

A Monetary History of the Ottoman Empire

The Ottoman Empire stood at the crossroads of intercontinental trade at the dawn of the era of capitalism. For the Ottomans coinage was a major symbol of sovereignty and the leading means of exchange. This volume examines the monetary history of that empire from its beginnings in the fourteenth century until the end of the First World War. Through a detailed examination of the currencies and related institutions of an empire which stretched from the Balkans through Anatolia, Syria, Egypt, and the Gulf to the Maghrib, the book demonstrates the complexity of the monetary arrangements and their evolution in response to both local developments and global economic forces. Currency debasements, inflation and the ensuing popular opposition are studied in a political economy framework. The volume also affords valuable insights into social and political history and the evolution of Ottoman institutions. This is an important book by one of the most distinguished economic historians in the field.

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4 10-akçe piece

Mehmed II, 875 H (1475), Novo Brdo

Copper mangırs (5–6)

- 5 Murad II (1421–44, 1445–51), Edirne
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Gold coins (7–9)

7 Sultani

Mehmed II, 883 H (1478–79), Kostantaniye

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Yapı ve Kredi Bank Collection, Istanbul

American Numismatics Society Collection, New York City

Ali Akyıldız, *Osmanlı Finans Sisteminde Kağıt Para*

Edhem Eldem's private collection

Archives of the Chamber of Commerce of Marseilles

Preface

This book is about money and empire and their place in the world economy at the dawn of the era of capitalism. In its approach and focus, I have been inspired by the insistence of a number of fine historians in recent decades, most notably Fernand Braudel, my former teacher Carlo Cipolla, V. Magalhaes-Godinho, Peter Spufford, and Pierre Vilar, that monetary history needs to be painted on a large canvas. The strong, two-way interaction between long-distance trade, specie flows, and money makes the adoption of a global perspective essential for understanding both the Middle Ages and the Early Modern period. This is especially the case for the monetary history of a large empire located at the crossroads of intercontinental trade, always vulnerable to the vicissitudes of commerce, payments, and monetary flows. Monetary history thus offers us the opportunity to transcend the compartmentalized approach of so many historians and emphasize the linkages between the history of the Eastern Mediterranean, or the Near East for the lack of a better term, and those of Europe and South Asia over a period of six centuries.

One important problem in monetary history concerns prices, inflation, and their impact on the Early Modern world. Ever since Earl J. Hamilton reformulated the monetarist argument with evidence gathered from Spanish archives more than half a century ago, historians have been debating the causal linkage between the arrival of large amounts of gold and silver from the Americas and the rise in prices in the Old World during the sixteenth and early seventeenth centuries. Most prominent amongst the defenders of this hypothesis in recent decades have been economic historians of monetarist persuasion and the adherents of the *Annales* School. More than two decades ago Ömer Lütfi Barkan provided the most notable attempt to insert the Ottoman case into the debate when he linked the Ottoman price increases until the 1580s to trade and specie inflows from Europe using a theoretical framework very similar to that of the *Annales* School. New evidence recently compiled by Michel Morineau has shown, however, that Hamilton's data were incomplete and that the volume of specie flows into Europe continued to increase during the seventeenth century even after

prices had begun to decline. His findings now cast serious doubt on the validity of the causal linkage between bullion inflows and inflation. A return now to the earlier debates in view of these recent findings might well provide new insights into the linkages between the western and eastern ends of the Mediterranean during the Early Modern era.

Unlike the limited number of earlier studies on Ottoman monetary history, therefore, the present volume will adopt an empire-wide perspective and focus on the whole of the Ottoman monetary system as much as on the individual parts and the linkages between them. To the extent made possible by the availability of sources, it will cover all regions of the Empire from the Balkans and Crimea through Syria, Egypt, and the Gulf to the Maghrib. Needless to say, the political, administrative, and economic linkages between the center and these regions varied enormously over time. Moreover, the latter were drawn into very divergent patterns of trade and payments flows from Western Europe to the Indian Ocean. The volume will thus emphasize the complexity and heterogeneity of these monetary arrangements and their evolution in response to both local developments and global economic forces. Such an empire-wide, "big picture" perspective on monetary history will offer, I hope, important insights into other questions, most notably into the history and evolution of Ottoman institutions and the very concept of empire, the nature of this entity and how the Ottomans themselves viewed it.

A better understanding of monetary history should also provide new insights into the economic and social history of these regions. When it came to the availability and use of money, many historians have long believed that credit was poorly developed and the markets in the Ottoman Empire were permanently starved for specie and coinage. For example, Fernand Braudel whose information about the Ottoman economy has not always been accurate, observes in his popular, three-volume work on the rise of capitalism:

Overall, commercial life in Turkey still had some archaic features . . . The reason was that money, the sinews of western trade, usually made only fleeting appearances in the Turkish Empire. Part of it found its way to the ever-open jaws of the sultan's treasury, some of it was used to oil the wheels of top-level trade, and the rest drained away in massive quantities to the Indian Ocean. The west was correspondingly free to use its monetary superiority on the Levant market . . .¹

There is no doubt that the Ottoman markets experienced periodic shortages of specie. There were also periods such as the second half of the seventeenth century when these shortages assumed a long-term character. In fact, the passage above alludes to developments during this period. It would not be appropriate, however, to characterize these shortages as a

¹ Fernand Braudel, *Civilization and Capitalism, Fifteenth to Eighteenth Century*, vol. III: *The Perspective of the World* (New York, NY: Harper and Row Publishers, 1982), 473.

permanent feature of Ottoman economic life from the fifteenth through the eighteenth centuries. In fact, there is overwhelming evidence from a broad range of archival and other sources that while the degree of monetization varied considerably over time and space, use of money in Ottoman lands was not limited to the urban population. With the increased availability of specie and the growth of economic linkages between the urban and rural areas especially in the sixteenth century, large segments of the rural population came to use coinage, through their participation in markets and because of state taxation of a wide range of economic activities. In addition, small-scale but intensive networks of credit relations developed in and around the urban centers. Peasants and nomads as well as artisans and merchants took part in these monetary transactions. Similarly, the eighteenth century witnessed the establishment of a new Ottoman currency, increasing availability of coinage and credit and growing linkages between Istanbul and the Ottoman currencies in different parts of the Empire.

Monetary history also raises important questions about the nature of state economic policies. The existing historiography has long emphasized that the Ottoman government intervened regularly in the economy to ensure the orderly provisioning of the urban economy, of the palace and the army, and more generally, to maintain the traditional balances between the peasant producers, guilds, and urban consumers. Within this conceptual framework, it has been argued that the permanent application and enforcement of price ceilings (*narh*) in urban areas was a typical example of Ottoman interventionism and rigidity in defense of a traditional order.

I have serious reservations about the sustainability of this picture. For one thing, there is a good deal of evidence that the Ottomans became increasingly more conscious, after the fifteenth century, about the limitations of interventionism in economic affairs. They learned that price ceilings which diverged substantially from the underlying market realities could not be enforced for long periods of time. For this reason, Ottoman interventionism became increasingly selective. It was used primarily for the provisioning of the capital city and the army and for selected commodities. Perhaps more importantly, the *narh* came to be considered not as permanent policy but as an instrument reserved for extraordinary conditions such as wars, exceptional difficulties in the provisioning of the capital city, or periods of monetary instability.

Because of the availability of only a small number of texts dealing with monetary problems, our knowledge about Ottoman monetary thought is rather limited. Nonetheless, it is still possible to trace its evolution by examining government practices. The latter suggest that Ottoman bureaucrats soon learned, if they did not already know, that state interventionism in monetary affairs was even more difficult than interventionism in trade and the urban economy since specie, coinage, and payments flows could evade official restrictions with much more ease than flows of commodities.

For this reason, they were, on the whole, flexible and pragmatic in their approach to money and monetary affairs. A reassessment of these monetary practices now should force us to reconsider our assumptions about Ottoman economic practices and the "Ottoman economic mind."

Yet another insight offered by monetary history is that of the long-term economic waves or conjunctures. There exists a strong, two-way interaction between monetary and economic conditions. On the one hand, monetary stability often helps pave the way for the expansion of trade and production. Similarly, monetary instability or shortages of specie often have adverse effects on credit, production, and trade. Conversely, economic prosperity or expansion of economic activity often enables the state to raise additional fiscal revenue which contributes to monetary stability. There exists, therefore, a good deal of correlation in the long term between the monetary and economic conditions. Study of the long-term monetary conditions and conjunctures in Ottoman history may reveal, therefore, new evidence regarding its long-term economic cycles and conjunctures.

Most economic historians agree, for example, that until the 1580s the sixteenth century was a period of demographic and economic expansion, at least in the core regions of the Empire. Evidence from monetary history is consistent with this picture. The verdict for the seventeenth century, on the other hand, is still mixed. Until recently, Ottoman historiography had depicted an empire in permanent decline after the sixteenth century. This paradigm is now being replaced by one that places greater emphasis on the state's ability to reorganize itself as a way of adapting to changing circumstances. This flexibility goes a long way toward explaining the longevity of the Empire. As a corollary to this paradigmatic shift, economic historians have been questioning whether the seventeenth and eighteenth centuries were simply a period of crisis and stagnation. A number of people have already emphasized the expansion of trade and the rise in production during the eighteenth century. There is a good deal that monetary history can offer this debate. The findings of this volume suggest that while the seventeenth century was a period of monetary instability and even disintegration, the old thesis of continuous decline can not be sustained. The eighteenth century until the 1780s was in fact a period of recovery for the Ottoman monetary system as a new currency was established and linkages between the center and the periphery of the Empire were strengthened. Obviously, these long-term trends have important economic and political implications.

The findings of this volume and my ongoing research on prices also indicate that the period of most rapid debasement and inflation in Ottoman history was not the late sixteenth and the early seventeenth centuries, the era of the so-called Price Revolution, as economic historians had come to believe, but the early decades of the nineteenth century before *Tanzimat*, a period of wars, internal rebellions, and reform. While the state benefited

from debasements, the latter also created strong political opposition. A political economy perspective will be particularly fruitful in the analysis of Ottoman debasements. Establishing in more detail the causes, magnitudes, and consequences of this rapid wave of price increases should thus shed considerable light not only on the economic and social history but also on the politics of that period.

Despite the considerable growth of research in Ottoman economic and social history in recent decades, monetary history has remained one of the least studied areas in the historiography of the Ottoman Empire and more generally of the Middle East. There does not exist a comprehensive study dealing with the basic features and the evolution of the monetary arrangements prevailing in different parts of the Empire, let alone the logic of the overall system if one existed. The available works by economic historians are rather dated and provide only partial coverage. The numismatics literature, on the other hand, while quite useful in illuminating many problem areas, remains limited in scope. Researchers in monetary history also face the dangers and challenges of a large body of literature going back to the chroniclers and court historians who have offered and then repeated over the centuries bits and pieces on money and state finances some of which is still useful but a good deal of which is incorrect and often misleading.² To sift out the good from the bad in this large body of material requires, at the very least, an independent construction of the monetary standards so that these narratives and assertions can be checked against more reliable forms of evidence.

It became clear at an early stage of the project that a long-term study of this kind would not be possible without detailed series on Ottoman monetary units. In view of the limited nature of the archival evidence from the mints and other sources, I relied extensively for this purpose on the often incomplete but rewarding evidence from the numismatics literature on Ottoman coinage. Using this large body of published materials along with archival materials, I was able to construct, for the first time, complete time series for the monetary standards (weight, fineness, and specie content) of the Ottoman currencies, not only for the silver *akçe* and *kuruş* and the gold *sultani* of the core regions but also for the *para*, *shahi*, *nasri* and *riyal* issued in the provinces. In this framework, a decline in the specie content of coinage and/or other types of numismatic evidence for the deterioration of their quality are taken as indications for the deterioration of state finances and/or growing shortages of specie in the economy at large. These series were then combined with and checked against the available evidence obtained from a wide range of sources, archival and otherwise, on the

² For example, M. Belen "Belin," *Türkiye İktisadi Tarihi* Hakkında Tetkikler, trans. M. Ziya (Istanbul: Devlet Matbaası, 1931); Ekrem Kolerkılıç, *Osmanlı İmparatorluğunda Para*, (Ankara: Doğu Ltd. Şirketi Matbaası, 1958).

exchange rates of these units against the leading European currencies. A large part of the analysis in this volume begins with the evidence and insights offered by these time series presented in detailed tables throughout the text. Nonetheless, those looking for a simple overview of Ottoman monetary history in terms of the well-known identity $M \times V = P \times Q$ will surely be disappointed because, as discussed in appendix three, even if crude approximations for the price level and the GNP can be attempted, we have virtually no information about the Ottoman money supply except for two points in time, 1460s and 1914.

Economic and social historians of the Middle East in the late Medieval and Early Modern eras are still unable to make sense of the most basic of monetary magnitudes involving prices, wages, and wealth even though intertemporal comparisons of these magnitudes are the most basic prerequisites for studying the *long durée*. With the construction of the time series for the standards of different Ottoman currencies, it will now be possible to study long-term trends in prices across the region and compare the Ottoman case with others in the Old World.

In recent years I have been working on another related project on the history of prices and wages in Istanbul and, to a more limited extent, other Ottoman cities from the middle of the fifteenth century until 1918. This project has utilized a large volume of account books prepared not only for state institutions such as the palace kitchen, but also for pious foundations (*vakıf*) and private individuals, annual lists of official price ceilings issued by the local authorities (*narh*) and other price and wage evidence available from the Ottoman archives. Some preliminary results from the price series have been incorporated into the present volume, most notably in chapters 7 and 12 and especially appendix two. Amongst other things, they show that a) debasements were the most important cause of Ottoman price inflation and b) prices in Istanbul expressed in grams of silver moved together with prices around the Mediterranean in the medium and long term. The latter result confirms once again that due to the strength of the maritime trade, the economy of the capital city remained well linked to economies thousands of miles away. Preliminary results also show that long-term price trends in other cities across the Empire, especially in the coastal regions, were not very different. The present volume, together with a forthcoming work on the history of prices, wages, and perhaps wealth should thus make it possible to compare the long-term evolution of the Ottoman economy with many others for which such series have already been constructed.

A brief note may be appropriate here about the photographs of coins and paper currency presented in the volume. My purpose in these selections has been to offer examples of the most common, most frequently used pieces. An attempt was also made to reflect the geographic range of mint activity. In these preferences I was driven by my concerns as an economic historian. I know that my numismatist friends would have preferred to see some rare

specimens in the following pages. While I have benefited enormously from the work of numismatists in recent years, and can only hope to make a partial payment in return with the present volume, I also came to realize their concerns and emphases are often very different from those of economic historians. In the last analysis, I feel that our respective preferences for these plates is a very telling example of our differences as well as common interests.

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To Yeşim

Note on transliteration

All Ottoman words including those with Arabic and Persian origins have been rendered in their Ottoman–Turkish spelling. Spellings for words, personal and place names commonly used in English have been retained. Diacritical marks are not used in the spelling of Arabic words.

Introduction

Trade, money, and states in the Mediterranean basin

Money is usually defined by economists in terms of its functions, most prominently as a means of exchange, but also as a means of payment, a unit of account and a store of value. These roles also articulate a logical explanation of how and why the use of money originated. In the economists' view, true money or full-fledged money needs to fulfill all of these functions. In fact, we know from its actual historical development that many forms of money performed only some of these functions.

Historically, the function of money as a means of payment appears to be older than its role as a means of exchange. Ancient rulers collected tribute and other forms of payment long before a market and the use of money as a means of exchange emerged. Even in a city like Carthage, and exclusively in the Persian empire, for instance, the coinage of money appeared solely for the purpose of providing a means of making military payments and not as a medium of exchange.¹ It is thus possible to have money without market exchange and market exchange without money as in the case of barter.² Barter was a costly and unwieldy system of exchange, however. With the establishment of a stable measure of value, exchange was greatly facilitated. Although many goods served in this capacity, metals eventually began to be employed both as a unit of account and a means of exchange. The general acceptability of metallic money in effect reduced transaction costs and stimulated the expansion of trade. As a result, monetization, the expansion

¹ Max Weber, *General Economic History* (Glencoe, IL: The Free Press, 1927), chapter 19. See also Michael Crawford, "Money and Exchange in the Roman World," *Journal of Roman Studies* 60 (1970), 40–48; and Michael F. Hendy, *Studies in the Byzantine Monetary Economy c. 300–1450* (Cambridge University Press, 1985) arguing the same for a much later period, for the Romans and the Byzantine state.

² A decline in the availability of money did not always lead to a decline in market exchange. When the former occurred, market exchange came under pressure but in some cases survived as barter and other practices, such as payment of taxes in kind, took over. For an example from Medieval India, see John Leyell, *Living Without Silver: the Monetary History of Early Medieval North India* (Delhi: Oxford University Press, 1990).

of the use of money, has been associated with commercialization, the emergence and spread of markets. Both the notion of money itself and the historical development of different forms of money depended critically on the institution of the market.³

Even more important than exchange and markets in the spread of the use of money was the expansion of long-distance trade. Many societies which possessed large resources in precious metals did not begin exploiting them until the development of trade called for plentiful supplies of money. An important forerunner of coined money was the precious metal bars privately stamped by merchants which appeared in Indian commerce and later in Babylonia and China. The *shekel* of the Ancient Near East was nothing but a piece of silver bearing the stamp of a certain mercantile family, which was recognized for conscientiousness in weighing. The Chinese *tael* was similarly a piece of bar silver stamped by the mercantile guilds. It is thus clear that exchange and trade preceded and created money rather than the other way around.⁴

States did not take over the creation of money and assume a monopoly of that process until later. In the form of coinage, money first appeared in seventh century BC Lydia, located not coincidentally, on the Anatolian coast, well within the trade networks of Antiquity. An important motive for the political authorities in issuing coin was to provide themselves a convenient means of extracting and mobilizing revenue. By issuing coin and demanding its use in tax payments, the states established both a definition of legal tender for state payments and a uniform standard for private exchange. Nonetheless, we should underline that money as a means of state payments is logically distinct from its function as a means of exchange.⁵

After the earliest coinage of the Greek city states circulated around the Aegean and the Mediterranean as a medium of exchange, the conquests of Alexander the Great were instrumental in their introduction to Egypt, the Persian Empire and northern India.⁶ The Roman Empire represented an important stage in the development of money and monetary systems. The political and economic unification of the Mediterranean basin and the lands beyond facilitated the emergence of a monetary system based on gold, silver and copper coinage in this large area. With state regulation of the standards of each, a reasonably well-defined relationship developed between the

³ Sanjay Subrahmanyam (ed.), *Money and the Market in India, 1100–1700* (Delhi: Oxford University Press, 1994), 1–19.

⁴ Paul Einzig, *Primitive Money, in Its Ethnological, Historical and Economic Aspects*, revised and enlarged edition (Oxford: Pergamon Press, 1966); Philip Grierson, *The Origins of Money* (University of London: The Athlone Press, 1977); Weber, *General Economic History*, 236–44; Pierre Vilar, *A History of Gold and Money, 1450–1920* (London: New Left Books, 1976), pp. 16–29.

⁵ Richard von Glahn, *Fountain of Fortune, Money and Monetary Policy in China, 1000–1700* (Berkeley and Los Angeles, CA: University of California Press, 1996), 18–20.

⁶ Philip Grierson, *Numismatics* (Oxford University Press, 1975), pp. 9–44.

different types of coinage. Gold was used for large transactions and for the store of wealth while bronze and later copper dominated the small daily transactions. Silver coinage occupied the middle ground. As prime examples of commodity money, the value of gold and silver coins remained closely linked to the commodity value of the metals they contained. In contrast, bronze and copper coinage often circulated as fiat money at values attached to them by the state which was above their metal content.⁷ The development of this system went hand in hand with the expansion of markets, the commercialization of the economy and the increasing use of money.⁸ Many of the monetary terms used in Europe and the Middle East during the modern era date back to the Roman period.

The Antiquity also took seriously the coinage monopoly of the state. The issuing of coinage has been considered an important symbol of sovereignty for rulers since the early coinage of Ancient Greece.⁹ The Romans' motives for issuing coinage went beyond the representation of sovereignty, however. Like the earlier states, the Romans needed some form of money in order to collect taxes and make payments to the soldiers, bureaucrats, and others. Perhaps more importantly, they were aware that there existed a linkage between the availability of money and the well being of the economy. Coinage was thus issued to facilitate exchange and trade and promote a better functioning economy.¹⁰

Monetization needs to be interpreted in a broader context, however. Although the main function of money or a monetary system was to facilitate the exchange of goods and services and discharge of fiscal and other obligations, the presence of money did more than simply reduce transaction costs. With the advent of money, economic relationships became more abstract and less personal. Cash payments tended to replace seasonal labor obligations, further weakening traditional means of maintaining power and influence. In the longer term, as payments were conventionalized and

⁷ Premodern states lacked the authority to maintain fiat currency for a long period of time. The ultimate example of fiat money is paper money which has virtually no commodity value. Before the modern era, paper currencies were successfully used only in China until the fourteenth century. Von Glahn, *Fountain of Fortune*, 48–70.

⁸ R. A. G. Carson, *Coins of the Roman Empire* (London and New York: Routledge, 1990); Keith Hopkins, "Taxes and Trade in the Roman Empire," *Journal of Roman Studies* 70 (1980), 101–25; E. Lo Cascio, "State and Coinage in the Late Republic and Early Empire," *Journal of Roman Studies* 71 (1981), 76–86; Louis C. West and Allan Chester Johnson, *Currency in Roman and Byzantine Egypt* (Princeton University Press, 1944); Richard Duncan-Jones, *Money and Government in the Roman Empire* (Cambridge University Press, 1994); and Marcello de Cecco, "Monetary Theory and Roman History," *The Journal of Economic History* 45 (1985), 809–22.

⁹ Thomas R. Martin, *Sovereignty and Coinage in Classical Greece* (Princeton University Press, 1985).

¹⁰ An excellent discussion is provided by Hopkins, in "Taxes and Trade," 101–25. The fiscalist position has been argued by Crawford, "Money and Exchange," 40–48 and Hendy, *Byzantine Monetary Economy*.

regularized, the expansion in the sphere of money had ever greater impact on society as well as the economy.¹¹

Ever since the first appearance of metal coins, the large geographical area from Persia in the east to western Europe, with the Mediterranean basin often providing the critical medium of interaction, has witnessed some of the most lively exchanges in the evolution of coinages. These exchanges were due, above all, to the maintenance of commercial contacts within and between these regions. Not only Ancient Greek, Roman, Sassanian, Byzantine, Islamic, and Western European coinage and design but also techniques of production and mint administration have interacted in this basin. The Mediterranean basin also remained in contact with the other two independent monetary traditions of the Old World, that of the Indian subcontinent and that of China together with east and southeast Asia.¹² Over the centuries, the Mediterranean and Indian traditions of coinage continued to be influenced by each other thanks to the maintenance of commercial linkages while the east and southeast Asian coinage pursued a mostly independent line until the modern era.¹³ Paper money was used in China sporadically between the eleventh and fourteenth centuries after having first appeared there several hundred years earlier. It reached Iran via the Mongols in the thirteenth century. Marco Polo, for example, refers to the use by the Mongols of paper money, which did not appear in Europe until the seventeenth century.

With the Germanic invasions, the monetary traditions as well as economy and commerce in the Mediterranean basin were divided into two branches. In the western provinces of the Roman Empire, the decline of population, trade, and the urban economy was accompanied by a sharp decrease in the availability and use of coinage and other forms of money. Gold disappeared and European coinage came to consist mostly of small silver pennies. An increasing proportion of payments began to be made in kind or in terms of labor. There thus emerged in feudal Europe a growing distinction between the standard of value and the means of exchange. The means of exchange

¹¹ For recent essays on the social impact of money, see Jonathan Parry and Maurice Bloch (eds.), *Money and the Morality of Exchange* (Cambridge University Press, 1989).

¹² Grierson, *Numismatics*, pp. 9–44. For the early evolution of monetary systems in India and Southeast Asia, see Leyell, *Living Without Silver*; and Robert S. Wicks, *Money, Markets and Trade in Early Southeast Asia, the Development of Indigenous Monetary Systems to AD 1400* (Ithaca, NY: Cornell University, Studies on Southeast Asia, 1992).

¹³ Grierson, *Numismatics*, 44–71; for the monetary system of Mughal India during the sixteenth and seventeenth centuries, see J. F. Richards (ed.), *The Imperial Monetary System of Mughal India* (Delhi: Oxford University Press, 1987). For a more general perspective emphasizing the continued commercial, monetary, and financial interaction between Europe and Asia during the Early Modern period, see Frank Perlin, “Monetary Revolution and Societal Change in the Late Medieval and Early Modern Times – a Review Article,” *Journal of Asian Studies* 45 (1986), 1037–48; and Frank Perlin, “Financial Institutions and Business Practices across the Euro-Asian Interface: Comparative and Structural Considerations, 1500–1900,” in Hans Pohl (ed.), *The European Discovery of the World and its Economic Effects on pre-Industrial Society, 1500–1800* (Stuttgart: Franz Steiner, 1990), 257–303.

were sometimes coins but more often other commodities and primitive moneys, foods, spices, cloth, jewelry, and animals. Barter or other forms of moneyless exchanges also became widespread. Coins were in many respects no more money than many other commodities. Only in international trade were they still preferred as a means of exchange to any other commodity.¹⁴

Since the urban economy and economic activity remained stronger in the eastern Mediterranean, the Roman traditions of gold, silver, and copper coinage continued to flourish in the Byzantine Empire.¹⁵ Until the eleventh century, the gold *nomizma* or *bezant* of the Byzantine Empire unified the Mediterranean as “the dollar of the Middle Ages.”¹⁶ When the Islamic states began to expand from Arabia and Syria in the seventh century, the two economies they came into contact with, the Byzantine and the Sassanian, already were highly monetized. From the outset, the Islamic rulers attempted to integrate these established monetary systems into their own fiscal and economic framework. The first truly Islamic coins were issued as part of the famous monetary reform of Caliph Abd al-Malik in AD 696–97.¹⁷ These efforts were mostly successful, and one of the salient features of almost every Islamic state in the Middle Ages, stretching from Spain to the Indian subcontinent, has been the prominent role of gold, silver, and copper coinage. In Islam too, issuing of coinage as well as having prayers read for one’s name, “*sahib-i sikke ve hutbe*,” came to be considered the most important symbols of sovereignty for a ruler.¹⁸ In short, Islamic states were influenced by and carried on many of the monetary traditions of the Mediterranean basin.

From a numismatics perspective, the common denominators of Islamic coinage were their almost entirely epigraphic character and the use of Arabic script which contrasted both with the pictorial coin types and the

¹⁴ Peter Spufford, *Money and its Use in Medieval Europe* (Cambridge University Press, 1988), 7–105; also, Carlo M. Cipolla, *Money, Prices, and Civilization in the Mediterranean World, Fifth to Seventeenth Century* (Princeton University Press, 1956), 3–11; Cipolla, “Currency Depreciation in Medieval Europe,” *Economic History Review* 15 (1963), 413–22 and Marc Bloch, *Esquisse d’une Histoire Monétaire de l’Europe* (Paris: Librairie Armand Colin, 1954), 3–28. Such a breakdown of the monetary system and the shift to a barter economy occurred, of course, not only in feudal Europe but in many other societies at other times although perhaps not always so dramatically.

¹⁵ Hendy, *Byzantine Monetary Economy*, and P. Grierson, *Byzantine Coins* (London: Methuen & Co. Ltd., 1982); also West and Johnson, *Currency in Roman and Byzantine Egypt*.

¹⁶ Robert S. Lopez, “The Dollar of the Middle Ages,” *The Journal of Economic History* 11 (1951), 209–34; Cipolla, *Money, Prices and Civilization*, 13–23; and Robert S. Lopez and W. Raymond Irving, *Medieval Trade in the Mediterranean World, Illustrative Documents* (New York, NY: Columbia University Press, 1955), 10–16.

¹⁷ P. Grierson, “The Monetary Reforms of ‘Abd al-Malik,” *The Journal of the Economic and Social History of the Orient* 3 (1960), 241–64; and Andrew S. Ehrenkreutz, “Monetary Aspects of Medieval Near Eastern Economic History,” in M. A. Cook (ed.), *Studies in the Economic History of the Middle East* (London: Oxford University Press, 1970), 38–41.

¹⁸ The right to issue *sikke* applied only to gold and silver coinage. From the beginning, the Islamic tradition regarded copper coinage as an essentially local affair. See S. Album, *A Checklist of Islamic Coins*, second edition (Santa Rosa, CA: S. Album, 1998), 9.

Latin characters that dominated Europe.¹⁹ Despite these external differences, however, the two traditions continued to interact throughout the Middle Ages thanks to the strength of the commercial linkages across the Mediterranean. The traditional Islamic denominations were the gold *dinar*, the silver *dirham* and the copper *fels* or *fulus*, terms which had Roman, Antiquity and Byzantine origins, respectively. Late medieval Europe, in turn, owed and borrowed much from Islamic monetary practices and traditions. In the twelfth and thirteenth centuries, in the waning days of Byzantine economic and commercial power, the Islamic gold *dinars* provided an internationally recognized standard of payment and sometimes served as the medium of exchange around the Mediterranean, replicating the role played earlier by the *nomizma*.²⁰ Other commercial and monetary forms were also exchanged across the Mediterranean. The commenda, for example, the most popular type of business partnership in medieval Europe owes its origins to the *mudaraba* of medieval Islamic societies and found its way through trade across the Mediterranean to western Europe. There is a good deal of debate as to whether the European bills of exchange were influenced by the Islamic *suftadja* and *hawala*.²¹

In Islamic states, too, the monetary practices of governments were conditioned by the needs of markets and especially long-distance trade and recurring shortages of specie and coinage that affected all medieval economies. Even though the influence of merchants in these states was limited, they were listened to and tolerated by the rulers because of their important economic role. In comparison to the Italian city states, for example, the medieval Islamic states were not the states of merchants, but most often, the states were not against them either.²² Most Islamic states made efforts to maintain steady supplies of coinage. The authorities often adopted free minting in order to encourage and increase the availability of coinage. Even more importantly, many states were careful not to adopt interventionist practices and allowed money markets to function on their own in order to maintain the circulation of specie and coinage.²³

¹⁹ Michael L. Bates, "Islamic Numismatics, Sections 1–4," *Middle East Studies Association Bulletin* 12/3 (1978), 1–16; 12/4 (1978), 2–18 and 13/1 (1979), 3–21; and Ehrenkreutz, "Monetary Aspects," 37–50.

²⁰ Cipolla, *Money, Prices and Civilization*, 13–23; Andrew S. Ehrenkreutz, "Studies in the Monetary History of the Near East in the Middle Ages," *Journal of the Economic and Social History of the Orient* 2 (1959), 128–61; and A. M. Watson, "Back to Gold – and Silver," *The Economic History Review* 20 (1967), 1–34.

²¹ Abraham L. Udovitch, "At the Origins of the Western Commenda: Islam, Israel, Byzantium," *Speculum* 37 (1962), 198–207 and Elyahu Ashtor, "Banking Instruments between the Muslim East and the Christian West," *Journal of European Economic History* 1 (1972), 553–73.

²² A. L. Udovitch, "Merchants and *Amirs*: Government and Trade in Eleventh Century Egypt," *Asian and African Studies* 22 (1988), 53–72.

²³ S. D. Goitein, *A Mediterranean Society, the Jewish Communities of the Arab World as Portrayed in the Documents of the Cairo Geniza*, vol. I: *Economic Foundations* (Berkeley and Los Angeles, CA: University of California Press, 1967), 229–66; Gilles P. Hennequin,

One state with considerable influence on Ottoman monetary practices was that of the Ilkhanids, the Mongols of Persia. Thanks to Mongol control of the long-distance trade routes from China to Western Asia where they were connected to merchants arriving from Europe, the Ilkhanids had access to large amounts of silver. After converting to Islam towards the end of the thirteenth century, they established a new monetary system in Persia and went on to produce prodigious quantities of gold and silver coinage which included some of the most interesting examples of calligraphic engraving by an Islamic state. The network of Ilkhanid mints increased dramatically to more than 200 locations, mostly in western and northern Persia but also in eastern and central Anatolia, which was ruled directly from the capital city of Tebriz. The quality and the abundance of Ilkhanid coinage provides strong evidence for the revival of economic and commercial activity both in Persia and Anatolia during the thirteenth century.²⁴

While the states of Antiquity and medieval Islam took the coinage monopoly seriously, in feudal Europe the rule was the appropriation of the coinage function by numerous jurisdictions and their proprietors. The coinage right remained officially reserved for the king or the emperor, but the actual manufacture of coins was carried out by an association of handicraft producers. The revenue from the coinage business thus fell to the individual coinage lord and the latter began to derive considerable revenue from seigniorage or minting fees. With the rising importance of taxation as a source of revenue, there emerged a new need for steady supplies of coinage. An even greater tendency for debasement arose from the growth of government expenditure and budget deficits which steadily increased with the consolidation of centralized states and the rise in the costs of warring and military spending, especially from the fourteenth century onwards.²⁵ There were losers as well as winners from debasements, however, and whether strong or weak money prevailed often depended on the balances of power between those that held onto state power and benefited from debasements and those that stood to suffer from a sliding currency and spiraling prices.²⁶

“Points de vue sur l’Histoire Monétaire de l’Égypte Musulmane au Moyen Age,” *Annales Islamologiques*, Institut Français d’Archéologie Orientale du Caire, 12 (1974), 3–44 and Gilles P. Hennequin, “Nouveaux Aperçus sur l’Histoire Monétaire de l’Égypte au Moyen Age,” *Annales Islamologiques*, Institut Français d’Archéologie Orientale du Caire, 12 (1974), 179–215; Bates, “Islamic Numismatics,” 1–16; 2–18 and 3–21. For a brief but insightful discussion of the importance of numismatics and metrology for the historiography of Islamic societies, also see R. Stephen Humphreys, *Islamic History, a Framework for Inquiry*, revised edition (Princeton University Press, 1991), 49–53.

²⁴ John Masson Smith Jr. and F. Plunkett, “Gold Money in Mongol Iran,” *Journal of the Economic and Social History of the Orient* 11 (1968), 275–97 and John Masson Smith Jr., “The Silver Currency of Mongol Iran,” *Journal of the Economic and Social History of the Orient* 12 (1969), 16–41; also M. A. Seifeddini, *Moneti Ilkhanov XIV veka* (Baku: 1968).

²⁵ Cipolla, “Currency Depreciation in Medieval Europe,” 413–22.

²⁶ For an insightful account, see Spufford, *Money and its Use*, chapter 13.

Trade and especially payments along the Mediterranean had been dominated by the merchants and currency systems from the eastern end during most of the Middle Ages. As late as the thirteenth century, the eastern Mediterranean and the Near East enjoyed a higher degree of commercialization, monetization, and sophistication of the related institutions.²⁷ However, a major shift was already underway in Europe beginning in the eleventh century. Over the following two centuries, the growth of trade and monetization were supported by the expansion of silver coinage.²⁸ With the reappearance of gold in the thirteenth century, European coinage returned to a three tiered structure of gold, silver, and copper.²⁹ Once again, trade and money went hand in hand. The currencies of the commercially prospering Italian city states began to dominate the Mediterranean and European trade.

The competition between the gold coinage of the city states was eventually won by the Venetian ducat. By the second half of the fourteenth century, the ducat had gained the position of prominence as the most important coin and the principal standard for commercial payments around the Mediterranean and beyond. In order to facilitate trade, scores of European states adopted its standards for their own gold coinage.³⁰ Later, during the sixteenth century, large inflows of gold and silver from the Americas were to change fundamentally the monetary landscape of the Old World, paving the way for the emergence of both trade and monetary flows on a global scale. Increased availability of specie also made possible the minting of larger silver coins in America and Europe. Along with rising European influence in the world markets, these coins became the globally recognized standards and means of exchange during the seventeenth century.

While rulers and states exercised their powers by trying to collect seigniorage by coining a higher value of precious metals than the amount they paid for them and by regulating the relative values in coins of gold, silver, and billon, actions by individuals in the private realm contributed just as much to the development of money and monetary systems. In sixteenth-century Europe, for example, merchant bankers and money-lenders developed an intensive network of payments flows in and around

²⁷ Janet L. Abu-Lughod, *Before European Hegemony, The World System AD 1250–1350* (New York and Oxford: Oxford University Press, 1989), Parts I and II.

²⁸ R. S. Lopez, *The Commercial Revolution of the Middle Ages, 950–1350* (Cambridge University Press, 1976), 56–122 and Spufford, *Money and its Use*, pp. 240–66.

²⁹ Bloch, *Esquisse d'une Histoire Monétaire de l'Europe*, 3–78; R. S. Lopez, "Back to Gold, 1252," *Economic History Review* second series, 9 (1956), 219–40; Watson, "Back to Gold – and Silver" 1–34; Spufford, *Money and its Use*, pp. 267–88.

³⁰ Spufford, *Money and its Use*, 267–88; Herbert E. Ives and Philip Grierson, *The Venetian Gold Ducat and its Imitations* (New York: The American Numismatic Society, 1954); Jere L. Bacharach, "The Dinar Versus the Ducat," *International Journal of Middle Eastern Studies* 4 (1973), 77–96. For the beginning of Ottoman gold coinage in the second half of the fifteenth century, see chapter 4.

local fairs through the use of bills of exchange, as an example of truly international private money.³¹ On the other end of the scale, in Mughal India, it was the widespread use of small denominations of coinage or “humble” money by the rural population which tied the rural society and economy to the larger regional and world economies by a web of money, credit and market transactions and gave the Mughal monetary system its distinct character. As Frank Perlin has argued in the context of eighteenth-century western India, it would in fact be impossible to understand the monetary systems of the Old World in the early modern era, without understanding the role played by humble money and the ordinary people.³²

Ottoman economic policies

Virtually every state in the Old World had to address a common range of economic problems during the late Medieval and Early Modern periods. The most basic of these problems were related directly to the maintenance of the states themselves. The provisioning of the capital city, the armed forces, and to a lesser extent other urban areas, taxation, support, and regulation of long-distance trade, and maintaining a steady supply of money were amongst the leading concerns of economic policy.³³

Even though the capacity of states to deal with these economic problems was initially quite limited, important changes took place during these centuries in the capacities, institutional equipment, and even the nature of governments. With these changes came a corresponding transformation of the scope and effectiveness of government intervention in economic affairs. It was precisely this struggle to build the organizations and institutions necessary for the pursuit of these policy goals that led to the emergence of more powerful state apparatuses in much of Europe and parts of Asia.³⁴

One important determinant of the specific forms taken by economic

³¹ Marie-Therese Boyer-Xambeu, Ghislain Deleplace and Lucien Gillard, *Monnaie Privée et Pouvoir des Princes* (Paris: Editions du CNRS, 1986).

³² Frank Perlin, “Money-Use in Late Pre-Colonial India and the International Trade in Currency Media” in J. F. Richards (ed.), *Imperial Monetary Systems in Early Modern India* (Delhi: Oxford University Press, 1987), 232–373.

³³ One should add the qualification that for most societies in the late Medieval and Early Modern periods, it is difficult to talk about an economic sphere separate from the political, administrative, and fiscal. See Edward Miller, “France and England,” in “The Economic Policies of Governments,” M. M. Postan, E. E. Rich and E. Miller (eds.), *The Cambridge Economic History of Europe* vol. 3 (1963), 282–91; for a similar discussion of the problems of economic policy in Islamic societies, see Sabri F. Ülgener, “İslam Hukuk ve Ahlak Kaynaklarında İktisat Siyaseti Meseleleri,” *Ebulula Mardin’e Armağan* (Istanbul: Kenan Matbaası, 1944), pp. 1151–89; and Sabri F. Ülgener, *Darlık Buhranları ve İslam İktisat Siyaseti* second edition (Ankara: Mayaş Yayınları, 1984), 66–102.

³⁴ Charles Tilly provides a detailed examination of this process with specific reference to the provisioning of urban centers in Europe: Charles Tilly, “Food Supply and Public Order in Modern Europe,” in C. Tilly (ed.), *The Formation of Nation States in Western Europe* (Princeton University Press, 1975), 35–151.

policies and institutions was the nature of the state and state–society relations. State economic policies did not pursue public interest in some abstract sense of the term. Instead, both the goals and design of economic policies as well as institutions related to their implementation were shaped by the social structure, the relationship between state and society, the interests of different social groups aligned with or represented by the state, and more generally, by the social and political influences acting on the state.

To put it differently, social actors molded state policy. Interest and pressure groups and social classes sought to protect and promote their interests through the state. In some cases the influence of a particular social group was so strong that the state simply acted in their interest, became their state. In other cases, the state was in the hands of a bureaucracy which acted independently or was insulated from these social groups.

To understand the nature of Ottoman economic policies or practices, it is thus essential to examine the nature of the Ottoman state and its relations with different social groups. Until late in the fifteenth century, there existed a considerable amount of tension in Ottoman society between the Turkish landed aristocracy of the provinces, who were deeply involved in the territorial conquests, and a bureaucracy at the center made up mostly of converted slaves (*devşirme*), with the balance of power often shifting between the two. The successful centralization drive of Mehmed II in the second half of the fifteenth century moved the pendulum again, this time decisively. The landed aristocracy was defeated, state ownership was established over privately held lands, and power concentrated in the hands of the central bureaucracy. After this shift, the policies of the government in Istanbul began to reflect much more strongly the priorities of this bureaucracy. The influence of various social groups, not only of landowners but also of merchants and moneychangers, over the policies of the central government remained limited.

The central bureaucracy tried, above all, to create and reproduce a traditional order with the bureaucracy at the top. The provisioning of the urban areas, long-distance trade and imports were all necessary for the stability of that social order. The state tolerated and even encouraged the activities of merchants, domestic manufacturers more or less independent of the guilds and moneychangers as long as they helped reproduce that traditional order.³⁵ Despite the general trend towards decentralization of the Empire during the seventeenth and eighteenth centuries, merchants and

³⁵ Cipolla argues that there was a virtual identity between the merchants and the state in the trading towns of medieval Italy. “More than once the action of the guild of merchants seemed to imply the affirmation, *l'état c'est moi*.” Ottoman merchants during the Early Modern era could not possibly make a similar claim. Instead, as Udovitch has concluded, for the merchants of eleventh-century Egypt, Ottoman merchants could at best proclaim “*l'état n'est pas contre moi*.” Cipolla, “Currency Depreciation,” 397 and Udovitch, “Merchants and *Amirs*,” 53–72.

domestic producers who were the leading proponents and actual developers of mercantilist policies in Europe, never became powerful enough to exert sufficient pressure on the Ottoman government to change or even modify these traditional policies. Only in the provinces, locally powerful groups were able to exert increasing degrees of influence over the provincial administrators.

In a recent essay, Mehmet Genç examined the economic functions and priorities of the central bureaucracy based on years of research on the archives of the central government.³⁶ After cautioning that these never appeared in purely economic form but always together with political, religious, military, administrative, or fiscal concerns and pronouncements, he argues that it is, nonetheless, possible to reduce the Ottoman priorities in economic matters to three basic principles. The first priority was the provisioning of the urban economy including the army, the palace, and the state officials. The government wanted to assure a steady supply of goods for the urban economy and especially for the capital city. The bureaucracy was very much aware of the critical role played by merchants in this respect. With the territorial expansion of the Empire and the incorporation of Syria and Egypt during the sixteenth century, long-distance trade and the control of the intercontinental trade routes became increasingly important and even critical for these needs.³⁷ Foreign merchants were especially welcome because they brought goods not available in Ottoman lands. Ottoman encouragement of European merchants and the granting of various privileges, concessions and capitulations as early as the sixteenth century can be best understood in this context. Occasionally, however, foreign merchants also contributed to domestic shortages by exporting scarce goods and the Ottomans had to impose temporary prohibitions on exports.³⁸

The emphasis on provisioning necessitated an important distinction

³⁶ Mehmet Genç, "Osmanlı İktisadi Dünya Görüşünün İlkeleri," *İstanbul Üniversitesi Edebiyat Fakültesi Sosyoloji Dergisi* 3. Dizi 1 (1989), 175–85; for a similar argument see Halil İnalçık, "The Ottoman Economic Mind and Aspects of the Ottoman Economy," in Michael Cook (ed.), *Studies in the Economic History of the Middle East* (London: Oxford University Press, 1970), pp. 207–18; and Halil İnalçık and Donald Quataert (eds.), *An Economic and Social History of the Ottoman Empire, 1300–1914* (Cambridge University Press, 1994), 44–54. For Ottoman economic thought before the nineteenth century, also see Ahmed Güner Sayar, *Osmanlı İktisat Düşüncesinin Çağdaşlaşması* (Istanbul: Der Yayınları, 1986), pp. 55–165; and Ülgener, *Darlık Buhranları*, pp. 66–102.

³⁷ Halil İnalçık, "The Ottoman State: Economy and Society, 1300–1600," H. İnalçık and D. Quataert (eds), *An Economic and Social History of the Ottoman Empire, 1300–1914* (Cambridge University Press, 1994), 48–52 and 179–379; Lütfi Güçer, "XVI–XVIII. Asırlarda Osmanlı İmparatorluğunun Ticaret Politikası," *Türk İktisat Tarihi Yıllığı*, No. 1 (İstanbul Üniversitesi İktisat Fakültesi, 1987), 1–128; also Palmira Brummett, *Ottoman Seapower and Levantine Diplomacy in the Age of Discovery* (Albany, NY: State University of New York Press, 1994), 131–74.

³⁸ Halil İnalçık, "İmtiyazat," *Encyclopedia of Islam, Second Edition* (Leiden and New York: E. J. Brill, 1971); and Halil İnalçık, "The Ottoman Economic Mind and Aspects of the Ottoman Economy," in Michael Cook (ed.), *Studies in the Economic History of the Middle East* (Oxford University Press, 1970), 207–18.

between imports and exports. Imports were encouraged as they added to the availability of goods in the urban markets. In contrast, exports were tolerated only after the requirements of the domestic economy were met. As soon as the possibility of shortages emerged, however, the government did not hesitate to prohibit the exportation of basic necessities, especially foodstuffs and raw materials.

The contrasts between these policies and the practices of mercantilism in Europe are obvious. It would be a mistake, however, to identify the concern with the provisioning of urban areas solely with Ottomans or Islamic states.³⁹ Frequent occurrences of crop failures, famine and epidemics combined with the primitive nature of the available means of transport led most if not all medieval governments to focus on the urban food supply and more generally on provisioning as the key concerns of economic policy. These Ottoman priorities and practices had strong parallels in the policies of the governments in western and southern Europe during the late Middle Ages, from the twelfth through the fifteenth centuries.⁴⁰ The contrasts between Ottoman and European economic policies emerged during the era of mercantilism in Europe.⁴¹

Genç also points out that a second priority of the center was fiscal revenue. The government intervened frequently to collect taxes from a broad range of economic activities and came to recognize, in the process, that at least in the longer term, economic prosperity was essential for the fiscal strength of the state. In the shorter term and especially during periods of crises, however, it did not hesitate to increase tax collections at the expense of producers.

A third priority, which was closely tied to the other two, was the preservation of the traditional order. For the Ottomans, there existed an

³⁹ İnalçık, "The Ottoman Economic Mind"; and Bruce Masters, *The Origins of Western Economic Dominance in the Middle East: Mercantilism and the Islamic Economy in Aleppo, 1600–1750* (New York University Press, 1988), chapter 6.

⁴⁰ Miller, "France and England," pp. 290–340; and C. M. Cipolla, "The Economic Policies of Governments, The Italian and Iberian Peninsulas," in M. M. Postan, E. E. Rich and E. Miller (eds.), *Cambridge Economic History of Europe*, vol. III, 397–429.

⁴¹ The Ottomans were not unaware of mercantilist thought and practice. Early eighteenth-century historian Naima, for example, defended mercantilist ideas and practices and argued that if the Islamic population purchased local products instead of the imports, the akçe and other coinage would stay in Ottoman lands; see Naima, *Tarih-i Naima*, Zuhuri Danişman, Istanbul: Danişman Yayınevi, 1968, vol. IV, 1826–27 and vol. VI, 2520–25; also İnalçık, "The Ottoman Economic Mind", 215 and Sayar, *Osmanlı İktisat Düşüncesi*, 110–12. One important reason why mercantilist ideas never took root in Ottoman lands was that merchants and domestic producers whose ideas and perspectives were so influential in the development of mercantilism in Europe did not play a significant role in Ottoman economic thought. Instead, the priorities of the central bureaucracy dominated Ottoman economic thought and policy. For mercantilism in Europe, compare F. Eli Heckscher, *Mercantilism*, revised second edition (London: George Allen and Unwin, 1955); D. C. Coleman, *Revisions in Mercantilism* (London: Methuen and Co., 1969); and Robert B. Ekelund, Jr. and Robert F. Hebert, *A History of Economic Theory and Method* (New York, NY: McGraw Hill, 1990), 42–72.

ideal social order and balances between social groups such as the peasantry, guilds and the merchants. The sultan and the bureaucracy were placed at the top of this social order. There was some flexibility in this view. The ideal of what constituted this traditional order and the social balances may have changed over time with changes in the economy and society. The government took care to preserve as much as possible the prevailing order and the social balances including the structure of employment and production. From this perspective, for example, rapid accumulation of capital by merchants, guild members or any other group was not considered favorably since it would lead to the rapid disintegration of the existing order.⁴²

As a result, the government's attitude towards merchants was profoundly ambiguous. On the one hand, merchants, large and small, were considered indispensable for the functioning of the urban economy. Yet, at the same time, their profiteering often led to shortages of basic goods bringing pressure on the guild system and more generally the urban economy. Thus the central administration often considered as its main task the control of the merchants, not their protection. At the same time, however, the control of merchants was much more difficult than the control of guilds. While the guilds were fixed in location, the merchants were mobile. Needless to say, the official attitude towards financiers, and moneychangers (*sarrafs*) was similarly ambiguous.⁴³

In pursuit of these priorities, the Ottoman government did not hesitate to intervene in local and long-distance trade to regulate the markets and ensure the availability of goods for the military, palace, and more generally, the urban economy. In comparison to both Islamic law and the general practice in medieval Islamic states, the early Ottomans were definitely more interventionist in their approach. In economic and fiscal affairs as well as in many administrative practices, they often issued their own state laws (*kamun*) even if those came into conflict with the *shariat*. The practices they used such as the enforcement of regulations (*hisba*) in urban markets and price ceilings (*narh*) had their origins in Islamic tradition but the Ottomans relied more frequently on them.⁴⁴

⁴² Sabri F. Ülgener, *İktisadi İnhitat Tarihimizin Ahlak ve Zihniyet Meseleleri* (İstanbul Üniversitesi İktisat Fakültesi, 1951), 92–189.

⁴³ Huri İslamoğlu and Çağlar Keyder, “Agenda for Ottoman History,” *Review, Fernand Braudel Center* 1 (1977), 31–55.

⁴⁴ Ülgener, “İslam Hukuk ve Ahlak Kaynaklarında,” pp. 1151–1189; Mübahat S. Kütükoğlu, *Osmanlılarda Narh Müessesesi ve 1640 Tarihli Narh Defteri* (İstanbul: Enderun Kitabevi, 1983), 3–38; Sayar, *Osmanlı İktisat Düşüncesi*, 55–165; M. Çağatay Uluçay, “Narh,” *Gediz* 5/55 (1942); for an idealized interpretation of *narh*, see Ahmet Tabakoğlu, “Osmanlı Ekonomisinde Fiyat Denetimi,” in S. F. Ülgener'e Armağan, *İstanbul Üniversitesi İktisat Fakültesi Mecmuası* 43 (1987), 111–50. For the texts of late fifteenth and early sixteenth century laws regulating the markets in large Ottoman cities, see Ömer Lütfi Barkan, “Bazı Büyük Şehirlerde Eşya ve Yiyecek Fiyatlarının Tesbit ve Teftişi Hususlarını Tanzim Eden Kanunlar,” *Tarih Vesikaları* 1/5 (1942), 326–40; 2/7 (1943), 15–40; and 2/9 (1943), 168–77. A detailed inventory of Ottoman practices for ensuring the grain supply of the urban areas is

Genç's scheme is very useful in analyzing the priorities and intentions of the Ottoman bureaucracy. As Genç himself emphasizes, however, priorities and intentions need to be distinguished from the actual policies. Whether the governments succeeded in bringing about the desired outcomes through their interventions depended on their capabilities. It has already been argued that there existed serious limitations on the administrative resources, organization, and capacity of the states in the late Medieval and Early Modern periods. They did not have the capacity to intervene in markets comprehensively and effectively. The mixed success of government actions inevitably led the Ottoman authorities to recognize the limitations of their power. As a result, Ottoman governments moved away from a position of comprehensive interventionism as practiced during the reign of Mehmed II (1444 and 1451–81) towards more selective interventionism in the later periods.

Unfortunately, this evolution and the more selective nature of government interventionism after the fifteenth and sixteenth centuries has not been adequately recognized.⁴⁵ The laws issued by Mehmed II and his immediate successors continue to be referred to as examples of government interventionism in the economy. The inability of many historians to make a more realistic assessment about interventionism is primarily due to a state-centered perspective. In addition, there are a number of practical reasons why archival evidence has misled historians to exaggerate both the frequency and the extent of state intervention in the economy. One basic source of error has been the unrepresentative nature of the available material. Each government intervention is typically recorded by a document in the form of an order to the local judge (*kadı*) or some other authority. In contrast, there are no records for the countless numbers of occasions when the government let the markets function on their own. Faced with this one sided evidence, many historians have concluded that state intervention and regulation was a permanent fixture of most markets at most locations across the Empire.

The case of the official price ceiling (*narh*) lists provides an excellent example in this respect. After collecting a few of these from the court archives, many have assumed that *narh* was a permanent fixture of urban economic life. In fact, my recent searches through all of the more than thousand registers of three of Istanbul's courts, those of the Old City, Galata, and Üsküdar from the fifteenth through mid-nineteenth centuries indicate that *narh* lists were not prepared regularly. They were issued primarily during extraordinary periods of instability and distress in the

available from Lütfi Güçer, *XVI. ve XVII. Yüzyıllarda Osmanlı İmparatorluğunda Hububat Meselesi* (İstanbul Üniversitesi İktisat Fakültesi, 1964).

⁴⁵ One notable exception is Ahmed Güner Sayar who points to a change in Ottoman attitudes towards *narh* after 1650. See, Sayar, *Osmanlı İktisat Düşüncesi*, 73–74.

commodity and/or money markets when prices, especially food prices, tended to show sharp fluctuations or upward movements. Wars, crop failures, other difficulties in provisioning the city, and monetary instabilities such as debasements or reforms of coinage were examples of these extraordinary periods. In the absence of such problems, however, there were long intervals, sometimes lasting for decades, when the local administrators did not issue *narh* lists.⁴⁶

Another bias is related to the fact that a large part of the available documents provide evidence of state intervention directly related to the economy of the capital city.⁴⁷ This evidence has led many historians to assume that the same pattern applied to the rest of the Empire. In fact, Istanbul was unique both in terms of size and political importance. With its population approaching half a million, it was the largest city in Europe and West Asia during the sixteenth century. As was the case with monster cities elsewhere, government economic policy often revolved around it. In contrast, the central government was much less concerned about the provisioning of other urban centers, the state organization was not as strong there and the local authorities, who were appointed by the center, were more willing to cooperate with the locally powerful groups, the guild hierarchy, merchants, tax collectors and moneychangers.⁴⁸

A more realistic assessment of the nature of Ottoman state interventionism in the economy is long overdue. When the biases of archival evidence and the limitations on the power and capabilities of the state are taken into account, Ottoman policy towards trade and the markets, is best characterized not as permanent and comprehensive interventionism, but as selective interventionism. In the later periods, interventions were used primarily for the provisioning of selected goods for the capital city and the army and during extraordinary periods when shortages reached crisis conditions.

⁴⁶ *Narh* lists were issued most frequently during 1585–1640 and 1785–1840. These were both periods of monetary and price instability as will be examined in chapters 8 and 12. Otherwise, there were long stretches, often decades, when no *narh* list was issued in the city of Istanbul. This clear pattern would not change even if some of the *narh* lists are missing from the court archives. The search for the *narh* lists was undertaken as part of the ongoing work on the history of prices and wages in Istanbul. For preliminary results of that study, see appendix II.

⁴⁷ Istanbul was a giant, consuming city dependent on its vast hinterland. The classic work on the economy of the capital city and the nature of state intervention in that economy remains Robert Mantran, *Istanbul dans la seconde moitié du XVII^e siècle* (Paris: 1962), 233–86. Also İnalcık and Quataert (eds.), *Economic and Social History of the Ottoman Empire*, 179–87.

⁴⁸ See, for example, Halil İnalcık, “Bursa and the Commerce of the Levant,” *Journal of the Economic and Social History of the Levant* 3 (1960), 131–47; Masters, *Origins of Western Economic Dominance*; and Daniel Goffman, *Izmir and the Levantine World, 1550–1650* (Seattle, WA: University of Washington Press, 1990).

Money, economy, and the Ottoman state

In the coinage they issued and in their monetary practices, the Ottomans were influenced by and became the carriers of the great monetary traditions of the Old World and especially the Mediterranean basin, from the Roman and Byzantine empires to the medieval Islamic states, the Mongols of Persia, Italian city states, and the Spanish Empire after the conquest of the Americas. Before we examine these monetary practices in the rest of the volume, however, we need to consider the most basic questions: why did the Ottomans issue coinage and why did they strive, over many centuries, to maintain a stable monetary system?

First, following the Islamic tradition, the Ottomans accepted *sikke* (coin) along with *hutbe* (prayer in the ruler's name) as the two symbols of sovereignty. The sixteenth-century Ottoman historian Ali, for example, considered the *hutbe* and *sikke*, the "two special divine gifts," and distinguished between the abstractness of the former and the concreteness of the latter. For him, the *hutbe* was an expression of the "idea of the greatness of the royal prestige" and a reminder to the subjects of the obedience due to their ruler, while the *sikke* transmitted the message of "royal power" in a clearly expressed and written down manner. As they circulated from person to person, area to area, the gold and silver coins thus bore testimony to a ruler's power.⁴⁹

Second, the Ottomans needed some form of money in order to collect taxes and make payments to the soldiers, bureaucrats, and others. As argued earlier, this motive, too, had a lineage in the Mediterranean basin going back to Antiquity. It would be a narrow interpretation, however, to view the Ottoman approach to monetary affairs solely in terms of these two motives. The Ottomans were also aware that there existed a strong link between the availability of money and the prosperity of trade and the economy. From its earliest days, the Ottoman state was located on long-distance trade routes and trade always involved money of one kind or another. In addition, while the degree of monetization certainly varied over time and space, the use of money was not limited to narrow segments of the urban population. The use of money increased substantially during the sixteenth century, both because of the increased availability of specie and the growing economic linkages between the urban and rural areas. Large sectors of the rural population came to use coinage, especially the small denominations of the silver *akçe* and the copper *mangır*, through their participation in markets and because of state taxation of a wide range of

⁴⁹ Cemal Kafadar, "When Coins Turned into Drops of Dew and Bankers Became Robbers of Shadows; the Boundaries of Ottoman Economic Imagination at the end of the Sixteenth Century," PhD thesis, McGill University (1986), 86; also Cornell H. Fleischer, *Bureaucrat and Intellectual in the Ottoman Empire, the Historian Ali (1541–1600)* (Princeton, NJ: Princeton University Press, 1986), 279.

economic activities. Moreover, small scale but intensive networks of credit relations developed in and around the urban centers during the same period. Peasants as well as urban residents took part in these monetary transactions. On the face of this evidence, there is no doubt that a considerable part of the Ottoman economy as well as state finances depended on money and monetary stability, and the Ottoman administrators were well aware of that.⁵⁰

Just as Ottoman economic policies reflected the priorities and interests of a central bureaucracy, Ottoman monetary practices were closely linked to the same priorities and interests. Ottoman monetary practices were also characterized by comprehensive interventionism during the heyday of Ottoman centralization in the second half of the fifteenth century. However, the limitations of the central government were even more apparent in the case of money markets. In comparison to goods markets and long-distance trade, it was more difficult for governments to control physical supplies of specie or coinage and regulate prices, that is exchange rates and interest rates.⁵¹ The Ottoman administrators thus came to recognize that participants in the money markets, merchants, money-changers, and financiers were able to evade state rules and regulations more easily than those in the commodity markets. Observing the mixed success of government actions, they learned that interventionism in money markets did not always produce the desired results. There is a good deal of evidence which will be examined in the remainder of this volume indicating that government interventions in money markets also became more selective after the fifteenth century. On the whole, Ottoman monetary practices in later periods were in fact characterized by a remarkable degree of pragmatism and flexibility.

Even with pragmatism and flexibility, however, to establish and maintain a stable monetary system in a large empire located at the crossroads of intercontinental trade was a complicated task. The difficulties faced by the Ottomans in this respect require some emphasis. First, the difficulties of establishing and maintaining a stable monetary system during the Medieval and Early Modern periods, common to all states, need to be considered. Since demand for money was met mostly by coinage minted from gold, silver, and other metals, a strong linkage existed between the availability of these metals and the supply of money. If a region experienced a trade deficit, specie flowed out and the money supply was affected adversely. Similarly, hoarding of precious metals and coinage due to a decline in

⁵⁰ The availability and use of coinage reached a peak in the sixteenth century. In comparison, shortages of specie and coinage were frequent occurrences during both the fifteenth and seventeenth centuries. See chapters 3, 4, 7 and 9.

⁵¹ Spufford, *Money and its Use*; Hennequin, "Points de vue sur l'Histoire Monétaire", 3–44 and "Nouveaux Aperçus sur l'Histoire Monétaire", 179–215; and Goitein, *A Mediterranean Society*, 209–72.

confidence or in response to the instability of the currency would lead to a decrease in the money supply. Most of the Medieval and Early Modern states were in fact subject to recurring shortages of specie which had adverse consequences on the economy.⁵² The Ottomans struggled with the same problems.

The Ottomans also faced a number of other challenges arising from the size of the Empire and its location. Despite the emphasis of some historians on the extent of government control, the Ottoman economy was not a closed or well-controlled entity with a single division of labor. From the Balkans to Egypt, from the Caucases to the Maghrib, different regions of the Empire were drawn into commercial relations with distant parts of the Old World. The Balkans, for example, engaged in trade with central and eastern Europe and across the Black Sea. Egypt, on the other hand, was linked to the Indian Ocean and the trade of South and Southeast Asia. These far reaching commercial linkages made it very difficult to control the movements of specie and maintain monetary stability.

In addition, the Ottoman Empire happened to be located on major trade routes between Asia and Europe. Ever since the discoveries of major silver deposits in Bohemia and Hungary in the twelfth century, Europe tended to import more commodities from Asia such as spices, silk, textiles, and other goods while Asia demanded specie in return.⁵³ The arrival of large amounts of gold and silver from the Americas did not initiate these movements but certainly added to their volume. As the Ottomans began to establish control over the major trading routes in the eastern Mediterranean in the second half of the fifteenth century, they welcomed the arrival of specie from the west. Yet, they could not prevent the outflow of specie to the east arising from the trade deficits in that direction. Fluctuations in these commodity and specie flows brought increasing pressure on the Ottoman monetary system.⁵⁴

More generally, of course, the monetary difficulties faced by the Ottomans were also a reflection of the underlying economic and fiscal realities. With the growing economic strength and commercial presence of the European states, on the one hand, and declining Ottoman power on the other, it became increasingly difficult after the sixteenth century to control the large

⁵² See, for example, Spufford, *Money and its Use*; Hennequin, "Points de vue sur l'Histoire Monétaire", 3–44 and "Nouveaux Aperçus sur l'Histoire Monétaire", 179–215.

⁵³ Spufford, *Money and its Use*.

⁵⁴ In this respect, there are sharp differences between the Ottomans and their Muslim contemporaries, the Mughals of India. While the Ottomans struggled with trade deficits and resulting instabilities of their monetary system, the Mughals enjoyed large trade surpluses, inflows of specie and a flourishing monetary system during the sixteenth and seventeenth centuries. The contrasts between Ottoman flexibility in monetary affairs and willingness to allow the circulation of foreign coinage and the Mughal insistence on monetary unity and the prohibition of foreign coinage can not be adequately understood without reference to the respective trade balances. For the Mughal monetary system, see Richards (ed.), *Imperial Monetary System*.

fluctuations in commodity and specie flows and maintain a stable monetary system. Ottoman difficulties were compounded by the recurrence of fiscal crises which played havoc with money. In the face of these difficulties, the Ottoman governments had mixed success in their attempts to maintain monetary stability, as will be argued later in this volume.

It is thus clear that a monetary history of the Ottoman lands during these six centuries can not treat the large empire in isolation, but as an integral part of the world economy and subject to its vicissitudes. It would be best to think of this empire, especially when dealing with monetary processes, not as a closed and well-controlled unit, but as a porous, sieve-like entity with loosely defined borders.

A periodization

The world economic environment and the monetary arrangements prevailing in different parts of the Empire as well as the nature of the Ottoman entity itself underwent major changes during the six centuries to be examined in this volume. To summarize, the Ottoman state evolved from a small *beylik* located on the trade routes of northwestern Anatolia in the fourteenth century into a large, far-flung empire at the crossroads of intercontinental trade during the sixteenth and seventeenth centuries. The empire also came into contact with global flows of specie during this period. The Ottoman monetary system functioned reasonably well until the last quarter of the sixteenth century. From the 1580s until the 1640s, however, was an unusually turbulent period with frequent debasements and major fluctuations in the value of the currency which eventually led to the cessation of mint activity in the Balkans and Anatolia. The *akçe* was reduced to an invisible unit of account while actual exchanges were often undertaken with European coinage. The Ottoman monetary system did not follow an unbroken path of decline and disintegration after the seventeenth century, however. The central government was able to establish a new and reasonably stable currency during the eighteenth century and strengthen the monetary linkages with the periphery of the Empire. From the middle of the eighteenth century, as the large empire began to shrink in size due to territorial losses and secessionist movements, it was also drawn into the commercial and financial networks originating from western Europe. With the dramatic expansion of trade and capital flows after the 1820s, these trends accelerated. The nineteenth century was also a period of reform in the Ottoman Empire. In monetary affairs, the government first adopted bimetallism and then moved towards the gold standard, along with many other states around the world.

The monetary currents and problems as well as the nature of monetary institutions or arrangements were profoundly different during each of these centuries. For this reason, I will identify in this volume five distinct time

periods and treat the issues of each separately. Even though this periodization has been defined, above all, in terms of the prevailing monetary arrangements, I will show that it also coincides, to a large extent, with the broad trends in economic history during these six centuries.

- I. *1300 to 1477* Silver based and relatively stable currency (akçe) of an emerging state on the trade routes of Anatolia and the Balkans.
- II. *1477 to 1585* Gold, silver, and copper coinage during a period of economic, fiscal, and political strength; the unification of gold coinage, the ultimate symbol of sovereignty, the emergence of different silver currency zones within the Empire; the development of intensive networks of credit in and around urban centers.
- III. *1585 to 1690* Monetary instability arising from fiscal, economic, and political difficulties compounded by the adverse effects of intercontinental movements of specie; the disappearance of the akçe and increasing circulation in the Ottoman markets of foreign coins and their debased versions.
- IV. *1690 to 1844* The establishment of a new silver unit; the strengthening of the monetary linkages between the center and the periphery of the Empire; the relative stability of the new *kuruş* until the 1780s, followed by severe fiscal crises and rapid debasement; the transformation of the traditional moneylenders of Istanbul to a financial bourgeoisie through large-scale lending to the state.
- V. *1844 to 1918* Integration into the world markets in the aftermath of the Industrial Revolution; a new bimetallic system based on the silver *kuruş* and gold *lira*; the abandonment of debasement as a means of creating fiscal revenue and the growth of external borrowing; adoption of “limping” gold standard in the 1880s; the development of commercial banking.

Trade and money at the origins

The best available numismatic evidence indicates that the Ottomans issued the first coin under their own name in 1326 in the northwest corner of Anatolia just as Mongol hegemony over their territories collapsed and Timurtaş, the last of the Ilkhanid governors fled. During the following century and a half, the new state expanded rapidly in both Anatolia and the Balkans. The fact that the Ottomans were favorably located on the trade routes between Asia and Europe contributed not only to their military and political successes but also to the dynamism of their economy and state finances. Equally importantly, their emerging monetary system was influenced by the monetary practices of states and merchants that controlled or operated on these routes.

This chapter will begin by placing the currency and monetary practices of the emerging Ottoman state in the context of east–west trade, payments, and specie flows stretching from southern Europe to West Asia and further to the east. For this purpose, it will adopt a framework that emphasizes the links between commodity flows and trade balances, on the one hand, and the availability of specie and coinage, on the other. It will also pay attention to the supplies from local mines as an alternative source of specie.

Gold and silver; East and West

From the middle of the tenth century until the end of the twelfth century, the Byzantine Empire and the Islamic states in the eastern Mediterranean had relied on gold, billon and base metals for their coinage while they experienced shortages of silver. The Byzantine gold hyperperon and the dinars of the Islamic states had served as the dollars of the Middle Ages around the Mediterranean. In contrast, European states had relied on silver for their coinage during these centuries. Virtually no gold was minted in Europe until the middle of the thirteenth century.¹

¹ R. S. Lopez, “The Dollar of the Middle Ages,” *The Journal of Economic History* 11 (1951), 209–34; C. M. Cipolla, *Money, Prices and Civilization in the Mediterranean World, Fifth to*

By the middle of the thirteenth century, however, a major transformation was underway. Gold returned to Europe and silver coinage began to decline in importance. Florence and Venice were the first to mint their well-known florins and ducats. By the middle of the fourteenth century Europe had been transformed from an area that primarily used silver for currency to one that primarily used gold. At the same time, gold began to disappear from the Eastern Mediterranean and that region began to rely on increasingly abundant quantities of silver for its coinage. The Byzantine hyperperon was steadily debased in the thirteenth century and disappeared altogether in the middle of the fourteenth century although the term continued to be used for Byzantine silver coinage. In the first half of the thirteenth century, silver became increasingly important in the Nicean empire, Byzantine Trabizond, Georgia, Christian Kingdoms of Lesser Armenia and Ayyubids of Syria. In the second half of the century, silver currencies flourished in Mongol Iran and Mamluk Egypt. Although the silver originating in Europe did not reach Constantinople in considerable quantities until the late thirteenth century, it became available in Anatolia much earlier. The Selcuk rulers began to mint silver coinage of their own at their capital Konya and Kayseri in the closing years of the twelfth century.²

While the shift itself is not in doubt, there are competing explanations for it. Andrew Watson who originally drew attention to the phenomenon argued that it was the differences in the gold:silver price ratios between the eastern and western ends of the Mediterranean and the reversal of these differences over time that led to the shift. Merchants then carried gold and silver in the opposite directions taking advantage of the price differentials. This perspective thus pointed to simple arbitrage as the basic mechanism for the accumulation of gold and silver in the different regions. At the same time, however, it failed to explain why the differences in the ratios arose in the first place.³

Harry Miskimin and Peter Spufford, while not contesting the shift itself, have rejected the importance of arbitrage and attempted to provide a number of explanations for the origins of the price differentials and the mechanisms that they may trigger. They emphasized the importance of differential mining activity in the two regions as one important determinant of the gold:silver ratios. In this perspective, once the gold:silver ratios are established, the merchants should be expected to pay the trade balance in the specie that is more advantageous for them. Patterns in long-distance

Seventeenth Century (Princeton University Press, 1956), pp. 3–26; and A. S. Ehrenkreutz, “Studies in the Monetary History of the Near East in the Middle Ages,” *Journal of the Economic and Social History of the Orient* 2 (1959), 128–61.

² A. M. Watson, “Back to Gold – and Silver,” *The Economic History Review* 20 (1967), 1–21. More recently, Stephen Album has dated the disappearance of fine silver coins in the Near East and North Africa from about 960 to about 1200 AD; see S. Album, *A Checklist of Islamic Coins*, second edition (Santa Rosa, CA: S. Album, 1998), 10.

³ Watson, “Back to Gold,” 21–34.

trade and how the trade balances were paid thus emerge as the key mechanisms in determining where stocks of gold and silver would end up.

Miskimin also underlined that given the imprecise nature of medieval minting technology and the wide variations in the specie content of the coins minted under the same standard, pure arbitrage, that is the transportation of gold and silver coins in opposite directions was unlikely to be effective.⁴ Peter Spufford, in his Eurocentric perspective, linked the European commercial revolution of the thirteenth century ultimately to the discoveries of silver in Central Europe. He argued that as more specie became available in Europe, there occurred a general expansion of North Italian trade with Constantinople, Syria, and Egypt beginning as early as the middle of the twelfth century. Most of this trade was unbalanced, however, and the Europeans paid the difference with silver.⁵

In the thirteenth century, the merchants of the eastern Mediterranean and the Europeans carried both the silk and spices of Asia as well as the locally produced commodities of the Near East to Europe in return for some European goods and considerable quantities of silver. There existed three principal routes through the Eastern Mediterranean and the Near East which linked Europe with the distant locations in Asia. The northern route went through Constantinople to the Black Sea Coast and then across the land mass of Central Asia. The central routes connected the Mediterranean with the Persian Gulf and the Indian Ocean via Anatolia and Iran or Syria and Bagdad. Finally, the southern route linked the Alexandria–Cairo–Red Sea complex with the Arabian Sea and the Indian Ocean. The Mamluk state in Egypt which was established in the 1250s controlled the southern route to Asia through the Red Sea and the Indian Ocean.⁶

After the Mongols took control of the Black Sea region and much of Anatolia as well as the routes across Asia, however, the trade routes shifted

⁴ H. A. Miskimin, "The Enforcement of Gresham's Law," *Credito, banche e investimenti, secoli XIII–XX: Atti della quarta Settimana di studio (Prato, 1972)*, Istituto Internazionale di Storia Economica "F. Datini" (Florence: Felice le Monnier, 1985), 147–61, reprinted in H. A. Miskimin, *Cash, Credit and Crisis in Europe, 1300–1600* (London: Variorum Reprints, 1989); also H. A. Miskimin, "Money and Money Movements in France and England at the end of the Middle Ages," in J. F. Richards (ed.), *Precious Metals in the Later Medieval and Early Modern Worlds* (Durham, NC: Carolina Academic Press, 1983), 79–96.

⁵ P. Spufford, *Money and its Use in Medieval Europe* (Cambridge University Press, 1988), 109–62. Eliyahu Ashtor estimates that in the fifteenth century, approximately 40 percent of the goods coming from the east were paid by western goods and 60 percent by precious metals. E. Ashtor, *Les Metaux Precieux et la Balance des Payements du Proche-Orient à la Basse Epoque* (Paris: S.E.V.P.E.N., 1971).

⁶ J. L. Abu-Lughod, *Before European Hegemony, the World System AD 1250–1350* (Oxford University Press, 1989). Ashtor, *Les Metaux Precieux*; and E. Ashtor, *Levant Trade in the Later Middle Ages* (Princeton University Press, 1983). It is worth mentioning that the persistence of the trade imbalances in the east–west trade made it very difficult for bills of exchange to develop in the Near Eastern trade with Europe during these centuries since bills of exchange typically flourish under balanced trading conditions. E. Ashtor "Banking instruments between the Muslim East and the Christian West," *Journal of European Economic History* 1 (1972), 553–73.

from Egypt and the Indian Ocean, to the Black Sea region. The northern trans-Asian route with its western termini on the northern shores of the Black Sea, at Caffa and Tana, then emerged as the principal conduit of the European trade with Asia. From the last quarter of the thirteenth century, European merchants carried silver, largely in the form of ingots, through Constantinople into the Black Sea and then into the steppes of western Asia as payments for the goods arriving from the east. Much of this remained in the form of ingots but a certain amount was minted by the Mongol Khans of the Golden Horde and the other Mongol states, most importantly by the Ilkhanids, into dirhams. By the early part of the fourteenth century these dirhams, called aspers by the European merchants, had become common currency all around the Black Sea including Trebizond from where they were carried south and eastward to the territories controlled by the Seljuks of Anatolia and the Ilkhanids of Persia.⁷ Anatolia along with the northern coast of the Black Sea and Persia was thus pulled into the Mongol sphere of trade.⁸

Trade was not the only mechanism, however, for the specie flows from Europe to the Near East. Religious and political factors also played a part in the movements of bullion. In the short term, these could have much greater effects on the flow of specie than trade balances, although in the long run, trade was always far more important. On the religious front, the workings of the papacy, pilgrimages, and Latin Christian presence in the eastern Mediterranean were the principal causes of the specie flows to the

⁷ Spufford, *Money and its Use*, 146–47; and Abu-Lughod, *Before European Hegemony*, 153–84. For the Mongolian currency on the western coast of the Black Sea during this period, see D. M. Metcalf, *Coinage in South-Eastern Europe 820–1396* (London: Royal Numismatic Society, Special Publication No. 11, 1979), 280–84.

⁸ The most active period for the northern route coincided with the decline of the southern route. After the Mamluks captured Acre in 1291, the popes issued a series of bulls forbidding trade with the Moslems. These efforts eventually led to the decline of Italian trade with Egypt (E. Ashtor, *Levant Trade*, 3–82). After the dissolution of the Mongol Empire from the middle of the fourteenth century, the southern route once again became the most important channel connecting the Mediterranean to the Indian Ocean, maintaining its prominence until the end of the sixteenth century. Abu-Lughod, *Before European Hegemony*, 212–47; also R. S. Lopez, H. Miskimin, and A. Udovitch, “England to Egypt, 1350–1500: Long-Term Trends and Long-Distance Trade,” in Michael A. Cook (ed.), *Studies in the Economic History of the Middle East* (London: Oxford University Press, 1970), 115–28. The monetary history of Egypt in the fourteenth and fifteenth centuries has been the subject of a number of important studies. See P. Balog, “History of the Dirham in Egypt from the Fatimid Conquest until the Collapse of the Mamluk Empire,” *Revue Numismatique* VIe serie, 3 (1961), 109–46; P. Balog, *The Coinage of the Mamluk Sultans of Egypt and Syria* (New York: American Numismatics Society, Numismatic Studies No. 12, 1964); J. L. Bacharach, “Circassian Monetary Policy: Silver,” *The Numismatic Chronicle*, seventh series, 11 (1971), 267–81. J. L. Bacharach, “The dinar versus the ducat,” *International Journal of Middle Eastern Studies* 4 (1973), 77–96. E. Ashtor, “Etudes sur le Système Monétaire des Mamlouks Circassiens,” *Israel Oriental Studies* 6 (1976), 264–87; B. Shoshan, “From Silver to Copper: Monetary Changes in Fifteenth-Century Egypt,” *Studia Islamica* 56 (1982), 97–116; B. Shoshan, “Exchange Rate Policies in Fifteenth-Century Egypt,” *Journal of the Economic and Social History of the Orient* 39 (1986), 28–51.

east. War and the preparation for war involved much larger payments than any religious activity except the most expensive of crusades. Most of the spectacularly large payments associated with war and the preparation for war, were in fact made in the same direction as commercial payments, from west to east.⁹

When John the Fearless, while still the count of Nevers, was taken prisoner by the Ottomans at the battle of Nicopolis (Niğbolu) in 1396, the Ottomans held him for ransom and promised to release him only upon the payment of 200,000 florins, a huge sum. To transfer this amount from Europe to Anatolia was a major operation and involved the activities of leading European bankers. It also caused a significant disturbance in the European money markets.¹⁰

If the differences between the gold:silver ratios of the two regions led the merchants to decide how the trade balances would be settled, one should expect gold to replace silver as the means of payment whenever the regional differentials in the gold:silver ratios were reversed. In fact, there is evidence that the dividing line between the era of silver and the era of gold in the Aegean fell around 1350. Until the 1340s, most of the trade deficits had been paid in silver, and most recently in the form of *gigliatti* which were quite popular in western Anatolia. By the 1350s, however, silver had vanished from the area which had a negative balance of trade with the lands further east. The local mints, including those under the control of Genoa as well as the Turkish beyliks, Saruhan, Menteşe and Aydın took up the minting of imitations of gold Venetian ducats. It is thus reasonable to date the establishment of the ducat in western Anatolia from the middle of the fourteenth century.¹¹

Spufford's insistence on European trade deficits and specie flows should not lead us to ignore alternative explanations of the rise of silver in the eastern Mediterranean, however. There may have been other sources of that silver. One possibility is the arrival of silver into the region from Central Asia. There is evidence that Iraq and Persia were being supplied by the reopened silver mines of Turkestan during this period. Another possibility is the revival of silver mining within the Near East itself. For example, numismatic evidence makes clear that after eastern Anatolia fell under the

⁹ Spufford, *Money and its Use*, 157–62.

¹⁰ R. de Roover, *The Bruges Money Market around 1400*, with a statistical supplement by Hyman Sardy (Brussels: Paleis der Academiën, 1968), 43–44.

¹¹ P. Spufford, *Handbook of Medieval Exchange* (London: Royal Historical Society, 1986), 283–86. The arrival of gold in the area can also be followed from the emergence of exchange rates involving gold coinage (286–313). For the return of gold coinage to Egypt, see Bacharach, "The dinar," 77–96; and J. L. Bacharach, "Monetary Movements in Medieval Egypt, 1171–1517," in J. F. Richards (ed.), *Precious Metals in the Later Medieval and Early Modern Worlds* (Durham, NC: Carolina Academic Press, 1983), 159–81. The Ottomans did not mint gold coins of their own until the last quarter of the fifteenth century; see chapter 4, pp. 60–62.

control of the Mongols, mints were established at or near silver mines in that region and these contributed to the large quantities of high quality silver coinage produced by the Ilkhanids beginning in the second half of the thirteenth century.¹² Hopefully, future research will shed more light on these alternative explanations.

Byzantine Empire and the Balkans

In order to better understand the regional influences on Ottoman monetary practices in this early era, it is necessary to examine the political, economic, and monetary conditions in the Balkans and Anatolia. We begin with the Byzantine and Balkan states in view of the close contact between them and the Ottomans during the fourteenth and fifteenth centuries.

The economic and fiscal base of the Byzantine state was dramatically weakened during the twelfth and thirteenth centuries by the territorial contraction that resulted from the arrival of Turkmen tribes into Anatolia and the Mongol invasions as well as the increasing frequency of wars these entailed. For these and other reasons, the Byzantine empire was not a strong economic or commercial player during the last centuries of its existence. After Constantinople was recovered from the Latins in the middle of the thirteenth century, the Genoese were given free access to all Byzantine ports. The Genoese colony at Pera soon acquired a near monopoly of the prosperous Black Sea trade that developed after the arrival of the Mongols. The Venetians were also able to establish a footing, by a series of treaties with Constantinople in the early part of the fourteenth century.¹³

The monetary resources or reserves of the Empire were still surprisingly large, as witnessed by the occasional tribute paid to the Ottomans.¹⁴ Nonetheless, the output of the silver mines it continued to control was no match for the outflow of gold and the Empire's stocks of currency were eventually depleted. Consequently, the circulation of the silver Byzantine coinage, the hyperperon, trachea, basilicon, and stavraton remained limited to the environs of Constantinople, the Marmara basin, and to a lesser extent, Salonica. After the middle of the fourteenth century, the Byzantine coinage rarely circulated beyond the city walls of Constantinople. It was no match for the currencies of Genoa, Venice, and Naples which circulated and was imitated widely along the Aegean and western Anatolian coast.¹⁵

¹² See pp. 28–30 below.

¹³ Metcalf, *Coinage*, 276–80, R. S. Lopez, "The Trade of Medieval Europe: the South," in *Cambridge Economic History of Europe*, vol. II, 1952, 257–354; S. Runciman "Byzantine Trade and Industry," in *Cambridge Economic History of Europe*, vol. II, 1952, 86–118; and G. I. Bratianu, *Recherches sur le Commerce Genoïse dans la Mer Noire au XIIIe Siècle* (Paris: Librairie Orientaliste Paul Geuthner, 1929).

¹⁴ O. Iliescu, "Le Montant du Tribut Payé par Byzance à l'Empire Ottoman en 1379 et 1424," *Revue des Etudes Sudest Européennes* 9 (1971), 427–32.

¹⁵ Metcalf, *Coinage*, 333–35. For late Byzantine coinage also see P. Grierson, *Byzantine Coins*

In the Balkan peninsula, the fourteenth century was a period of economic stagnation and persistent financial difficulties compounded by the Black Death and the European recession. The Byzantine fiscal crisis added to these difficulties which are reflected in the Balkan coinage of the period. In many parts of the peninsula, the second and third quarters of the century witnessed an accelerated decline in the metal contents of the silver coinage. The absence of gold currency and large silver coinage in the region paralleled trends that prevailed in many parts of Europe and the Near East in the fourteenth century. The apparent absence of coins of low intrinsic value may perhaps be taken as an indication that the monetary sector of the economy did not extend very far until the second half of the century. The Venetians struck considerable volume of silver coinage in Crete and its other Aegean possessions. The Venetian silver grosso remained the most important and influential coin in the coastal regions of the southern Balkans until the middle of the fourteenth century. The local rulers of Bosnia, Serbia, Bulgaria and Wallachia often opposed foreign coinage and insisted on the circulation of their own coinage, however.¹⁶

One development with important implications for the Ottoman period was the rise of silver mining in Macedonia, Serbia, and Bosnia during the late thirteenth and early fourteenth centuries with the arrival of Saxons and possibly other colonists from Bohemia and Hungary who brought more developed techniques of mining. The output of the mines increased substantially around the turn of the fifteenth century and they turned into a major source of revenue for the Balkan rulers. For example, Bertrand de la Broquiere, a Burgundian knight who traveled through Serbia in 1433 before the Ottomans captured the mines, estimated that the mines of Novo Brdo yielded an income of 200,000 ducats per year. It has also been estimated that the annual output of the silver mines of Serbia and Bosnia was not less than ten tons in the first half of the fifteenth century. Apart from very small quantities that went overland to Constantinople, almost all of this silver was shipped out of Dubrovnik. Most of it went to Venice but some elsewhere in Italy and Sicily.¹⁷

(London: Methuen & Co. Ltd., 1982), 277–318 and M. F. Hendy, *Studies in the Byzantine Monetary Economy c. 300–1450* (Cambridge University Press, 1985), 439–47 and 527–51.

¹⁶ Metcalf, *Coinage*, 284–303. For the coinage of Latin states in the Aegean during this period, see P. Lock, *The Franks in the Aegean, 1204–1500* (Harlow: Longman, 1995), pp. 262–64.

¹⁷ S. Cirkovic, "The Production of Gold, Silver and Copper in the Central Parts of the Balkans from the Thirteenth to the Sixteenth Century," in H. Kellenbenz (ed.), *Precious Metals in the Age of Expansion* (Stuttgart: Klett-Cotta, 1981), 42–43; D. Kovacevic, "Dans le Serbie et la Bosnie médiévales: les Mines d'Or et d'Argent," *Annales E.S.C.* 15 (1960), 248–58 and Spufford, *Money and its Use*, 349–56; also S. Vryonis Jr., "The Question of Byzantine Mines," *Speculum* 37 (1962), 11–16. For Saxons in central European mining in the late medieval period, see J. U. Nef, "Mining and Metallurgy in Medieval Civilisation," in M. Postan and E. E. Rich (eds), *The Cambridge Economic History of Europe* vol. II (Cambridge University Press: 1952), 441–73.

Anatolia

In many of the earlier accounts, especially those connected to the Ottoman historiography, the early Ottoman coinage had been linked to the Seljuks of Anatolia. However, recent studies have revealed the continued influence of the Ilkhanids even after the Ottomans and the other beyliks obtained their independence from the Mongols. A review and reevaluation of this recent literature will be very helpful for understanding not only the origins of Ottoman coinage but also Ottoman monetary practices in the following centuries.

Anatolia was no exception to the general spread of silver coinage in the Near East during the thirteenth century. Detailed numismatic evidence indicates that both the silver producing mints and silver coinage proliferated especially in central and eastern Anatolia from the middle of the thirteenth century, towards the end of the Seljuk era. The numbers of Seljuk mints issuing silver dirhams in any given year increased from three in the 1240s to nine after 1255 and ranged from a low of six to a high of fifteen per year until the end of the century. There is no doubt that the volume of silver coin production also increased during this period.¹⁸

Although they continued to issue coinage until the first decade of the fourteenth century, the Seljuks of Anatolia were unable to withstand the Mongol pressure from the east. Anatolia began to be ruled by the Ilkhanids, the Mongols of Persia, during the last two decades of the thirteenth century. The Turkmen principalities (*beyliks*) including the Ottomans began to pay tribute directly to the Ilkhanid governors appointed from Persia. The Ilkhanids were unable to establish long-lasting political structures in the more distant western and central Anatolia, however. As a result, new waves of Turkmen tribes continued to arrive in this region during the second half of the thirteenth century. The new principalities established by the Turkmen settlers had a good deal of autonomy while they recognized the overlordship of the Seljuks and later the Ilkhanids.¹⁹

After the transition of power to the Mongols, both the number of mints and their output expanded rapidly, beginning in the 1280s and lasting until the 1330s. At the turn of the fourteenth century, more than forty mints in Anatolia were producing coins in the name of the Ilkhanid ruler although not all of these mints operated on a regular basis. The mints in Anatolia

¹⁸ R. P. Lindner, "A Silver Age in Seljuk Anatolia," in Turkish Numismatic Society, *A Festschrift Presented to İbrahim Artuk on the Occasion of the 20th Anniversary of the Turkish Numismatic Society* (Istanbul: Turkish Numismatic Society, 1988), 267–74.

¹⁹ H. İnalcık, "The Question of the Emergence of the Ottoman State," *International Journal of Turkish Studies*, 2 (1980), 72–73; E. A. Zachariadou, *Trade and Crusade, Venetian Crete and the Emirates of Menteshe and Aydın (1300–1415)* (Venice: Library of the Hellenic Institute of Byzantine and Post-Byzantine Studies, 1983) and E. A. Zachariadou, "S'Enrichir en Asie Mineure au XIV^e Siècle," in V. Kravari, J. Lefort and, C. Morrison (eds.), *Hommes et Richesses dans l'Empire Byzantin* (Paris: Editions P. Lethielleux, 1991), 216–17.

were actually part of a larger network of as many as one hundred Ilkhanid mints in the area that centered in Tebriz and stretched from Horasan in the east to the Persian Gulf and Iraq in the south.²⁰

The Ilkhanid success in monetary activity was directly related to the revival of the northern and central routes through the Near East as the principal conduit for east–west trade under *pax mongolica*. The Ilkhanids were able to tax the trade and also ensure that the merchants would convert their precious metals and foreign coinage by bringing them to the mints where they were assessed mint charges. It is not surprising, therefore, that the peak in Ilkhanid mint activity coincided with the peak in volume along the trade routes as described by the Italian merchant Pegelotti. The Ilkhanids issued large volumes of gold miskals, silver dinars, and the smaller silver dirhams although their mints in Anatolia produced only silver coinage. With high volume and high quality, Ilkhanid coinage is still considered one of the most exceptional of all Islamic states. Through their Mongol connections, the Ilkhanids also introduced in Iran paper money which was being used widely in China at the time, but this attempt was not successful.²¹

In the heyday of the Mongol empire, the major east–west trade route in Anatolia ran from Tabriz in Iran to Konya, the old Rum Seljuk capital and then to southern Anatolian ports such as Alaiyye. When the Ilkhanids lost Konya to the Karamanids, a new route became important, running through Erzincan, Sivas, Ankara, and thence west. After the Ottomans conquered Bursa, it quickly became the western terminus of this route. Another major route ran from Kaffa in the Crimea to the port of Sinop and west. The primary commodities carried by these routes were low volume, high value commodities, most importantly silks and spices.²² The Mongol peace thus attracted to Anatolia a high volume of transit trade primarily at the eastern and to a lesser extent at the western end of the peninsula.²³

²⁰ Lindner, “A Silver Age,” 271–3; R. P. Lindner, “Hordes and Hoards in late Saljuq Anatolia,” in *The Art of the Saljuks* (Costa Mesa, CA: Mazda Publishers, 1994), 280–81; J. M. Smith, Jr., “The Silver Currency of Mongol Iran,” *Journal of the Economic and Social History of the Orient* 12 (1969), 16–41; S. S. Blair, “The Coins of the later Ilkhanids: Mint Organization, Regionalization and Urbanism,” *American Numismatic Society Museum Notes* 27 (1982), 211–30; A. P. Martinez, “Regional Mint Outputs and the Dynamics of Bullion Flows through the Il-xanate,” *Journal of Turkish Studies* 8 (1984), 121–73; and A. P. Martinez, “Bullionistic Imperialism: the Ilkhanid Mint’s Exploitation of the Rum-Saljuqid Currency, 654–695H/1256–1296 AD,” *Archivum Ottomanicum* 13 (1993–94), 169–276.

²¹ J. M. Smith Jr. and F. Plunkett, “Gold Money in Mongol Iran,” *Journal of the Economic and Social History of the Orient* 11 (1968), 275–97; Martinez, “Regional Mint Outputs,” 121–126; B. P. Francesco, *La Pratica Della Mercatura*, A. Evans (ed.) (Cambridge, MA: Harvard University Press, 1936), 28–43. For the activities of Italian merchants in Anatolia during the Seljuk and Ilkhanid periods, see Ş. Turan, *Türkiye-İtalya İlişkileri I: Selçuklular’dan Bizans’ın Sona Erişine Kadar* (Istanbul: Metis Yayınları, 1990), 85–190.

²² C. Cahen, *Pre-Ottoman Turkey: a Survey of the Material and Spiritual Culture and History, c. 1071–1330* (London: Sidgwick and Jackson, 1968), 320–29.

²³ A. Z. V. Togan, “Moğollar Devrinde Anadolu’nun İktisadi Vaziyeti,” *Türk Hukuk ve İktisat Tarihi Mecmuası* 1 (1931), 1–42; and Cahen, *Pre-Ottoman Turkey*, 320–29.

Trade and taxation of trade was not the only source of Ilkhanid silver, however. The Ilkhanids also obtained control of a number of silver mines in eastern Anatolia in the second half of the thirteenth century such as Maden, Madenşehir and Gümüşhane and their output contributed to the increasing activity of the mints. The existence of Ilkhanid mints and the production of coins at these locations point to the importance of local silver.²⁴

Early Ottoman coinage

The Ottomans and other Turkmen principalities of Anatolia did not mint coins in their rulers' name while they continued to accept the overlordship of the Ilkhanids.²⁵ During this period, the principalities used Ilkhanid and other coinage circulating in Anatolia. They also tried to serve their own needs by minting limited volumes of anonymous silver and copper coinage.²⁶ Finally, with the breakdown of Ilkhanid control over Anatolia and the departure of the last Ilkhanid governor for Mamluk Egypt, the Ottomans began to strike coins in the name of Orhan Bey in 1326 (727 H).²⁷ These earliest coins carried inscriptions such as "the great Sultan, Orhan son of Osman, God perpetuate" or "God, the Compassionate, Orhan son of Osman, God make his victory glorious."²⁸

We should pause to consider why 1326 has not been accepted as the date for the foundation of the Ottoman state. The issuing of coinage has been considered an important symbol of sovereignty in the Mediterranean basin ever since Antiquity. Since Islamic states continued this tradition and regarded *sikke ve hutbe* (coinage and prayer) as the two symbols of sovereignty, it is puzzling that the Ottoman historiography has adopted 1299 as the date for the foundation of the state. 1299 might represent the date at which the Ottomans finally obtained their independence from the

²⁴ Martinez, "Regional Mint Outputs," 122–23. Also Vryonis, "The Question of Byzantine Mines," 7–8.

²⁵ C. Ölçer, *Coinage of the Emirate's (sic) of Aidin* (Istanbul: Yenilik Basımevi, 1985), 6; C. Ölçer, *Karaman Oğulları Beyliği Madeni Paraları* (Istanbul: Yenilik Basımevi, 1982), 17.

²⁶ For example, Rudi Lindner has suggested that a Seljuk coin minted at Söğüt was probably issued by the Ottomans. Lindner, "A Silver Age," 272–74; and Lindner, "Hordes and hoards," 280–81. Similarly, Stephen Album states that it is likely Osman Bey struck some coins imitating the Ilkhanid types but further research is necessary on this question. Album, *Checklist*, 65.

²⁷ Several researchers have attempted to assign various anonymous coins to Osman I (1299–1324) but, as Stephen Album has emphasized recently, none of these attempts is convincing. Album, *Checklist*, 65. For the most prominent of these attempts, see İ. Artuk, "Osmanlı Beyliği'nin Kurucusu Osman Gazi'ye Ait Sikke," in O. Okyar and H. İnalçık (eds.), *Social and Economic History of Turkey (1071–1920)* (Ankara: Meteksan Limited Şirketi, *Papers Presented to the First International Congress on the Social and Economic History of Turkey*, 1980), 27–33.

²⁸ For example, J. Sultan, *Coins of the Ottoman Empire and the Turkish Republic, a Detailed Catalogue of the Jem Sultan Collection* (Thousand Oaks, CA: B and R Publishers, 1977), vol. 1, 7–9.

Seljuk sultan at Konya. Probably, they were forced at the same time, or very soon thereafter, to accept the overlordship of the Ilkhanids. It is thus possible that the Ottoman chroniclers, eager to emphasize their Seljuk lineage but downplay their Mongol ties, chose to emphasize the former but ignore the latter. Numismatic evidence thus suggests that independence did not really occur until 1326.²⁹ (See figures 1, 2, and 3.)

In a detailed numismatic analysis of the typology of the coinage of the Ottoman as well as Isfendiyarid and Eretnid principalities, Philip Remler has shown that although there are some coins of Orhan Bey which are imitations of the coinage of Seljuks of Anatolia, on the whole, the designs of the coinage of these principalities during most of the fourteenth century were interrelated and followed directly from the designs of Ilkhanid coinage. Based on the high quality workmanship of some of the earliest Ottoman coins, Remler speculates that Orhan Bey probably hired a die sinker from one of the older Ilkhanid mints in Anatolia. In his opinion, a group of Ilkhanid-style coinage formed a pool from which the beylik coin types were drawn and redrawn for decades after they achieved independence from the Ilkhanids.³⁰

Philip Remler has also argued that a close relationship existed between the Ottoman, Isfendiyarid, and Eretnid coinages during the fourteenth century which points to the existence of a currency community based on common origin and design of the coins, specifically the rendition of the inscriptions and geometric fields in various forms on both sides. It should be added, however, while the designs were similar, the weights of these silver coins varied considerably from one beylik to another. The Ottomans began to design their own coinage in the 1360s while the Isfendiyarids and the Eretnids continued with the Ilkhanid patterns until the 1380s. More recently, Konstantin Zhukov has also shown the existence of a similar currency community in western Anatolia between the Ottomans and the Karasid and Sarukhan principalities until the Ottoman conquest of the region in 1390. In contrast to the other currency community, the silver and copper coinages of these beyliks which were similar in weight were used interchangeably during this period.³¹ Such close relationships between the

²⁹ See also Lindner, "Hordes and Hoards," pp. 280–81 and C. Kafadar, *Between Two Worlds, the Construction of the Ottoman State* (Berkeley and Los Angeles, CA: University of California Press, 1995), 90–116.

³⁰ P. N. Remler, "Ottoman, Isfendiyarid and Eretnid coinage: a currency community in fourteenth century Anatolia," *American Numismatic Society Museum Notes* 25 (1980), 167–69 and 188; also Blair, "Mint Organization," 211–30; and S. S. Blair, "The Coins of the Later Ilkhanids: a Typological Analysis," *Journal of the Economic and Social History of the Orient* 26 (1983), 295–316. For an early study of the akçes of Orhan Bey, see, C. Aly, "Le Prime Monete e i Primi 'aspri' dell'Impero Ottomano," *Revista Italiana di Numismatica* 34 (1921), 77–93.

³¹ K. Zhukov, "Ottoman, Karasid and Sarukhanid coinages and the problem of currency community in Turkish Western Anatolia ('40s–'80s of the Fourteenth Century)," in E. A.

coinages indicates the existence of close commercial and economic ties in western and central Anatolia.³²

Another important issue in establishing the immediate lineages of the akçe concerns the weight of the coin. While the links to the Ilkhanid coins is clear with respect to design, it is difficult to establish a similar connection with respect to weight. The Ottoman silver akçe which weighed between 1.15 and 1.18 grams were much smaller than the contemporary Mongol dirhams but not small enough to be half-dirhams. At the time the Ottomans issued their first coins, the Mongol dirhams were rapidly declining both in weight and silver content from about 1.85 grams in the 1320s to 1.44 grams in the mid-1330s.³³ It is possible that when the Ottomans and other Turkmen beyliks of western Anatolia began to issue silver coins in the early part of the fourteenth century, they chose weights that were close to those of the silver Byzantine coins still circulating in the region.³⁴

It is thus not easy to establish a connection between the Ottoman akçe and Ilkhanid dirhams in terms of weight. At the same time, however, Halil Sahillioğlu has shown that the Ottomans borrowed the weight unit they used in silver coinage from the Ilkhanids. The dirham used by Ottomans in the minting of silver coinage until the end of the seventeenth century is the dirham of Tebriz used by the Mongols of Persia which weighs 3.072 grams. This unit was lighter by more than 4 percent than the classical Islamic dirham of 3.207 grams. This difference has in fact caused much confusion amongst the numismatists since the nineteenth century who assumed that the Ottomans followed the classical Islamic metrology in silver coinage and thus had a difficult time in expressing the standards of Ottoman akçe available from numismatic collections in terms of dirhams.³⁵

Zachariadou (ed.), *The Ottoman Emirate (1300–1389)* (Rethymnon: Crete University Press, 1993), 237–43.

³² For a detailed inventory of Ilkhanid and beylik coinage, see İ. Artuk and C. Artuk, *İstanbul Arkeoloji Müzeleri, Teşhirdeki İslami Sikkeler Kataloğu* (Istanbul: Milli Eğitim Basımevi, 1974), vol. 1, 433–51.

³³ Smith, "The Silver Currency," 18.

³⁴ This possibility needs to be investigated with additional numismatic research. For similar arguments, compare Robert E. Darley-Doran, "An alternative approach to the study of Ottoman numismatics" in *A Festschrift Presented to Ibrahim Artuk on the Occasion of the 20th Anniversary of the Turkish Numismatic Society* (Istanbul: Turkish Numismatic Society, 1988), 87–90; and S. Vryonis Jr., "Byzantine Legacy and Ottoman Forms," *Dumbarton Oaks Papers* 33–34 (1969–70), 278. In his careful study of Byzantine coinage Philip Grierson presents evidence for the circulation of silver coins weighing a little over 1 gram in the early part of the fourteenth century. Grierson, *Byzantine Coins*, 277–318 and especially p. 381; also Hendy, *Studies*, 536–38. For the weights of the silver coins issued by the Turkmen beyliks of western Anatolia during the fourteenth century, see Artuk and Artuk, *İstanbul Arkeoloji Müzeleri*, 433–451.

³⁵ H. Sahillioğlu, "Kuruluşun XVII. asrın sonlarına kadar Osmanlı para tarihi üzerine bir deneme," Ph.D. thesis (available in the Library of the Faculty of Economics), İstanbul Üniversitesi (1958), 1–6; and H. Sahillioğlu, "The Role of International Monetary and Metal Movements in Ottoman Monetary History," in J. F. Richards (ed.), *Precious Metals in the Later Medieval and Early Modern Worlds* (Durham, NC: Carolina Academic Press,

At least two important conclusions emerge from these findings. First, the connections between the Ilkhanid and the beylik coinage show that Mongol prestige and influence continued in Anatolia and on Ottoman practices in administrative and other areas in sharp contrast to both the narratives of Ottoman chroniclers and much of the present-day historiography.³⁶ Secondly, both the continued influence of Ilkhanid coinage and the persistence of currency communities across Anatolia reaffirm the strength of the trade routes along the east–west axis in Anatolia and their importance for the early Ottomans as well as the other Turkmen beyliks. Soon after obtaining their independence from the Ilkhanids, the Ottomans captured Bursa, the western terminus of the silk trade route in Anatolia. Their proximity to the major transit trade routes along Anatolia was certainly an important factor in the rise and early success of the Ottomans, as Zeki Velidi Togan had argued more than half a century ago.³⁷

In the longer term, however, just as the Mongol peace helped the rise of the northern trade routes across the Near East, the collapse of Mongol control over Iran and Anatolia must have led to the decline of these passages. Claude Cahen has argued, for example, that with the collapse of the Ilkhanids, the trade undertaken by the Italian merchants with Iran and points further to the east stopped completely during the first half of the fourteenth century. This need not mean the total collapse of the trade of western Anatolia, however. It appears likely that after the decline of Mongol rule, there occurred a shift from eastern to western regions of Anatolia. Trade with southern Europe along the Aegean maintained its importance after the Ottomans gained control of the area. Nonetheless, Anatolia and especially its eastern half did not regain the commercial prominence it enjoyed during the era of Mongol control. The decline of

1983), 269–304. He has also suggested that the weight of the Ottoman akçe equalled one fourth of an Ilkhanid mitkals or three-eighths of an Ilkhanid dirham. Sahillioğlu, “Osmanlı para tarihi üzerine bir deneme,” pp. 25–27.

³⁶ The Ilkhanids were not only the carriers of Mongol traditions but also became the heirs of the state traditions of Persia and Islam. For Mongol influence on early Ottomans, see H. İnalcık, “The Question of the Emergence of the Ottoman State,” *International Journal of Turkish Studies* 2 (1980), 75–77. For a more general discussion of the influence of Mongols and the steppe tradition on Ottoman institutions and political traditions, see C. H. Fleischer, *Bureaucrat and Intellectual in the Ottoman Empire, the Historian Ali (1541–1600)* (Princeton University Press, 1986), 273–92.

³⁷ Togan, “Moğollar Devrinde,” 1–42. Mustafa Akdağ had also offered a trade-based perspective for the rise of the Ottomans when he argued for the existence of a Marmara basin economy and sought to explain the success of the Ottomans in terms of their location along routes that linked the Marmara basin to the other regional economies. This thesis never had a chance to gain recognition, however, since it was soon criticized by Halil İnalcık on the grounds of weak evidence and poor reasoning. M. Akdağ, “Osmanlı İmparatorluğu’nun Kuruluş ve İnkişafı Devrinde Türkiye’nin İktisadi Vaziyeti,” (in two parts), *Belleten* 13 (1949), 497–571; and 14 (1950), 319–418; H. İnalcık, “Osmanlı İmparatorluğu’nun Kuruluş ve İnkişafı Devrinde Türkiye’nin İktisadi Vaziyeti Üzerine Bir Tetkik Münasebetiyle,” *Belleten* 15 (1951), 629–90; for a recent review of the debate, see Kafadar, *Between Two Worlds*, 45.

these routes and the growing shortages of specie may thus have accelerated Ottoman expansion towards the rich silver mines located in the Balkans.

Mints and their administration

Until the minting of gold coins in the last quarter of the fifteenth century, Ottoman coinage consisted of the small silver akçe and the copper mangır. The basic unit of account was the akçe or akça, which has the connotation of “white.” Western sources also refer to it as asper which has the same connotation.³⁸ The early akçes were minted in Bursa, Edirne, and in other unspecified locations around the Marmara basin and they circulated together with the coinage of other Turkmen beyliks.³⁹

With territorial expansion in the Balkans and central Anatolia during the fifteenth century, the Ottomans followed the examples of the Seljuks and the Ilkhanids and established a large number of mints at important commercial and urban centers and at, or close to, major mines. During the thirty year reign of Mehmed II (1444 and 1451–81), akçes were struck in at least twelve locations.⁴⁰ In the late fourteenth and early fifteenth centuries, the Ottoman akçes circulated regularly in Byzantine territory and inside Constantinople.

The high numbers of mints underline the Ottoman concern to acquire specie and make coinage available locally at a time when it was difficult, technologically and administratively, to collect all bullion at a few centers and then send minted coinage back to the provinces. The high numbers also suggest that the mints did not all work around the clock. In fact, the activities of the mints varied widely over time and there was substantial excess capacity.

Ordinarily, the output of each mint depended on the amount of specie brought in by private individuals or gathered by the state. As a result, there was a good deal of seasonal fluctuation in mint output. In addition, with each new sultan, the government demanded that old coinage be brought to the mints and changed for those bearing the name of the new sultan, an operation referred to as *tecdid-i sikke*, or renewal of coinage. Volume of mint activity increased sharply during these periods.⁴¹

³⁸ Sahillioğlu, “Kuruluşta XVII. Asrın Sonlarına kadar Osmanlı para tarihi,” 25–27.

³⁹ The known mint locations for the fourteenth century are Bursa, Edirne, and Ayasuluk (Ephesus) on the Aegean coast. A. C. Schaendlinger, *Osmanische Numismatik* (Braunschweig: Klinkhardt & Biermann, 1973), 87–89; Sultan, *Coins of the Ottoman Empire*, 8–23.

⁴⁰ In Anatolia these were, Bursa, Amasya, Ayasuluk, Tire, Konya, Kastamonu, and Canca (Gümüşhane) which was a silver-mining site. The three locations in the Balkans, Serez, Novar (Novo Brdo) and Üsküb (Skopje) were all located at or close to major mining centers. Konstantaniyye and Edirne complete the list. Schaendlinger, *Osmanische Numismatik*, 91–93, M. Erüreten, “Osmanlı Akçeleri Darp Yerleri,” *The Turkish Numismatic Society Bulletin*, 17 (1985), 12–21.

⁴¹ These were not much different from the conversion operations known as *refonte* in Europe.

Despite their large numbers, the mints were controlled and administered closely by the central government under a variety of systems. The larger mints located in the leading urban centers were typically operated by the state and their day-to-day operations were supervised by an employee of the state (*emin*) under a system called *emanet*. The smaller mints were usually operated under the tax-farming (*iltizam*) system. They were auctioned off to the highest bidding individuals or partnerships of individuals (*amil*) for a period of three or six years or occasionally longer in return for regular payments. Occasionally the same tax-farmer (*mültezim*) obtained the rights to more than one mint. In one extreme case during the 1470s, all local mints in Anatolia and the Balkans were being held by the same partnership of *mültezims*. Finally, some mints were operated under a hybrid system called *emanet ber-vech-i iltizam* under which the tax-farmers were also salaried employees of the state.⁴²

In all cases, the government closely supervised the operations. Under the tax-farming system, the *multezim* or *amil* often employed an *emin* to supervise the day-to-day operations of the mint. Another person called *sahib-i ayar* was responsible directly to the government for the technical operations and ensuring that coinage met the legal standards established by the government. The government also supervised the technical and financial activities through the local judge (*kadi*) who periodically examined the books.

The legal standards sent to the mints by the central government specified the numbers of akçes that could be struck from each one hundred dirhams of pure silver. No alloy could be legally added to akçes until the seventeenth century.⁴³ The instructions also specified how much the mints should pay for the bullion they purchased and how much they should charge private individuals who brought their own bullion to the mints and asked for coinage.⁴⁴ (See appendix I.)

Whether these legal standards were actually followed by the local mints depended upon the effectiveness of government control and also on the

⁴² Sahillioğlu, "Osmanlı para tarihi üzerine bir deneme," 241–77; H. Sahillioğlu, "Bir Mültezim Zimem Defterine Göre XV. Yüzyıl sonunda Osmanlı Darphane Mukataaları," *Istanbul Üniversitesi İktisat Fakültesi Mecmuası* 23/1–2 (1962–63), 145–218; and H. İnalcık, "Dar al-Darb," *Encyclopedia of Islam*, Second Edition (Leiden and New York, NY: E. J. Brill), 1961.

⁴³ It is not exactly clear how pure clean silver was but 90 percent or higher would be a reasonable estimate. No systematic examination of the fineness and silver content of akçes has been undertaken to date. For the standards and silver content of the akçe until the end of the fifteenth century, see table 3.1 in chapter 3.

⁴⁴ For full texts of Ottoman laws and regulations concerning the mints prepared during the second half of the fifteenth century, see N. Beldiceanu, *Les Actes des Premiers Sultans Conservés dans les Manuscrits Turcs de la Bibliothèque Nationale à Paris I: Actes de Mehmed II et Bayezid II* (Paris-La Haye: Mouton and Co., 1960), 65–67, 79–85, 155–56; A. Akgündüz, *Osmanlı Kanunnameleri ve Hukuki Tahlilleri* (Istanbul: Fey Vakfı, 1990–94), vol. I, pp. 384–88, 532–37.

availability of silver, not necessarily in that order. There is archival evidence from virtually every period indicating how the central government instructed local kadıs to pursue and punish those local mint operators who did not follow the legal standards. However, the relatively low frequency of instructions sent from the center and the small variations in the weights of available coins indicate that the mints adhered to the legal standards fairly closely until the middle of the sixteenth century. (For further details on these instructions and government regulation of the local mints, see appendix I at the end of the volume.)

The minting technique for all Ottoman coinage, silver, copper, and gold remained simple until the end of the seventeenth century. A blank piece of metal was placed between two dies and the upper die was struck with a hammer so that the two dies left their impressions on both sides of the resulting coin. The making of the dies, the preparation of the blanks, and verification, as well as the process of striking itself required considerable amount of skill.⁴⁵ Under the supervision of the *sahib-i ayar*, the larger mints employed specialized workers, artisans, and masters who were responsible for the many detailed tasks of minting. Their numbers reached hundreds in the Istanbul mint. Similarly, numbers of workers exceeded one hundred in some of the other large mints. In the medium-sized mints numbers of employees were usually counted in dozens. The smaller mints in the provinces often relied on the larger mints for some of the more specialized tasks.⁴⁶

Silver mines

From the earliest times, the government paid a good deal of attention to increasing the availability of specie and coinage in Ottoman lands. One important source of specie, of course, were the mines themselves. The silver mines in Anatolia some of which had been active since Byzantine times were located in the eastern half of the peninsula and Ottoman expansion in that direction was blocked by other Turkmen principalities until late in the fifteenth century. In contrast, the Ottomans were able to move quickly into the Balkans and the existence of rich silver mines accelerated territorial expansion in that direction.

⁴⁵ H. Sahilliođlu, "The introduction of machinery in the Ottoman mint," E. İhsanođlu (ed.), *Transfer of Modern Science and Technology to the Muslim World* (Istanbul: IRCICA, Research Centre for Islamic History, Art and Culture, 1992), 261–63; also P. Grierson, *Numismatics* (Oxford University Press, 1975), 100–11; F. C. Lane and R. C. Mueller, *Money and Banking in Medieval and Renaissance Venice*, Vol. I: *Coins and Moneys of Account* (Baltimore, MD: Johns Hopkins University Press, 1985), 218–33; C. E. Chalis (ed.), *A New History of the Royal Mint* (Cambridge University Press, 1992), 159–63.

⁴⁶ The central government occasionally ordered master artisans to move from one mint to another depending upon the need. For examples of orders to the kadıs of towns with mints in the Balkans to send their masters to the mint in Istanbul, see BOA, MHM. vol. LXII, 571/253 and vol. LXIV, 233/79 dated 996 H. (1588).

From the 1390s through the 1460s the Ottomans captured, lost and recaptured the leading silver-mining sites in Macedonia, Serbia, and Bosnia. The dates at which the first akçe were issued in these sites can be followed from the coins themselves: Serez in 816 H/1413, Üsküb/Skopje in 825 H/1422 and Novo Brdo (Novar on Ottoman coins) in 834 H/1430. Even though Kratova, Sidrekapsi, and Srebrenica were also captured by the 1460s, silver and gold coins were not issued at these sites until late in the fifteenth (Kratova) and early sixteenth centuries.⁴⁷ The government also took over smaller mines where silver was obtained but akçe were not produced, such as Zaplanina, Plana, Rudnik, and others.⁴⁸

The government made every effort to increase the output of these mines in order to meet the growing needs for specie. After converting them into state property, the government relied on the tax-farming system to operate the mines. In addition to Muslims, Greek financiers from Macedonia, Serez, and Istanbul were active in the tax-farming of many of these centers during the fifteenth and sixteenth centuries.⁴⁹ Ottoman laws and regulations regarding the operation of these mines, most of which were issued during the second half of the fifteenth century, provide very detailed information about the operations and working conditions in these sites. The Ottomans did not change the production methods or technology in these mines. They respected many of the existing rules and regulations as they did in other matters in the territories they conquered elsewhere. In fact, the regulations that were codified and issued were mostly a translation of the pre-Ottoman regulations in which the original Saxon terminology was preserved. (See appendix I.)⁵⁰

Some of the smaller mines were soon exhausted but many new ones were opened although it is often difficult to determine their locations from the archival documents. Sidrekapsi in Macedonia became by far the most productive of the Balkan mines during the first half of the sixteenth century, employing as many as 6,000 miners according to one European observer. Its total output has been estimated at about six tons per year during this period. Novo Brdo was second with output at less than half that of Sidrekapsi. The total silver production of the Balkan peninsula during the

⁴⁷ Schaendlinger, *Osmanische Numismatik*, 88–100.

⁴⁸ R. Murphey, "Silver Production in Rumelia according to an Official Ottoman Report circa 1600," *Südost-Forschungen* 33 (1980), 75–104; see also the detailed map of the Balkan mines in H. İnalçık and D. Quataert (eds.), *An Economic and Social History of the Ottoman Empire, 1300–1914* (Cambridge University Press, 1994), 1.

⁴⁹ H. İnalçık, "The Ottoman State: Economy and Society, 1300–1600," in İnalçık and Quataert (eds.), *Economic and Social History*, 209–11.

⁵⁰ For full texts of the laws and regulations that applied to the operations of the gold and silver mines, see N. Beldiceanu, *Les Actes des Premiers Sultans Conservés dans les Manuscrits Turcs de la Bibliothèque Nationale à Paris*, II: *Reglements Miniers, 1390–1512* (Paris-La Haye: Mouton and Co, 1964); and Beldiceanu, *Les Actes des Premiers Sultans I (1960)*, 68–77; Akgündüz, *Osmanlı Kanunnameleri*, 480–568 passim; R. Anhegger and H. İnalçık, *Kanunname-i Sultani-ber Muceb-i Örf-i Osmani* (Ankara, 1956).

first half of the sixteenth century has been estimated by Sima Cirkovic at twenty-six to twenty-seven tons per year.⁵¹ In a recent study based on tax-farming and related records of the silver mines in Serbia, northern Bulgaria, Macedonia, Thessaly, and Thrace, Rhodes Murphey has estimated the total annual output of the Balkan silver mines around the year 1600 at fifty tons.⁵² In contrast, the pre-Ottoman production of the silver mines at Serbia and Bosnia had been about ten tons per year in the early fifteenth century.⁵³ These estimates indicate that there occurred a substantial rise in silver output during the fifteenth and sixteenth centuries. They also show that the trajectories of European and Ottoman silver mines sharply diverged during the sixteenth century. While the output of the European mines began to decline in the first half of the sixteenth century after the arrival of American silver, the output of Ottoman mines was not affected until the early part of the seventeenth century.⁵⁴

The only silver mine of significance in Anatolia before the eighteenth century was located near Gümüşhane in northeastern Anatolia. Although this site was active from the Byzantine times,⁵⁵ little is known about its activities during the fifteenth and sixteenth centuries. It was taken over by the Ottomans during the reign of Mehmed II and the akçe issued there carried the mint location Canca.⁵⁶

Copper coinage

While the akçe was the basic unit of account and the leading medium of exchange, for purposes of small daily transactions, copper coinage called mangır, *mankur* or *pul* was used in local markets.⁵⁷ Most sources agree that the minting of mangırs began under Murad I (1362–89) although some specimens have been attributed to Orhan (1324–62).⁵⁸ In contrast to the akçe, most of the copper coinage was produced in Istanbul, Edirne, and Anatolia where the copper mines were located. Around the middle of the fifteenth century, mangırs were being produced at eight locations in Anatolia.⁵⁹ Part of

⁵¹ S. Cirkovic, "Production of Gold," 58–60.

⁵² Murphey, "Silver Production in Rumelia," 87–97.

⁵³ Cirkovic, "Production of Gold," 53.

⁵⁴ For the decline and closure of Ottoman silver mines in the seventeenth century, see chapter 8, p. 139.

⁵⁵ Vryonis, "The Question of Byzantine Mines," 7–8. See also pp. 26 and 30 above.

⁵⁶ Schaendlinger, *Osmanische Numismatik*, 93. For the mining activity at Gümüşhane during the eighteenth century, see chapter 9.

⁵⁷ The origins of the term *mangır* or *mankur* is Mongolian. *Pul* goes back to the Byzantine folis which was then adopted as *fels* or *fulus* in plural by the medieval Islamic societies. See "Fulus," in *Encyclopedia of Islam*, second edition.

⁵⁸ Schaendlinger, *Osmanische Numismatik*, 87–88; Sultan, *Coins of the Ottoman Empire*, 8–22.

⁵⁹ According to the available numismatic evidence, the mints that issued mangır during the reign of Mehmed II (1444 and 1451–81) were Edirne, Kostantaniye, Bursa, Amasya, Ayasuluk, Ankara, Bolu, Tire, Kastamonu, Karahisar (Afyon), and Serez. Schaendlinger, *Osmanische Numismatik*, 90–95.

these coins were then transported in bulk to the Balkans since copper-mining activity there remained very limited.⁶⁰

Two different sizes of copper coins circulated during the reign of Mehmed II. The larger coins weighed one dirham (3.20 grams) each and eight of them equaled one akçe in value. Smaller coins weighed one third of a dirhem and twenty-four of these equaled one akçe in value. In the second quarter of the sixteenth century, eight mangırs equaled one akçe. In the second half of the sixteenth century, smaller copper coins were issued once again as half and quarter mangırs. Thirty-two of the smallest coins equaled one akçe.⁶¹ (See figures 5 and 6.)

Unlike silver coinage whose value closely reflected its intrinsic value or specie content, copper coinage circulated on the basis of its nominal value as fixed by the government. The considerable difference between the metallic content and nominal value provided the state with an opportunity for seigniorage income. To realize this potential, the government refused to accept copper coinage in payments to the state. It also supervised closely its production and distribution.⁶²

The right to mint and circulate copper coinage in each locality was auctioned to private entrepreneurs. These monopolies usually lasted for three years. The mangırs or pul were then minted and sold at the local markets in return for payments in akçe. To prevent the flooding of local markets by these *pul emins*, however, the state often placed a limit on their output.⁶³ With each new issue, the old coins were declared invalid and prohibited from circulation. When the new issues became more frequent, however, the mangır increasingly took the form of a tax imposed on the local economy. Some historians have emphasized this aspect of copper coinage and argued that mangırs amounted to little more than forced taxation. The indispensable role of copper coinage as small change in the workings of the daily economies should not be overlooked, however. Local economies were in need of coinage and the state took advantage of that to secure a steady source of seigniorage income.⁶⁴

⁶⁰ The known exception is Serez in Macedonia. The occasional production of mangırs at that mint during the fifteenth century suggests the existence of a copper mine in the vicinity.

⁶¹ Ölçer, *Ornamental Copper Coinage*; Sahillioğlu, "Osmanlı Para Tarihi Üzerine Bir Deneme," pp. 123–28; and H. Sahillioğlu, "Fatih'in Son Yıllarında Bakır Para Basılması ve Dağıtılması ile İlgili Belgeler," *Belgelerle Türk Tarihi Dergisi* 6 (1968), 72–75.

⁶² For example, the central government became concerned late in the sixteenth century that copper brought from Hungary competed with output of the Küre mine in northern Anatolia. It then limited the sale of the copper from Hungary to the Balkans and prohibited its transportation to Anatolia. BOA, MHM. vol. xxviii, 404/174 dated 1576.

⁶³ Ölçer, *Ornamental Copper Coinage*.

⁶⁴ For insightful discussions of petty coinage in late medieval economies, see Cipolla, *Money, Prices and Civilization*, 27–37 and J. H. Munro, "Deflation and the Petty Coinage Problem in the Late-Medieval Economy: the Case of Flanders, 1334–1484," *Explorations in Economic History* 25 (1988), 387–423. See also chapter 4, pp. 68–70 and chapter 9, pp. 149–55.

Interventionism and debasements as policy

The two reigns of Mehmed II (1444 and 1451–1481) constitute a unique era in Ottoman monetary history that combined some rare conditions with exceptional state policies.¹ The interventionism exhibited by the central government in fiscal, economic, and monetary affairs during this period was unmatched in later periods. The reign of Mehmed II was also unique in Ottoman history in terms of government attitudes towards debasements. The silver content of the akçe had changed very little from the 1320s until the 1440s.² During these three decades, however, debasements were used as regular policy to finance costly military campaigns and expand the role of the central government. Between 1444 and 1481, the silver content of the Ottoman unit was reduced by a total of 30 percent through debasements undertaken every ten years. Although these debasements and other monetary practices of Mehmed II have been described in some detail, the motives behind these policies are still not well understood.

This chapter will argue that two features of the period were responsible for this unique combination of policies: the centralization drive of Mehmed II and the severe shortages of specie. During his thirty-year reign, Mehmed II successfully built, from an emerging state dependent upon the goodwill and manpower of the rural aristocracy, an expanding empire with a large army and bureaucracy. During the process, the central government began to control a larger share of the resources and revenues at the expense of the provinces. This centralization drive thus both helps explain the ascendancy of interventionism and underlines the fiscal motive behind the debasements.

The severe shortages of specie known as the Silver Famine, faced by much of Europe as well as the Ottoman lands during the second half of the fifteenth century, also contributed to the interventionism of the period. The central government adopted strict measures during this period with respect

¹ Mehmed II first ascended the throne in 1444, at the age of 12, after the voluntary retreat of his father, Murad II. That first reign lasted less than one year, however, until his father decided to come back. Upon the death of Murad II, Mehmed II returned to the throne in 1451 and ruled for three decades.

² See table 3.1.

to the circulation of specie and coinage which contrasted sharply with the attitude displayed towards the inflows specie and circulation of foreign coinage. These rules and laws were rarely enforced in later periods.

The policy of regular debasements encountered considerable opposition, however, including a revolt by the Janissaries. After the death of Mehmed II, his successor Bayezid II was forced to promise to end the policy of regular debasements. The last section of the chapter will develop a political economy framework to examine the costs and benefits of debasements to the state, and more importantly, to the various social groups affected by them.

Centralization and interventionism

Mehmed II was the the real architect of a centralized, absolutist Ottoman administration. In addition to the conquest of Constantinople and expanding the territories controlled by the Ottoman state in both the Balkans and Anatolia, he increased the role and importance of the slave-based central bureaucracy and the Janissary army at the expense of the Turkmen aristocracy of the provinces. A number of harsh measures were used during this process. In addition to higher taxes, state monopolies were established in basic commodities such as salt, soap, and candle wax. Land and other properties in the hands of private owners or pious foundations (*vakıf*) were confiscated. As many as 20,000 estates and villages were taken over by the state and then assigned to sipahis as *timars*, according to chronicles. A policy of forced colonization and tax concessions was used to bring skilled artisans and other immigrants from Anatolia and the Balkans to reconstruct and repopulate the capital city of Istanbul. Finally, very detailed laws were issued to control and regulate the daily economic life in the leading cities of the Empire, Bursa, Edirne, and Istanbul.³

The revenues of the central treasury increased considerably as a result of these measures. The treasury also benefited from the territorial conquests of the period and the extraction of one-time or annual tributes from vassal states, often paid in gold ducats. A Venetian survey of the receipts of the Ottoman state during this period listed the following sums paid annually by the vassal countries: Bosnia and Herzegovina, 18,000 ducats; Wallachia,

³ H. İnalçık, "The Ottoman Economic Mind and Aspects of the Ottoman Economy," in Michael Cook (ed.), *Studies in the Economic History of the Middle East* (Oxford University Press, 1970), 300–308; B. A. Cvetkova, "Sur certain reformes du régime foncier du temps de Mehmed II", *Journal of the Social and Economic History of the Orient* 6 (1963), 104–120. N. Beldiceanu, "Recherches sur la Réforme Foncière de Mehmed II," *Acta Historica* 4 (1965), 27–39. For details of the laws regulating urban economic life, see Ö. L. Barkan, "XV. Asrın Sonunda Bazı Büyük Şehirlerde Eşya ve Yiyecek Fiyatlarının Tesbiti ve Teftişi Hususlarını Tanzim Eden Kanunlar," *Tarih Vesikaları* 1 (1941–42), 326–40; 2 (1942–43), 15–40 and 168–77; and A. Akgündüz, *Osmanlı Kanunnameleri ve Hukuki Tahlilleri* (Istanbul: Fey Vakfı, 1990–94), vol. I, 378–80.

17,000; Moldavia, 6,000; Trebizond, 3,000; Kaffa, 3,000; Amasra and Sinop, 14,000. The tributes paid by the Venetian possessions in the Morea and in Albania were not included.⁴

Not all of the new revenues were immediately spent, however. In the absolutist logic of Mehmed II, a strong treasury was also a means of power and independence for the ruler. The central government thus followed a policy of accumulating large reserves in the treasury. An inventory taken at the time of Mehmed II's death in 1481 showed that the state treasury contained, amongst other things, 240 million akçes and another 104 million akçes worth of gold coins.⁵ These were very large sums comparable in order of magnitude to the volume of akçes in circulation during these decades.⁶ Budget surpluses and accumulation of reserves contributed further to the fiscal strains and shortages of specie being experienced by the economy and society at large.⁷

It should not be surprising, therefore, that all these measures met with strong resentment and opposition. One important source of the discontent was the ulema who lost control of large sources of revenue when many of the pious foundations were taken over by the state. The owners of the privately held lands (*mülk*) which were expropriated by the state joined them. Nomads, warriors, and aristocrats of the frontier areas who had regularly joined the military campaigns and contributed to their success also opposed increased centralization and taxation. Nonetheless, Mehmed II was able to continue with these policies until the end of his reign through a combination of increased power at the center and the success of his military campaigns which resulted in considerable territorial expansion and booty for many of the groups involved.⁸

The interventionist logic of the central government in fiscal and economic matters was readily extended to the monetary sphere during these decades. The government issued large numbers of laws to regulate mint activity, the operation of mines producing gold and silver, and perhaps most interestingly, the circulation and transportation of specie in Ottoman lands.⁹ In

⁴ F. Babinger, *Mehmed the Conqueror and his Time*, ed. by W. C. Hickman (Princeton University Press, 1978), 455.

⁵ H. Sahillioğlu, "Bir Mültezim Zimem Defterine Göre XV. Yüzyıl Sonunda Osmanlı Darphane Mukataaları," *İstanbul Üniversitesi İktisat Fakültesi Mecmuası* 23/1-2 (1962-63), 174-86.

⁶ For estimates of the volume of silver coinage in circulation during the reign of Mehmed II, see pp. 51-52 below and appendix II.

⁷ "Akçalar cemedilip hazinelere koyalar, memleket kesatlık oldu." Halil İnalçık citing Aşıkpaşazade and the anonymous chronicler of *Tevarih-i Ali Osman*. İnalçık, "Osmanlı İmparatorluğu'nun Kuruluş ve İnkişafı Devrinde," 653.

⁸ Kafadar, "When Coins Turned into Drops of Dew and Bankers became Robbers of Shadows; the Boundaries of Ottoman Economic Imagination at the end of the Sixteenth Century," unpublished Ph.D. dissertation, McGill University, 1986, pp. 51-53.

⁹ For full texts of the laws issued by Mehmed II to regulate the operations of mints and mines, see Beldiceanu, *Les Actes des Premiers Sultans Conservés dans les Manuscrits Turcs de la Bibliothèque Nationale à Paris*, I: *Actes de Mehmed I et Bayezid II* and II: *Règlements Miniers*,

order to assess the motives and content of these strict measures more properly, however, we need to consider first, other conditions that contributed to their adoption.

The silver famines

Shortages of specie and coinage were quite common in the late medieval era. The fluctuations in the availability of one precious metal or another always depended on the opening of new mines, or the closing of old ones, on the wear and tear of coin in circulation, on hoarding and dishoarding, on loss during recoinage, and on the balance of payments with other parts of the world.¹⁰ The two well-known spells of silver shortages in Europe, the first lasting for about two decades around the turn of the fifteenth century and the second lasting for about three decades around mid-century were more severe than anything that had taken place since the seventh century. Since these two episodes are well documented and relate closely to the developments in Ottoman lands, they need to be examined closely. The primary reason for their appearance was that the continuous flows of silver from the mines of central Europe, in Bohemia and Hungary, were no longer sufficient for the demands put upon them, especially in meeting the large trade deficits Europe accumulated with the Near East and Asia. As the scarcity of silver increased, the shortages were exacerbated by the rise in hoarding, by the reluctance of people to use silver in daily transactions and the decline in credit.¹¹

In Europe only the Venetians had partially escaped the effects of the silver famine because they had access to the mines of Serbia and Bosnia which had begun to contribute to the Venetian supply of silver from the late 1370s. From Italy and elsewhere in Mediterranean Europe, precious metals flowed eastwards to and through the Near East as payments for the trade deficits in that direction.¹²

Trade deficits were not always paid in silver, however. Whether silver or

1390–1512 (Paris and La Haye: Mouton and Co., 1960 and 1964); Beldiceanu, *Les Actes des Premiers II* (1964); and Akgündüz, *Osmanlı Kanunnameleri*, vol. 1.

¹⁰ Peter Spufford, *Money and its Use in Medieval Europe* (Cambridge University Press, 1988), 339–40.

¹¹ J. Day, “The Great Bullion Famine of the Fifteenth Century,” *Past and Present* 79 (1978), 1–49; and Spufford, *Money and its Use*, pp. 319–38.

¹² D. Kovacevic, “Dans le Serbie et la Bosnie médiévales: les Mines d’Or et d’Argent”, *Annales E.S.C.* 15 (1960), 248–58. Eliyahu Ashtor estimates that in the fifteenth century in general 40 percent of the goods imported from the east to Europe were paid by western goods and 60 percent by precious metals. He also estimates that two thirds of this trade was in Venetian hands. Ashtor, *Les Metaux Precieux et la Balance des Payements du Proche-Orient à la Basse-Epoque* (Paris: S.E.V.P.E.N., 1971), 65–108; also see E. Ashtor, “Observations on Venetian Trade in the Levant in the Fourteenth century,” *Journal of European Economic History* 5 (1976), 533–86.

gold flowed to the East depended upon the relative ratios of the two metals in Europe and the Near East. When Europe began to feel the impact of silver shortages, payments for trade deficits began to be made in gold, both European and African in origin. The silver shortages in Europe thus had immediate repercussions in Egypt where the coinage of silver dirhams was discontinued in 1397–98 because silver had stopped coming from southern Europe. The emergence of the Egyptian ashrafi and the increasing availability of the Venetian ducat in the Ottoman markets as well as the increased minting of the imitations of the Venetian ducat around the eastern Mediterranean were closely related to these developments.¹³

The continued outflow of precious metals, first of silver and then of gold, then again silver, and once more gold, could not be sustained after the middle of the fifteenth century, however, due to the emerging shortages of specie. When the Ottomans took control, once again, of the silver mines in Bosnia and Serbia in the 1450s and 1460s, even Venice was afflicted by the bullion famine. The famine then took hold of southern as well as northern Europe until new sources of silver began to open up in the 1470s and 1480s in Bohemia and Saxony. Until then, however, European imports from and payments to the Near East remained sharply lower. The decline in the specie flows from the West must have thus contributed to the specie shortages in the Near East.

The second of these prolonged silver famines coincided with the reign of Mehmed II. It is interesting that despite the capture of the silver mines of Serbia and Bosnia during the 1450s and 1460s, both the Balkans and especially Anatolia were affected by the silver shortages. The persistence of the shortages during the third quarter of the fifteenth century helps us understand much better the motives behind the strict measures adopted by Mehmed II with respect to the circulation of silver.¹⁴

In turn, the laws and regulations issued during the reign of Mehmed II regarding the circulation of specie are the best and most detailed evidence we have for both the extent and persistence of the shortages and the specific measures taken by the government in response.¹⁵ These laws demanded that all bullion produced in or imported into the Ottoman lands be surrendered to the mints to be coined. The coinage of foreign states was excluded from these prohibitions. The government also brought in restrictions on the

¹³ Day, "The Great Bullion Famine," 22–23; and Spufford, *Money and its Use*, 353–56.

¹⁴ The first time an Ottoman government adopted prohibitionist measures with respect to specie and coinage was during the reign of Bayezid I (1389–1402) which coincided with the first silver famine that lasted for two decades beginning around 1390. Aşıkpaşazade, the well-known Ottoman chronicler also mentions the reign of Murad I (1362–1389). Kafadar, "When Coins Turned into Drops of Dew", 47.

¹⁵ For full texts, see R. Anhegger and H. İnalçık, *Kanunname-i Sultani-ber Muceb-i Örfi Osmani* (Ankara: 1956); Beldiceanu, *Les Actes des Premiers Sultans I* (1960); Akgündüz, *Osmanlı Kanunnameleri*, vol. I, 570–74; also see H. İnalçık, "Bursa Şeriye Sicillerinde Fatih Sultan Mehmed'in Fermanları," *Belleten* 44 (1947), 697–98.

transportation and exchange of specie by merchants and other private individuals. The government employed *yasakçı kuls* or silver seekers who were given powers to search the belongings of merchants and money-changers (*sarrafs*) as well as the rooms of lodging houses and confiscate any silver found to be in illegal possession. The silver thus found was then purchased by the state at the official prices which were approximately one third below the market rate. The silver was to be brought to the mints to be coined. Exports of specie were also prohibited. These were accompanied by restrictions on the use of gold and silver in production. No goldsmith or silver embroiderer was allowed to keep more than 200 dirhams (640 grams) of silver¹⁶ (for detailed texts of these prohibitions see appendix I.) The government also put an end to the export of the output of the silver mines.¹⁷ At the same time, Ottoman authorities tried to encourage the importation of bullion and circulation of foreign coinage. The government exempted silver and gold imports from customs duties. The treasury and courts regularly accepted foreign coinage as payment.

However, it is one thing to issue these laws and it is quite another to implement them successfully. The ability of merchants, moneychangers and others to evade these searches is well known. It was usually more difficult for the government to regulate the money markets than it was to regulate commodity trade. Moreover, these government policies may have actually contributed to the severity of the shortages. Strict prohibitions and searches by the government may have prolonged the shortages by increasing the extent of hoarding. Closely related was another government practice, budget surpluses and the accumulation of large reserves at the treasury. Initially, this latter policy may have been inspired by the ongoing shortages of specie and probably represented a cautious response to them. In the longer term, however, the growing reserves exacerbated the shortages just like the prohibitions and the searches. In fact, the adverse consequences of these government practices may help explain why Ottoman lands experienced the silver shortages so severely despite the recapture of the Balkan silver mines during the 1450s and 1460s.

To date, these searches and prohibitions have been regarded as permanent fixtures of Ottoman economic life and typical of the approach of most Ottoman administrations to monetary issues.¹⁸ In fact, the reign of Mehmed II was unique in the way the central government intervened to regulate not only specie and money but also trade and the urban economy.

¹⁶ For Ottoman gold and silver embroidery and their consumption of the precious metals, see H. Sahillioğlu, "XVII. Yüzyılın Ortalarında Sırmakeşlik ve Altın-Gümüş İşlemeli Kumaşlarımız", *Belgelerle Türk Tarihi Dergisi* 16 (1969), 48–53.

¹⁷ For the laws regarding the regulation of the mines and mine production issued during the reign of Mehmed II, see Beldiceanu, *Les Actes des Premiers Sultans*: vol. II (1964).

¹⁸ H. İnalcık, "Dar al-Darb," *Encyclopedia of Islam*, second edition (Leiden and New York, NY: E. J. Brill, 1961), 118.

Table 3.1. *The Ottoman akçe and its exchange rate, 1326–1481*

Years	Akçes per 100 dirhams	Akçe in grams	Exchange rate versus Venetian ducat	Calculated gold:silver ratio
1326	265	1.15	n.a.	n.a.
1360	260	1.18	30–32	9.3
1388	255	1.18	30	9.0
1400	255	1.20	32	9.7
1410	265	1.15	35	10.2
1420	255	1.18	35	10.5
1431	260	1.18	35–36	10.6
1444	290	1.06	39–40	10.6
1451	305	1.01	40–41	10.4
1460	320	0.96	42–43	10.3
1470	330	0.93	44	10.4
1475	400	0.77	45	8.8
1481	410	0.75	46	9.0

Notes:

1 From some early date until late in the seventeenth century, central government orders to the mints specified the number of akçes to be struck from 100 dirhams of “halis ayar” or pure silver. The weight of the Ottoman monetary dirham, however, has caused much confusion amongst numismatists since the nineteenth century. Recently, Halil Sahillioğlu has shown that the dirham used in defining the standards of the akçe until late in the seventeenth century was the dirham of Tebriz, which was adopted from the Ilkhanids, the Mongols of Persia in the fourteenth century and weighed 3.072 grams. H. Sahillioğlu, *Osmanlı Para Tarihi Üzerine Bir Deneme; Bir Asırlık Osmanlı Para Tarihi* unpublished thesis for associate professorship (Istanbul: Üniversitesi İktisat Fakültesi, 1965); and “The Role of International Monetary and Metal Movements in Ottoman Monetary History.”

2 Evidence from government sources and mint archives regarding the changing official standards of the akçe is scarce for this early period. The information presented here is based mostly on the weight of coins in numismatic collections. N. Aykut, “Osmanlı İmparatorluğu’nda Sikke Tecdidleri,” *İstanbul Üniversitesi Edebiyat Fakültesi Tarih Enstitüsü Dergisi* 13 (1987) 257–97; and Jem Sultan, *Coins of the Ottoman Empire and the Turkish Republic*, a detailed Catalogue of the Jem Sultan Collection (Thousand Oaks, CA: R and B Publishers, 1977) has been especially useful in this respect. Most of the figures of column 1 above are thus derived from the gram weights of column 2.

3 Even when information regarding government standards for the akçe is available, it is not clear to what extent these standards were followed by the mints. Government control over the mints varied over time and space. In addition, the weight and fineness of the coins varied considerably due to the imprecise nature of the available technology.

4 Following most numismatic catalogues, the calculations for the last column assume that the standard or proper (*sag*) akçe contained 90 percent silver, on

average. If the existing specimens are analyzed with the help of spectroscopic methods, the silver content of the akçe would be established with greater precision.

5 The Venetian ducat weighed 3.559 grams with a fineness of 0.997 during this period.

6 In view of the nature of the available data, the gold:silver ratios calculated here should be taken as reasonably good approximations. These ratios serve the additional purpose of providing an indirect check on the other figures. The average gold:silver ratio in Europe remained close to 10 during the second half of the fifteenth century. F. Braudel and F. Spooner, "Prices in Europe from 1450 to 1750," in E. E. Rich and C. H. Wilson (eds.), *The Cambridge Economic History of Europe*, vol. IV (Cambridge University Press, 1967), 459.

Sources: Author's calculations based on Sahillioğlu, *Osmanlı Para Tarihi Üzerine Bir Deneme*, 1–58, *Bir Asırlık Osmanlı Para Tarihi*, 1–17 and "Role of International Monetary Movements", Sultan, *Coins of the Ottoman Empire*; Aykut, "Osmanlı İmparatorluğu'nda Sikke Tecdidleri", 257–97; İsmail Galib, *Takvim-i Meskukat-ı Osmaniye* (Istanbul, H 1307/1889–90); Halil Edhem, *Meskukat-ı Osmaniye*, cilt 1 (Istanbul 1334/1915, 16); Ahmet Refik; "Osmanlı İmparatorluğu'nda Meskukat," *Türk Tarih Encümeni Mecmuası* 14; Akgündüz, *Osmanlı Kanunnameleri*, vol. I, 384; N. Beldiceanu and I. Beldiceanu-Steinherr, "Les Informations les plus Anciennes sur les Florins Ottomans" in *A Festschrift presented to Ibrahim Artuk on the occasion of the Twentieth Anniversary of the Turkish Numismatic Society* (Istanbul: Turkish Numismatic Society, 1988); P. Spufford, *Handbook of Medieval Exchange* (London: Royal Historical Society, 1986).

The adoption of these measures was due to a combination of interventionism by a centralizing, absolutist ruler and the persistence of unusually severe specie shortages. With the fading of the silver famine and the growing availability of specie during the sixteenth century, Ottoman governments abandoned such a high degree of interventionism in monetary affairs. Many of the codes issued during the reign of Mehmed II were rarely enforced in later periods. Only with the reappearance of specie shortages during the third quarter of the sixteenth century, was there a rise in government attempts to prevent exports of silver to Iran through closer supervision of the activities of the merchants.¹⁹

The debasements of Mehmed II

One of the most interesting and controversial policies of Mehmed II was the periodic use of debasements. Historians are well aware of this policy. Nonetheless, the motives behind and the conditions surrounding these debasements are still not well understood. Before examining these debase-

¹⁹ Halil Sahillioğlu, "Kuruluştan xvii. Asrın Sonlarına Kadar Osmanlı Para Tarihi," 188–201.

ments against the background of the fiscal policies and the persistent silver shortages of the period, however, it will be useful to review the detailed numismatic evidence that has become available in recent years and establish more precisely the extent and timing of the decline in the silver content of the akçe.

From 1326 when the Ottomans issued their first silver coin, until the first reign of Mehmed II in 1444, the akçe was remarkably stable. The standard akçe was minted from “clean” or “pure” (*tam ayar*) silver and its weight fluctuated within a very narrow range, between 1.15 and 1.20 grams. (See table 3.1 and graph 3.1.)²⁰ The stability of the currency suggests that Ottoman finances were in reasonably good shape during this early period of rapid territorial expansion. The existence of currency communities between the Ottomans and other Turkmen principalities during the fourteenth century may have forced each of them to adhere more closely than otherwise to the common standards.²¹ The capture of some silver mines in Macedonia and Serbia towards the end of the fourteenth century must have also helped the akçe.

From the first accession of Mehmed II until his death in 1481, however, the weight and silver content of the Ottoman unit was reduced six times. These were called renewal of coinage (*tecdid-i sikke*) operations. Since the dates of the new issues are indicated on the coins, it is possible to establish the timing of the debasements even in the absence of a complete set of mint records.²² The debasements of Mehmed II were taken in the years 848 H/1444, his first accession, 855 H/1451, his second accession, and then also in 865 H/1460–61, 875 H/1470–71, 880 H/1475–76 and 886 H/1481. These dates indicate that after the first and second accessions of Mehmed II, the government followed a policy of one debasement every ten years in the Islamic calendar. Towards the end of his reign, the intervals were shortened to five and six years.

Until the end of the seventeenth century government orders to the mints demanded that a certain number of akçes were to be struck from 100 dirhams of clean silver. No alloy was to be added. (For an example of these instructions, see appendix I.) With each debasement, the government thus raised the number of coins to be minted from the same amount of silver and the one-akçe piece thus became a visibly smaller coin. It is thus possible to

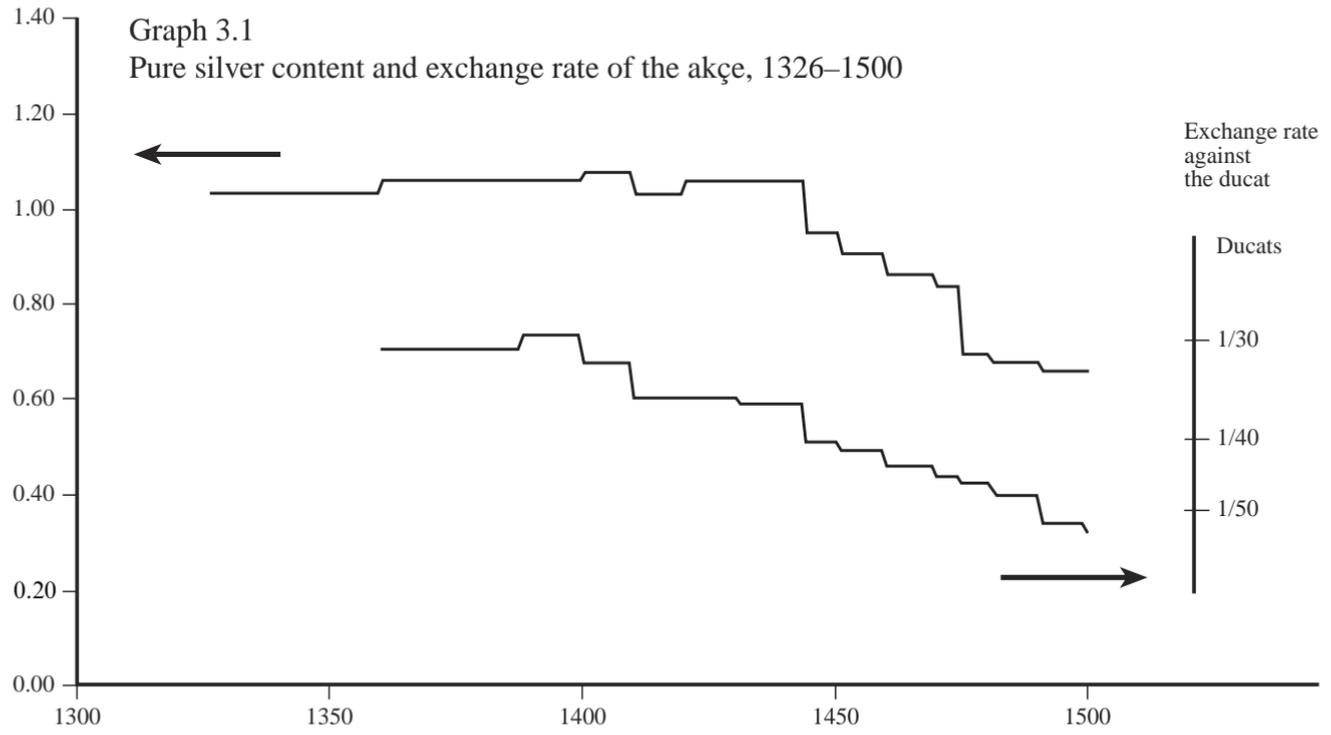
²⁰ It is not entirely clear what is meant by clean or pure silver. Until spectroscopic studies establish the fineness of the early akçes, we will assume that “clean” or “pure” means 90 percent pure; see also notes to table 3.1. It is possible that the fineness and silver content of the akçe declined during the power struggles of the interregnum period (1402–13) following the defeat of Bayezid I by Timur. I am indebted to Elizabeth Zachariadou for raising this possibility.

²¹ For the existence of currency communities amongst the Turkmen principalities in fourteenth century Anatolia, see chapter 2, pp. 31–33.

²² Coins of Mehmed II are exceptional in this respect. Coins of most other Ottoman sultans carry only the date of accession.

Pure silver content
in grams

Graph 3.1
Pure silver content and exchange rate of the akçe, 1326–1500



establish, with reasonable accuracy, the changing standards of the coins for each issue on the basis of the declining weights of large samples of coins available from numismatic collections.²³

An important component of the policy of periodic debasements was the prohibition of the old akçe each time the government issued new and smaller akçe. The bearers of the old coins were then asked to bring the old coins to the mints and exchange them at par with the new ones. In order to reinforce this rule, the government empowered the *yasakçı kuls* to search merchants, travelers and other individuals for old akçe just as they searched them for bullion during periods of silver shortage.²⁴ The state also followed a policy of high mint charges during this period. Those who brought silver to the mints were asked to pay as much as 15 to 20 percent of the value of their silver to the mint on return of the coinage. Mint charges were lower in both the earlier and later periods.

It is thus clear that the government aimed at obtaining considerable revenue from these operations. One has to be cautious, however, about the effectiveness of these measures. It is doubtful that all of the old coinage was returned to the mints every time the government undertook a renewal-of-coinage operation. In fact, by encouraging individuals not to bring their bullion and old coinage to the mints, these measures may have actually contributed to the persistence of silver and coinage shortages.

Motives and explanations

In his seminal article on the use of debasements in medieval Europe, Carlo Cipolla identified a number of causes of medieval debasements.²⁵

The most important of these were

- a) fiscal reasons, that is, budget deficits and the need for the government to raise additional revenue
- b) increase in the economy's demand for money and the need to increase the money stock in circulation
- c) pressure from social groups in the direction of profit inflation
- d) mismanagement of the mints

²³ For this purpose, the most detailed evidence on the coins of Mehmed II is available from Aykut, "Osmanlı İmparatorluğu'nda", 257–97; also Sahillioğlu, "Osmanlı Para Tarihi Üzerine Bir Deneme, 40–44; C. Ölçer, "II. Mehmed Dönemi Sikkeleri", *Tarih ve Toplum* 5 (1988), 13–17; N. Pere, *Osmanlılarda Madeni Paralar* (İstanbul: Doğan Kardeş Matbaacılık, 1968); A. Schaendlinger, *Osmanische Numismatik* (Braunschweig: Klinkhardt and Biermann, 1973); Sultan, *Coins of the Ottoman Empire*; and other numismatic catalogues cited in table 3.1.

²⁴ Beldiceanu, *Les Actes des Premiers Sultans*, vol. I, and Akgündüz, *Osmanlı Kanunnameleri*, vol. 1, 570–71.

²⁵ C. M. Cipolla, "Currency depreciation in medieval Europe," *Economic History Review* 15 (1963), 413–5.

- e) the wear on the existing stock of coins in circulation, occasionally aggravated by the clipping of the coins.

This list offers a very useful starting point for the study of Ottoman debasements. This section considers the first two of the causes identified by Cipolla. The third cause, the position of different social groups for or against inflation, will be examined in the next section. The last two of the causes above are important for understanding Ottoman debasements in other periods but not those of Mehmed II. Until the second half of the sixteenth century, the central government was able to control the mints very closely. Similarly, the wear on the coins in circulation is a gradual process that encourages debasements in the longer term. It can not explain either the frequency or the extent of the debasements during the three decades under review here.

The most basic reason for the periodic use of debasements by Mehmed II was to raise revenue for the central treasury. Since the obligations of the state, most importantly to the soldiers, bureaucrats, and suppliers was expressed in akçes, the basic unit of account, a reduction of the silver content of the akçe allowed the state to increase the amount of akçe it could mint from or the payments it could make with a given amount of silver. The debasements thus complemented increased taxation and other harsh fiscal measures adopted by Mehmed II to concentrate a greater share of the resources at the center, support the growing needs of an expanding bureaucracy and a central army as well as finance the military campaigns.

The regularity of the debasements suggests, however, that they were not necessarily undertaken when the state had urgent needs and had exhausted other sources of revenue. Instead, debasements were turned into a regular levy and were undertaken even when the treasury had ample reserves or when the fiscal needs were not urgent. The very large volume of the reserves of the state treasury as indicated by the inventory taken at the time of the sultan's death also confirms that debasements were not driven by fiscal emergencies but were used to build a powerful treasury. Such use of debasements is unique in Ottoman history. In all other periods, debasements were undertaken under deteriorating budgetary conditions and in response to some urgent fiscal need.

It was the success of the early debasements that convinced the sultan and the bureaucracy to continue the practice on a regular basis. Theodore Cantacuzene Spandounes, a relative of one of Mehmed II's vezirs who was born into a Byzantine imperial family, relates in his account of the rise of the Ottomans written in the early part of the sixteenth century that the debasement of the year 865 H/1460–61 reduced the standards of the akçe from 280 akçes to 335 akçes per 100 dirhams of Tebriz (3.027 grams each), a decrease of 16.5 percent. Spandounes then indicates that the mints converted approximately 218 million old akçes for new during this operation.

Multiplying the two, he presents an estimate for the total seigniorage revenues of the state from this operation. That sum was 35 million akçes, or about 800 thousand gold ducats at the prevailing rates of exchange, a huge amount for the fifteenth century equaling about 7 percent of the annual cash revenues of the central government.²⁶ In another independent attempt, Halil Sahillioğlu estimated that, based on the output and net revenues of mints, 350 to 750 million akçes or 268 to 560 tons of silver were converted in each of the debasements of Mehmed II.²⁷

Through these efforts, we are also able to obtain a rare glimpse into the amount of Ottoman silver coinage in circulation during the second half of the fifteenth century. Considering that some fraction of the existing akçes were never surrendered to the mints, it is certain that the actual money supply was larger than the volume of akçes surrendered to the state. Even if the above figures offer no more than a lower bound estimate of the total Ottoman coinage in circulation, they still provide an order of magnitude which is not available for any other period before the nineteenth century. (For more detail on basic economic and monetary magnitudes of this period, see appendix II.)

The figures calculated undoubtedly by the contemporaries and related by Spandounes for the seigniorage revenues overstate the longer term fiscal benefits of debasements, however. Since some of the dues or taxes collected by the state were already fixed in terms of the akçe, to the extent that debasements gave rise to price increases, future revenues from these sources declined in inflation-adjusted or real terms. It would thus be appropriate to characterize the state as a one-time beneficiary of a given debasement operation to the extent that prices rose in its aftermath. To make up for that loss, the state had to either adjust the nominal value of the fixed taxes upwards or resort to another round of debasement. There is in fact evidence from the account books of the palace kitchen at Istanbul indicating that the prices of basic foodstuffs rose roughly in proportion to the rate of debasements, by a total of approximately 30 percent from the 1460s until the end of the 1480s.²⁸

²⁶ T. Spandounes, *On the Origins of the Ottoman Emperors*, tr. and ed. by D. M. Nicol (Cambridge University Press, 1997), 109–10; see also T. C. Spandugino, *Petit traicte de l'origine des Turcs*, ed. by Ch. Schefer (Paris: Ernest Leroux, 1896), 57; the estimate has also been cited in İnalçık, “Osmanlı İmparatorluğu'nun Kuruluş ve İnkişafı Devrinde,” 681; and Kafadar, “When Coins turned into Drops of Dew,” 54.

²⁷ Sahillioğlu, “Bir Mültezim Zimem Defteri,” 174–76.

²⁸ This estimate is based on the preliminary results of a long-term project on the history of prices and wages in Istanbul. See graph 7.1 in chapter 7 for price trends in Istanbul from 1469 until 1700. The most important source of price data for the second half of the fifteenth century is the account books of the palace kitchen. Some of these have already been published in Ö. L. Barkan, “İstanbul Saraylarına Ait Muhasebe Defterleri,” *Türk Tarih Kurumu Belgeler* 13 (1981) 1–380; and Ö. L. Barkan, “Saray Mutfağının 894–895 (1489–90) Yıllarına ait Muhasebe Bilançosu,” *İstanbul Üniversitesi İktisat Fakültesi Mecmuası* 23 (1962–63), 380–98.

There are strong reasons why prices rose in the aftermath of debasements. A debasement typically increased the nominal value of coinage in circulation. Even if the prices did not rise quickly because of the shortages of specie or some other reason, long-distance trade acted as the ultimate equalizer in the longer term. The Balkans and Anatolia remained closely connected to the western end of the Mediterranean. If Ottoman prices became less expensive vis-à-vis Europe, these lower-priced commodities attracted large quantities of silver from the West, thus raising prices. Price adjustments after a debasement tended to be more rapid, the more open the economy and the more frequently the policy was used.²⁹

Price increases bring us to the second possible motive for the debasements of Mehmed II, namely, the silver shortages experienced during most of his reign. In the short term, debasements provided relief from shortages of specie and coinage in circulation by increasing the nominal value of the coinage in circulation. However, debasements could provide only temporary relief since prices tended to adjust upwards sooner or later and the volume of coinage in circulation adjusted for the price level tended to return to its earlier levels.

The motives behind debasements and whether they could provide relief from specie shortages have been debated extensively both in the European and Ottoman contexts. Examining the debasements of the fifteenth century in France, Harry Miskimin observed a connection between the bullion shortage and royal intervention in economic activity. He has emphasized that the chronic monetary shortages encouraged coinage debasement. Miskimin also argued that since debasements were largely, if not entirely, offset by a rise in nominal prices, we must conclude that the relevant money for the economy was in fact bullion. Alteration and expansion of the money supply through debasements were quickly negated by the price mechanism that almost immediately restored the bullion value of the goods sold. International trade and bullion flows played an important role in this process of adjustment. For this reason, he concluded, royal efforts to offset the detrimental effects of bullion shortage by means of debasement were doomed to frustration. The seemingly awesome capacity of the French monarchy to manipulate the nominal money supply was no more than an illusion of power.³⁰

²⁹ I am thus arguing that the price-specie mechanism underlined by Hume centuries ago was already in effect during the fifteenth and certainly in the sixteenth century. For similar commodity and specie flows between France and England during the fifteenth century, see H. A. Miskimin, *Money and Power in Fifteenth Century France* (New Haven, CT: Yale University Press, 1984).

³⁰ Miskimin, *Money and Power*, 54–72. His study of mint output together with the decline in the silver content of the currency show that the years of maximum debasement followed the years of peak mint output in bullion terms with a notable lag. His figures also suggest that debasement was a desperate measure, imposed by political and military exigencies, only after the supplies of bullion in the hands of the state had been exhausted and precious metals had

Michael Bordo agrees that attempts to increase the money supply through debasements were doomed. At the same time, however, he emphasizes that debasements were still a viable source of revenue for the state until prices adjusted to reflect the decline in the intrinsic value of coinage. Even if prices adjusted immediately, the king could still collect seigniorage revenue unless the public stopped bringing old coins to the mint. From this perspective, then, debasements made sense not as a means of dealing with specie shortages but as a response to the fiscal exigencies of the state.³¹

The persistence of debasements throughout western Europe during the fourteenth and fifteenth centuries suggests that these interventions could not simply be futile efforts. Although they did not solve the problems of silver shortages, debasements did provide fiscal relief for the states and there lay their appeal. Peter Spufford also makes a distinction between silver shortages and the fiscal causes of debasements in the European context. He emphasizes that the debasements of fourteenth-century Europe were not due to shortages of silver but by-products of wars of the long and expensive process of centralization. Ultimately, they were fiscal in nature.³²

In the Ottoman context, too, the simultaneous occurrence of strong interventionism and harsh fiscal measures together with the silver shortages has made it difficult for historians to identify the motives behind or the causes of debasements. In his study of the rise of the Ottoman state first published half a century ago, Mustafa Akdağ considered the silver shortages simply a reflection of Ottoman economic and fiscal difficulties. At the same time, however, he refused to accept fiscal needs as a legitimate explanation for debasements.³³ In his response, Halil İnalçık adopted a broader perspective and argued that the Ottoman silver shortages should be considered as part of a larger pattern that prevailed in Europe and the Near East during the fifteenth century. For İnalçık, the reason behind the specie scarcities was the growth of the economy and monetization which outstripped the availability of silver. He then argued that monetary shortages were also the real factor behind the debasements but that Ottoman statesmen who were unable to look into these factors acted with only fiscal considerations in mind. For İnalçık both the debasements and the policy of silver prohibitions and searches helped alleviate the scarcities. He did not consider the possibility that these policies may have actually contributed to the shortages.³⁴

If the Ottoman administrators saw debasements as a means of reducing

become too scarce to back the quantity of money of account needed to sustain the expenses of the royal armies.

³¹ M. D. Bordo, "Money, Deflation and Seigniorage in the Fifteenth Century," *Journal of Monetary Economics* 18 (1986), 289–318. bib. 337–46.

³² Spufford, *Money and its Use*, 289–318.

³³ M. Akdağ, "Osmanlı İmparatorluğu'nun Kuruluş ve İnkişafı Dövründe Türkiye'nin İktisadi Vaziyeti," *Belleten* 13 (1949), 526 and 14 (1950), 319–418.

³⁴ İnalçık, "Osmanlı İmparatorluğu'nun Kuruluş ve İnkişafı Dövründe," 651–55.

the silver shortages by adding to the nominal amount of currency in circulation, they must have soon realized that these efforts proved to be useless because the increases in the price level eliminated any increase in the real volume of coinage in circulation. Debasements were not discontinued, however. The policy of periodic debasements thus suggests that the central government did derive benefits from these operations and those benefits were entirely fiscal.³⁵ Other fiscal policies of the central government and the perspectives offered by the contemporary observers including the seigniorage calculations by Spandounes leave no doubt about the primacy of fiscal motives in these debasements.

Towards a political economy of Ottoman debasements

Carlo Cipolla has argued that one possible cause of debasements was the pressure from some social groups in favor of inflation. More generally, the timing and frequency of debasements depended upon the changing power balances between the state and society. In fourteenth-century Italian city states, for example, merchants who dominated the governments preferred debasements to increased taxation whenever the government faced fiscal difficulties. This was in part because the prices of goods held by the merchants typically rose together with other prices after a debasement. Moreover, the merchants who lent to the government protected themselves against debasements of the silver currency by demanding, in their loan contract, to be paid in gold ducats.³⁶ Similarly, the basic struggle for and against debasements in western Europe during the late medieval period took place between the central governments which held the power to issue money and which stood to gain from debasements, and the provincial aristocracy that had rented out their lands to tenants in fixed terms and thus had much to lose from the slide of the currency. The fate of the currency thus depended upon the outcome of the struggle between the centralizing monarchs and provincial aristocracy.³⁷ It would thus be useful to examine whether there existed any group in Ottoman society outside the state which stood to gain from debasements, and more generally, how different groups fared in the face of debasements and how they responded to the frequent debasements of Mehmed II.

At the outset, it should be emphasized that debasements had impact on virtually all groups in Ottoman society and in turn each group took a

³⁵ Bordo makes a similar argument regarding the persistence of debasements in fourteenth- and fifteenth-century Europe; Bordo, "Money, Deflation and Seigniorage"; see also A. J. Rolnick, F. R. Velde and W. E. Weber, "The Debasement Puzzle: an Essay on Medieval Monetary History," *The Journal of Economic History*, 56 (1996), 789–808.

³⁶ Cipolla, "Currency Depreciation," 414; and C. M. Cipolla, *The Monetary Policy of Fourteenth-Century Florence* (Berkeley and Los Angeles, CA: University of California Press, 1982).

³⁷ Spufford, *Money and its Use*, 289–318.

position. Most men and women at the time were clear about the consequences of different ways of dealing with the coinage, and who gained and who lost.³⁸ In general, all those who had future obligations expressed in terms of the unit of account, most importantly borrowers and tenants paying fixed rents in cash, stood to gain from debasements. In the Ottoman case, however, there did not exist a powerful group that stood to gain from debasements. Peasants who made up the overwhelming majority of the Ottoman population did not lose from debasements; if anything they tended to gain a little. By the second half of the fifteenth century, most lands had come under state ownership. Taxes and rents on both public and privately held lands were paid mostly in kind. Part of the obligations of the peasant producers, such as the *çift resmi* paid to the state once a year as a land tax was fixed in money terms, but this was small in relation to the tithe which was collected in kind.³⁹ In contrast, those agricultural producers who sold part of their crop in local markets received higher prices during periods of inflation. Peasants stood to benefit in a limited way from the debasements if the fixed dues they paid were not adjusted upwards, but the rural population did not have any influence on the monetary practices of the state during this period.

In the urban areas, too, there did not exist a powerful group that stood to gain from debasements. Even though credit relations began to expand, most borrowing remained small scale during the second half of the fifteenth century. Merchants and shopkeepers did not lose from debasements since the prices of goods they sold tended to rise during periods of inflation. There was always the risk, however, that the government would impose price ceilings on essential goods sold in the urban markets whenever prices rose too fast. Moneychangers, with their expert knowledge of the markets, benefited from the uncertainty and fluctuations in exchange rates as well as the requirements to surrender old coins. Most of them were net lenders, however, and they stood to lose from the inflation that followed debasements. Neither merchants nor moneychangers were powerful enough to influence state policy during this period.

The groups that stood to lose the most from debasements were those who were paid fixed amounts in akçes. The creditors and *sipahis* whose income depended, in part, on the fixed agricultural taxes collected in cash from the peasant producers were in this group. Most importantly, however, it was the employees of the state who were most sensitive to the fluctuations in the standards of the silver currency.

The most significant incident of opposition to the debasements occurred very early. After the first of the debasements undertaken during the reign of

³⁸ For a similar observation for western Europe in the fourteenth and fifteenth centuries, see Spufford, *Money and its Use*, p. 305.

³⁹ On taxes paid by the rural population, see H. İnalçık, "Osmanlılar'da Raiyyet Rüşumu," *Belleten* 23 (1959), 575–608.

Mehmed II in 1444, which involved an 11 percent reduction in the weight and silver content of the akçe, the janissaries were paid their ninety-day salaries with the new and visibly smaller akçes. In response, they gathered around a hill in Edirne, the capital at the time, and demanded that the government either go back to the earlier standard of coinage or raise their daily salaries. The janissaries were well aware that the debasements would mean a rise in the price level sooner or later. Along with other segments of society, they had also observed the decline in the exchange rate of the akçe against the Venetian ducat as cited in virtually every town and urban center around the eastern Mediterranean.

As a result, the government was forced to raise the salaries from three akçes to three and a half akçes per day. The hill in Edirne where the protest was undertaken was then named Buçuktepe (Half Hill) and the affair came to be referred to as the Buçuktepe incident. It would be a mistake, however, to treat this incident purely as a response to the debasement. More likely, the debasement served as a pretext for the dissatisfied groups to come together and assert themselves. The demonstration was most probably supported behind the scenes by some factions of the bureaucracy, ulema, and other urban groups and this incident helped pave the way for the return of Mehmed II's father Murad II to the throne in the same year. Mehmed II was only twelve years old at the time, and most likely, the decision for this first debasement was not his.⁴⁰

Even though Mehmed II resumed the policy of debasements after his return to the throne in 1451, the janissaries did not repeat their protests. One possibility is that their salaries were raised with each debasement. We do not yet have specific evidence about their daily salaries for the rest of the reign of Mehmed II. We do know, however, that by the early part of the sixteenth century, the daily salaries had risen from three and a half akçes to five akçes per day.⁴¹ In view of this evidence, a more general explanation for the silence of the janissaries would be that the policy of territorial expansion of Mehmed II was quite successful and the janissaries enjoyed the fruits of these military successes, receiving various material benefits including raises in their salaries. Finally, we need to take note of the success of the

⁴⁰ Konstantin Mihailovic, a Christian slave who became a janissary during this period describes this incident in his memoirs. He mentions the half-an-akçe daily raise and then gives the new three-month salary in terms of gold ducats. Since the debasements were accompanied by almost instantaneous depreciation of the akçe against the gold ducat, his account reflects the sensitivity of the janissaries along with other segments of urban society to the declining purchasing power of the akçe. Even though the akçe was the unit of account, the gold ducat with its unchanging standards was accepted and used as the monetary standard when the akçe began to fluctuate. K. Mihailovic, *Memoirs of a Janissary*, trans. by B. Stolz, historical commentary and notes by S. Soucek (Ann Arbor, MI: Michigan Slavic Publications, University of Michigan, 1975), 71–73.

⁴¹ This daily salary for the year 1524 is taken from the payroll books (*mevacib defterleri*) of the janissaries as part of an ongoing project on prices and wages in Istanbul; see BOA, MM 50108/9390 dated 931 H, also see MM 23.

centralization drive and the growing power of the sultan. The janissaries as well as the dissatisfied factions within the bureaucracy and the ulema were reluctant to challenge him under those circumstances.

Nonetheless, it is clear that the sultan's harsh fiscal measures and strong interventionism met with strong discontent if not opposition amongst various segments of society, the ulema, the rural warriors and landowners in the provinces. The confiscation of some of the *mülk* and *vakıf* lands and their conversion into state property was an especially severe act of fiscalism which resulted in widespread resentment.

In the longer term, the opposition of the janissaries and other groups to the policy of periodic debasements contributed to the stability of the akçe. After the death of Mehmed II, his son Bayezid II was forced to reconcile with and seek the support of precisely those groups that his father alienated during his long and forceful reign. Obtaining their support was particularly important for the new sultan especially since the Venetians held captive sultan Cem, Mehmed's other son. In addition to returning the assets of some of the pious foundations and lands expropriated by his father, he promised to end the policy of debasements. During the following century, the akçe returned to the stability it had enjoyed before the reign of Mehmed II. From 1481 until 1585, its weight and silver content remained unchanged except for the relatively small debasement of 7 percent undertaken in 1566.⁴²

⁴² See table 8.2.

The emerging monetary system

The gold sultani: an “international” coin

If centralization and interventionism were two key features of the long reign of Mehmed II, another was the ultimately successful drive to establish a large empire in the eastern Mediterranean. After the conquest of Constantinople and the incorporation of new territories including Bosnia in the west, Crimea in the north, and large parts of Anatolia in the east, the Ottomans began to see themselves as the rulers of a universal empire and heirs to both the Roman and the Islamic traditions.¹

Promoting trade and gaining control over trade routes, both overland and maritime, was an important part of the Ottoman strategy across the eastern Mediterranean. Long-distance trade was important both for increasing the availability of goods in the local markets and for raising tax revenue. The Ottoman naval build-up in the Aegean and the Adriatic was thus designed to serve both military and commercial purposes. The Ottomans also supported the flourishing trade across the Black Sea and across Anatolia to and from Persia.² It was inevitable that this drive would come into conflict with Venice which held hegemonic position in maritime trade in the eastern Mediterranean. An Ottoman–Venetian war that began in 1463 was not fully settled until 1479.³

¹ H. İnalcık, “The rise of the Ottoman Empire,” in P. M. Holt, A. K. S. Lambton, and B. Lewis (eds.), *The Cambridge History of Islam* (Cambridge University Press, 1970), vol. IA, 295–300.

² H. İnalcık, “Bursa and the Commerce of the Levant,” *Journal of the Economic and Social History of the Levant* 3 (1960), 131–47; and H. İnalcık, *The Ottoman Empire, the Classical Age, 1300–1600* (London: Weidenfeld and Nicolson, 1973), 121–26. Ottoman efforts to gain control over the trade routes in the eastern Mediterranean gained momentum during the reign of Bayezid II (1481–1512); see P. Brummett, *Ottoman Seapower and Levantine Diplomacy in the Age of Discovery* (Albany, NY: State University of New York Press, 1994), 131–174; also H. İnalcık, “Trade,” in H. İnalcık and D. Quataert (eds.), *An Economic and Social History of the Ottoman Empire, 1300–1914* (Cambridge University Press, 1994), 188–314.

³ S. J. Shaw, *History of the Ottoman Empire and Modern Turkey*, vol. I: 1280–1808 (Cambridge University Press, 1976), 62–69.

One important instrument in promoting and gaining control over long-distance trade was the means of payment. During its first 150 years, the silver *akçe* had served the Ottoman economy and the state as a means of exchange and payment primarily in local transactions. With the territorial expansion and imperial claims, however, it became necessary to issue a means of payment recognized across the eastern Mediterranean. For this, the Ottomans turned to gold.

After centuries of reliance on silver alone during the Middle Ages, European states had begun to issue gold coins in the second half of the thirteenth century. The Italian states, more commercialized and influential in long-distance trade led the way. The gold florins of Florence that began to be minted in 1252 and the Venetian ducat, sequin or *zecchino*, that appeared with the same standards in 1284, became the leading European coins in the Levant around 1350. By the middle of the fifteenth century, if not earlier, the ducat had established its superiority not only in the Levant but also elsewhere in the Mediterranean and much of Europe as the leading form of payment in long-distance trade.⁴

In response, many states in Europe from Spain to Hungary decided to adopt the standards of the florin and the ducat for their own gold coinage.⁵ In the Near East, the Mamluks began to mint a gold coin called *ashrafi* with the same standards in 1425, which successfully replaced the ducat as the principal gold currency in Egypt until the Ottoman conquest in 1517.⁶ In addition, imitations of the ducat appeared at many locations in western Europe and the eastern Mediterranean.⁷

There are numerous references to the circulation of Turkish gold ducats and florins in southern and eastern European sources from Italy, to Wallachia, Moldavia, Ukraine, and elsewhere along the Black Sea coast beginning as early as 1425. While these pieces may have been ducats or florins minted by the Ottomans, it is also possible that in these early instances, the Europeans, misled by the inscription in Arabic, mistook the Egyptian *ashrafis* as Ottoman coins.⁸ In any case, there is no doubt that the

⁴ P. Spufford, *Money and its Use in Medieval Europe* (Cambridge University Press, 1988), 176–83 and 283–86; C. M. Cipolla, *Money, Prices and Civilization in the Mediterranean World, Fifth to Seventeenth Century* (Princeton University Press, 1956), 20–26.

⁵ Spufford, *Money and its Use*, pp. 406–408; and P. Spufford, *Handbook of Medieval Exchange* (London: Royal Historical Society, 1986).

⁶ J. L. Bacharach, “The Dinar versus the Ducat,” *International Journal of Middle Eastern Studies* 4 (1973), 77–96.

⁷ H. E. Ives and P. Grierson, *The Venetian Gold Ducat and its Imitations* (New York, NY: The American Numismatic Society, 1954).

⁸ N. Beldiceanu and I. Beldiceanu-Steinherr, “Les Informations les plus Anciennes sur les Florins Ottomans,” *A Festschrift presented to Ibrahim Artuk on the Occasion of the Twentieth Anniversary of the Turkish Numismatic Society* (Istanbul: Turkish Numismatic Society, 1988), 49–58; F. Babinger, “Zur Frage der Osmanischen Goldprägungen im 15. Jahrhundert unter Murad II. und Mehmed II.,” *Südost-Forschungen* 15 (1956), 550–53; H. Sahillioğlu, “Kuruştañ XVII. Asrın Sonlarına Kadar Osmanlı Para Tarihi,” 106–110.

Ottomans began to produce Venetian ducats in their own mints in Istanbul, Edirne, and Serez in Macedonia some time after the conquest of Istanbul. The government auctioned off the rights to these mints separately from those producing akçes.⁹ A *kanunname* of Mehmed II dated to sometime after 1456 provides detailed instructions for the management of these mints including the standards for the minting of *frenji flori*.¹⁰ The Ottoman government probably had a number of aims. Adding to the circulation of a popular coin is one obvious explanation. In addition, the government benefited from the mint charges even though the standards of the Ottoman ducats matched those produced by Venice. The auction prices paid by private entrepreneurs to the Ottoman government for the management of the *frenji flori* mints clearly indicate that this was a profitable activity.¹¹ By minting their own versions, the government may have also been trying to drive the substandard ducats out of circulation.

The first Ottoman gold pieces called *sultani* or *hasene-i sultaniye* began to be minted in Istanbul in 882 H 1477–78 with the inscriptions: “Sultan Mehmed son of Murad, Lord, May his victory be glorious; struck in Kostantaniye, year 882”; and on the reverse: “Striker of the glittering, Master of might and victorious of land and sea.” For the reverse “Sultan of the two lands, and Lord of the two seas, the Sultan son of the Sultan” was also used beginning with the reign of Bayezid II (1481–1512) and these continued until the end of the seventeenth century.¹² (See figure 7.) For weight and fineness, the standards of the Venetian ducat were adopted for the new coin following the practices of other states around the Mediterranean.¹³ The *sultani* and subsequent Ottoman gold coins did not have face values until the nineteenth century. These values, expressed in terms of the silver akçes, were determined by the markets. The government also announced the official rates at which the *sultani* was accepted as payment by the state. These were usually quite close or identical to the market rates until the second half of the sixteenth century.¹⁴

⁹ H. Sahillioğlu, “Bir Mültezim Zimem Defteri,” 178–80.

¹⁰ The precise date of this *kanunname* is not known. See N. Beldiceanu, *Les Actes des Premiers Sultans Conservés dans les Manuscrits Turcs de la Bibliothèque Nationale à Paris*, I: *Actes de Mehmed II et Bayezid II* (Paris-La Haye: Mouton and Co, 1960), 65–66; and A. Akgündüz, *Osmanlı Kanunnameleri ve Hukuki Tahlilleri* (Istanbul: Fey Vakfı, 1990–94), vol. I, 441–42.

¹¹ Sahillioğlu, “Bir Mültezim Zimem Defteri,” 178–80.

¹² Schaendlinger, *Osmanische Numismatik* (Braunschweig: Klinkhardt and Biermann, 1973), 92; N. Pere, *Osmanlılarda Madeni Paralar* (Istanbul: Doğan Kardeş Matbaacılık, 1968), 90–177.

¹³ In the Ottoman *kanunnames* of this period, the mints were instructed to strike 129 *sultani* pieces from 100 *mithkal* of pure gold. The *mithkal* here refers to the Ilkhanid measure weighing one and a half dirhams of Tebriz or 4.61 grams. Sahillioğlu, “Bir Asırlık Osmanlı Para Tarihi,” 110.

¹⁴ See table 4.1 for these exchange rates.

There is a certain degree of irony in the Ottoman adoption of the standards of the ducat for their gold coins. Venice, after all, was the power with which the Ottomans struggled for the hegemony of the eastern Mediterranean. At the same time, however, the Ottomans pragmatically recognized that the standards of the ducat had become the internationally recognized standard in long-distance trade in the Mediterranean and beyond. A gold coin with different standards did not have a chance to survive.

Direct evidence on mint output is not available but sources indicate that the production of sultanis was not large until the second quarter of the sixteenth century.¹⁵ Initially, sultanis were minted mostly in Istanbul and Seres. During the reign of Selim I (1512–20), they began to be minted in new locations in eastern Anatolia, Syria, and Egypt. The volume of sultani production increased sharply during the reign of Süleyman I (1520–66) with the gold-mining sites in the Balkans, at Sidrekapsi and Karatova in addition to those of Istanbul and Cairo, emerging as the leading locations.¹⁶ There is no doubt that the conquest of Egypt and the arrival of annual payments from Egypt to the Istanbul treasury in gold greatly increased the sultani output.¹⁷

The standards of the sultani remained fixed and it exchanged at par against the ducat for most of the sixteenth century. The exchange rate between the two coins began to change in favor of the ducat early in the seventeenth century, however. This was probably due to the decline in the quality of the Ottoman coin although the instability of the akçe may have caused a decline in confidence in Ottoman gold coins as well.¹⁸ (See table 4.2.)

Foreign coins

As was the case with most other contemporary states, Ottoman governments allowed and even encouraged the circulation of foreign coinage from

¹⁵ Sahillioğlu, “Bir Mültezim Zimem Defteri” provides indirect evidence from the prices of auction for the management of the mints producing gold as well as silver and copper coinage. The numbers of the mints for which this evidence is available is limited, however.

¹⁶ For Ottoman gold coins and the locations of mints in the fifteenth and sixteenth century, also see R. Kocaer, *Osmanlı Altın Paraları* (Istanbul: Güzel Sanatlar Matbaası, 1967); K. M. Mackenzie, “Gold coins of Suleyman the Magnificent from the Mint at Sidre Qapsi,” *Nomismatika Chronika* 10 (1991), 71–80; Schaendlinger, *Osmanische Numismatik*, 91–108. For Ottoman gold mines, see H. Sahillioğlu, “Altın,” *İslam Ansiklopedisi* vol. II (Istanbul: Türkiye Diyanet Vakfı, 1989), 532–36; also chapter 2, pp. 36–38.

¹⁷ S. J. Shaw, *The Financial and Administrative Development of Ottoman Egypt, 1517–1798* (Princeton University Press, 1962), chapter 6.

¹⁸ The precise specie content of Ottoman gold coins has not been studied. Spectroscopic studies on the existing specimens will resolve this and other similar issues in Ottoman monetary history. For the exchange rates of the sultani and the ducat in the seventeenth century, see tables 8.2 and 8.3.

Table 4.1. *The silver akçe and the gold sultani, 1477–1582*

Years	Akçes per 100 dirhams	Akçe in grams	Sultani in grams	Exchange rate akçe/sultani	Calculated gold:silver ratio
1477	400	0.77	3.572	45–46	8.8
1481	410	0.75	3.572	47	8.9
1491	420	0.73	3.572	52	9.6
1500	420	0.73	3.572	54	10.0
1512	420	0.73	3.572	55	10.2
1526	420	0.73	3.544	59	10.9
1532	420	0.73	3.544	60	11.2
1540	420	0.73	3.544	60	11.2
1550	420	0.73	3.544	60	11.2
1566	450	0.68	3.517	60 (official)	
				65–70 (market)	11.8
1582	450	0.68	3.517	60 (official)	
				65–70 (market)	11.8

Notes

1 See the notes to table 3.1.

2 The sultani was initially minted at 129 per 100 mithkals of Tebriz (4.608 grams) of gold (1 mithkal of Tebriz equaled 1.5 dirhams of Tebriz). It was reduced in weight twice, first in 1526 to 130 per 100 mithkals and then in 1564 to 131 per 100 mithkals. Its fineness remained unchanged at 0.997.

3 The market as well as the official exchange rates of the sultani remained at par against the ducat during this period.

4 While the official rate remained fixed at 60, the market rates of the sultani and the ducat continued to rise during the second half of the sixteenth century. As should be expected from the prevailing west–east differentials in the gold:silver ratio, the differences between the official and the market rates was greater in the western provinces. Gold coins were more expensive in the Balkans and silver was more valuable in the eastern parts of the Empire.

5 In view of the quality of the available data, the gold:silver ratios calculated here should be taken as approximations. These ratios serve the additional purpose of providing an indirect check on the other figures. The average gold:silver ratio in Europe declined from 11.3 in 1470 to 10.6 in 1520 and then increased to 11.7 by 1580. F. Braudel and F. Spooner, “Prices in Europe from 1450 to 1750,” in E. E. Rich and C. H. Wilson (eds.), *The Cambridge Economic History of Europe* (Cambridge University Press, 1967), vol. IV, 459.

Sources

Author’s calculations based on H. Sahillioğlu, “Kuruluşta XVII. Asrın Sonlarına Kadar Osmanlı Para Tarihi,” 1–58, “Bir Asırlık Osmanlı Para Tarihi,” 1–17 and “The Role of International Monetary and Metal Movements in Ottoman Monetary History,” in J. F. Richards (ed.), *Precious Metals in the Later Medieval and Early Modern Worlds* (Durham, NC: Carolina Academic Press, 1983); J. Sultan, *Coins of the Ottoman Empire and the Turkish Republic*; N. Aykut, “Osmanlı İmparatorluğu’nda Sikke Tecdidleri,” *İstanbul Üniversitesi Edebiyat Fakültesi Tarih Enstitüsü Dergisi* 13 (1987), 257–97; İsmail Galib, *Takvim-i Meskukat-ı Osmaniye*; Halil Edhem, *Meskukat-ı Osmaniye*; Ahmet Refik, “Osmanlı İmparatorluğu’nda Meskukat”.

Table 4.2. *The exchange rates of other coins expressed in akçes, 1477–1582*

Years	Venetian ducat (gold)	Egyptian ashrafi (gold)	Hungarian (engurissiyye) (gold)	Spanish eight real (silver)	Dutch lion thaler (silver)
1479	45–46	42–43	42–43		
1481	47	45	45		
1491	52	50	50		
1500	54	52	52		
1512	55	50–55	53	40	35
1526	57		53		
1532	57		52		
1540	60		55		
1550	60		57		
1566	60		57		
1582	60 (official) 65–70 (market)		57 (official)	40–50	40–45

Notes:

1 The standards of the Venetian ducat remained unchanged until the end of the eighteenth century. The ducat and the Ottoman sultani exchanged at par during this period.

2 For more information on the Spanish real and the Dutch lion thaler, see chapter 8 and table 8.3.

Sources

Sahillioğlu, “Osmanlı Para Tarihi,” 140–64; and “Role of International Monetary Movements.”

the earliest days. The primary reason for welcoming foreign coinage was to add to the amount of specie in circulation in local markets. Foreign coinage also helped support long-distance trade which was important for the Ottoman government both for fiscal and provisioning reasons. Until the rise of sultani in the sixteenth century, the leading foreign coins were also the leading means of payment in long-distance trade throughout Ottoman lands.

For the fifteenth and the sixteenth centuries quantitative information is available from a variety of sources on the relative importance of the different types of foreign coinage. The inheritance inventories or *tereke defterleri* containing the assets and belongings of deceased individuals are available from the court records of many Ottoman towns.¹⁹ These inventories usually listed the types of coinage found amongst the assets of the deceased. This evidence needs to be used with caution, however. Individuals

¹⁹ Use of the qualifier, “inheritance” is more appropriate for these inventories than “probate” due to the different nature of the Ottoman judiciary system. “Probate” denotes wills as the legal basis for the disposition of estates, which are not recognized in Islamic law. In anthropological terms, “inheritance” denotes the transmission of rights to property which is distinguished from “succession” or the transmission of offices or roles. I am indebted to Joyce H. Matthews for this distinction.

Table 4.3. *Coinage found in the inheritance inventories (tereke) of Bursa, 1462–1513*

	1462–88	1497–1513
Number of terekes examined	1009	1491
Terekes with coins (percent)	34.0	25.9
Terekes with silver coins, mostly akçes (percent)	32.7	23.0
Share of silver coins in total cash (percent by value)	79.2	45.9
Terekes with gold coins (percent)	4.9	8.1
Share of gold coins in total cash (percent by value)	20.8	54.1
Share of sultanis in gold coins (percent)	0.1	2.4
Share of ducats in gold coins (percent)	39.6	44.8
Share of Egyptian gold coins (percent)	60.3	52.8

Notes

For the exchange rates of gold coins, see tables 4.1 and 4.2.

Sources

Sahillioğlu, “Osmanlı Para Tarihi Üzerine Bir Deneme,” 142–43; also see H. Özdeğer, *1463–1640 Yılları Bursa Şehri Tereke Defterleri* (İstanbul Üniversitesi İktisat Fakültesi Yayınları, 1988), 119–244.

tended to store part of their wealth primarily in the form of gold coins and much less in silver akçes. For this reason, the relative frequencies observed for different types of coinage in the *tereke defterleri* do not necessarily give a good indication of their importance as a means of daily exchange. (See table 4.3) Another source of information with similar biases is the documents available from archival sources, summarizing the results of the periodic inventories of the Ottoman treasury.²⁰

These sources show that the Venetian ducat also known as *efrenciye* and *flori* and the Egyptian ashrafi or *eşrefiye* which remained in circulation until the first quarter of the sixteenth century were the most important of the foreign gold coins in circulation in Ottoman lands during the fifteenth and sixteenth centuries. Also available but less significant was the Hungarian gold piece known as *engürüsiye* and the gold florin of Florence which remained important until the middle of the fifteenth century.²¹ (See figures 8 and 9.) Various imitations of the Venetian ducat minted in the eastern Mediterranean were also observed in the state treasury. Because of their inferior quality, however, these exchanged at a discount of about 5 percent against the ducat. In all of the inventories, the sultani rose in relative

²⁰ For example, see Sahillioğlu, “Osmanlı Para Tarihi,” 106–9.

²¹ The Hungarian gold pieces were minted with gold from the mines in Hungary which had been the principal source of gold for most of Europe since the thirteenth century. They were produced primarily for use outside the country and as straightforward imitations of the Florentine florin. In time, their appearance changed but their weight and fineness remained the same as those of the Italian coins. Spufford, *Money and its Use*, 320.

importance after the first quarter of the sixteenth century.²² (For exchange rates of these gold coins, see tables 3.1 and 4.2.)

European silver coins were not prominent in Ottoman markets until the second half of the sixteenth century when large silver coins minted mostly with American silver and known as groschen began to arrive from western Europe. The only exception was the *gigliatti* of the Italian city states which circulated in western Anatolia during the first half of the fourteenth century, before the arrival of the European gold coins.²³

Gold–silver–copper

By the first quarter of the sixteenth century three distinct levels had emerged in the Ottoman monetary system, each level characterized by a different economic function and a different type of coin. At the top were the gold coins used, most importantly, by merchants in making large payments, both internally and in international trade.²⁴ Financiers, moneychangers, high level government officials, and to some extent, owners of medium- and large-scale manufacturing establishments also used gold coins. Larger landholders in the more commercialized villages of Anatolia and the Balkans, as well as the sipahis who collected a variety of taxes both in money and in kind from the rural population, were also well acquainted with gold coinage.²⁵

The functions of gold coins were not limited to a means of exchange. As units of account for expressing large magnitudes, the sultani and the ducat were almost used interchangeably. They were often referred to simply as gold pieces. In addition, gold coins were regularly used as a store of wealth, as evidenced by the *tereke*s of the deceased summarized in table 4.3. The *tereke*s of government employees or members of the *askeri* class at Edirne and Istanbul from the second half of the sixteenth century as well as those of Bursa show that it was not unusual for wealthier members of this class to hold hundreds or even thousands of gold pieces.²⁶

²² Sahillioğlu, “Osmanlı Para Tarihi,” 108–109 and 141–42; and Sahillioğlu, “The Role of International Monetary Movements,” 269–304, appendix tables. For the inferior imitations of the ducat, see P. Grierson and H. E. Ives, *The Venetian Gold Ducat and its Imitations* (New York, NY: The American Numismatic Society, 1954).

²³ Spufford, *Money and its Use*, 283–6.

²⁴ For the use of gold coins in long-distance trade, see İnalçık, “Bursa”; and H. İnalçık, “Osmanlı İdare, Sosyal ve Ekonomik Tarihiyle İlgili Belgeler: Bursa Kadı Sicillerinden Seçmeler,” *Türk Tarih Kurumu, Belgeler* 10–14 (1981), 1–91; for the use of gold coins in intercontinental trade during the fifteenth and sixteenth centuries, see V. M. Godinho, *L'Économie de l'Empire Portugais aux XV^e et XVI^e Siècles* (Paris: S.E.V.P.E.N., 1969); and Spufford, *Money and its Use*.

²⁵ For example, İnalçık, “Osmanlı İdare”; and H. İnalçık, *The Middle East and the Balkans under the Ottoman Empire, Essays on Economy and Society* (Bloomington, IN: Indiana University Turkish Studies and Turkish Ministry of Culture Joint Series, 1993); and B. W. McGowan, *Sirem Sancağı Mufassal Tahrir Defteri* (Ankara: Türk Tarih Kurumu, 1983).

²⁶ Ö. L. Barkan, “Edirne Askeri Kassamı'na ait Tereke Defterleri (1546–1659),” *Türk Tarih*

Gold coins were also used for making large political and administrative payments including tribute and even ransom payments. When John the Fearless was taken captive by the Ottomans at the battle of Nicopolis in 1396, his ransom payment was fixed at 200,000 florins. It was probably paid in florins and ducats.²⁷ In the sixteenth century, the annual remittance from Egypt to Istanbul was 400,000 to 500,000 gold pieces which the central government demanded in gold. After the decline of Ottoman control over Egypt and the increasing difficulties of finding gold during the seventeenth century, this sum was sent mostly in the form of silver coins.²⁸

The value and the purchasing power of the gold pieces was too large, however, for the vast majority of the people, peasants, nomads, and most urban residents who never used it. The daily wage of an unskilled construction worker in Istanbul for most of the sixteenth century, for example, was five to six *akçes*, or one tenth of a gold piece. A master mason or carpenter was paid ten or at most twelve *akçes* or about one fifth of a gold piece per day.²⁹ Similarly, the official price-control lists (*narh*) prepared in 1525 for the city of Istanbul required that 500 dirhams (1.5 kg) of bread and 200 dirhams (0.6 kg) of lamb meat sell for one *akçe* when 59 *akçes* exchanged for one gold piece.³⁰ The magnitudes of most daily transactions were well below those of gold coins.

The silver *akçe*, which for most of the sixteenth century was a small coin minted from approximately 0.7 grams of pure silver, was the center piece of the Ottoman monetary economy. Until the last quarter of the sixteenth century the purchasing power of the *akçe* was small enough to make it useful for small daily transactions but not large enough to make it convenient for medium-sized transactions. The *akçe* was also the leading unit of account in Anatolia and the Balkans. In addition to all of the small and medium-sized magnitudes, many of the larger monetary magnitudes were also expressed in *akçes*. The inheritance inventories, for example, cited overall personal wealth in terms of *akçes*, sometimes in tens of thousands of *akçes*. In the imperial budgets, revenues and expenditures were expressed in hundreds of millions of *akçes*.³¹

The role of the *akçe* as the basic unit of account of the Empire is confirmed by the provincial law codes issued, for the most part, during the

Kurumu, Belgeler 3 (1966), 31–46; and S. Öztürk, *Askeri Kassama ait Onyedinci Asır İstanbul Tereke Defterleri* (Istanbul: Osmanlı Araştırmaları Vakfı Yayınları, 1995).

²⁷ See chapter 2, p. 25. ²⁸ See chapter 6, pp. 98–99.

²⁹ The wage observations were obtained from the Ottoman archives as part of a related study on long-term trends in Ottoman wages and prices.

³⁰ Sahillioğlu, "Osmanlılarda Narh Müessesesi ve 1525 Yılı Sonunda İstanbul'da Fiyatlar," *Belgelerle Türk Tarihi Dergisi* 1 (1968), 36–40, 2 (1968), 54–56, and 3 (1968), 50–53.

³¹ For published examples of inheritance inventories, see sources cited in table 4.3 and Öztürk, *Askeri Kassam*. For an imperial budget, see Ö. L. Barkan, "H. 954–55 (M. 1547–48) Mali Yılına ait bir Osmanlı Bütçesi," *İstanbul Üniversitesi İktisat Fakültesi Mecmuası* 18 (1957–58), 219–76.

sixteenth century.³² In these documents, the Ottoman government expressed almost all of the dues and taxes, small and large, to be collected from the populace in terms of the akçe, even in areas such as Hungary, Bagdad or Basra where the akçe did not circulate in significant quantities. Actual payments were then made with other coinage at the prevailing official rates of exchange.³³ In cases where references were made to pre-Ottoman monetary magnitudes or tax obligations, the law codes converted them to akçes. For example, Ottoman law codes for the Balkans and Hungary made frequent references to earlier dues to be paid in gold as *resm-i flori* and then converted them to dues in akçes.³⁴ In the longer term, however, this preference for the akçe had serious consequences for the Ottoman treasury, because the purchasing power of the akçe declined by more than 80 percent during the sixteenth and early part of the seventeenth century.³⁵

At the bottom of the Ottoman monetary hierarchy was the copper coinage, which exchanged not at or close to its intrinsic values, but at nominal values fixed by the state in fractions of the akçe. These fractions varied from one region to another, most commonly, at one fourth or one eighth of an akçe.³⁶ The mangır was quite useful and minted in large quantities until the second half of the sixteenth century. When an *okka* (1.28 kilograms) of bread cost one akçe, the fractions of the akçe still made economic sense. After the debasement of 1585–86 when Ottoman prices more than doubled, fractions of the akçe simply became too low to remain useful in most daily transactions. To rescue the copper coinage, it was necessary to raise their nominal values but this step was not taken.³⁷

In a system with gold and silver, allowing copper coins to circulate at or close to their intrinsic values created too many problems. Carlo Cipolla has already identified this “big problem of the petty coins”: if the petty coinage circulated at close to its intrinsic values, the danger was that as the relative

³² Ö. L. Barkan, *Zirai Ekonominin Mali ve Hukuki Temelleri, Kanunnameler, Cilt 1* (Istanbul, 1942); and Akgündüz, *Osmanlı Kanunnameleri*.

³³ One rare exception is available from the law code for Jerusalem where the dues to be collected from the visitors are expressed in Kayıtbay gold pieces even though the actual payments could be made in any coin. Kayıtbay was a fifteenth-century Mamluk sultan. Barkan, *Zirai Ekonomi*, 219.

³⁴ For *resm-i flori*, also see H. İnalcık, “Filori,” *Encyclopedia of Islam*, second edition (Leiden and New York, NY: E. J. Brill, 1964); and M. Berindei and G. Veinstein, *L’Empire Ottoman et les Pays Roumains 1544–1545, Etudes et Documents* (Paris and Cambridge, MA: Editions de l’Ecole des Hautes Etudes en Sciences Sociales and Harvard Ukrainian Research Institute, 1982), 315–16. For very small magnitudes, the law codes also cited copper coinage, but only occasionally.

³⁵ See chapter 7, pp. 118–125; and graph 7.1 for the extent of price increases during this period.

³⁶ C. Ölçer, *The Ornamental Copper Coinage of the Ottoman Empire* (Istanbul: Yenilik Basımevi, 1975), 9–20; and H. Sahillioğlu, “Fatih’in Son Yıllarında Bakır Para Basılması ve Dağıtılması ile İlgili Belgeler,” *Belgelerle Türk Tarihi Dergisi* 6 (1968), 72–75; also chapter 2, pp. 38–39.

³⁷ Copper coinage was not minted during most of the seventeenth century. For monetary problems associated with the absence of small change during this period, see chapter 9.

values of metals fluctuated in relation to each other, it would be impossible to attach a fixed value to the petty coinage; or that the authorities would be forced to change the values periodically in response to these fluctuations, or that either copper coinage or silver and gold coins would disappear from circulation. Alternatively, only by maintaining such petty coinage with nominal values, was it possible to maintain the stability of full-bodied coins, silver and gold.³⁸ It was essential to regulate the volume of copper coinage and not to strike more petty coins than were needed for petty business.³⁹ The Ottoman government tried to ensure this by selling the monopoly of supplying the copper coinage of a region to a single person, thereby creating a monopoly for a fixed period of as much as three years. The government also limited the convertibility of copper coinage to full-bodied coins by not accepting the former for tax payments.⁴⁰

There was, however, one serious problem with the Ottoman hierarchy of coins. For such a system of gold, silver, and copper coinage to cover the entire spectrum of payments, it was necessary for certain proportions to exist between the denominations of different metals. Given that the gold:silver ratios ranged between 10 and 16 during the Early Modern period, most states in the Old World chose to mint medium- and large-sized silver coins in order to facilitate the bulk of economic transactions that were too small for gold but too large for copper. For this purpose, coins carrying 3 to 6 grams of silver began to emerge in Europe in the fourteenth and fifteenth centuries. Medium-sized silver coins were also in use in Iran and India. During the sixteenth century, price increases and the increasing availability of specie accelerated this trend. Even larger silver coins called *testoons*, weighing 7 to 9 grams, and eventually thalers or crowns weighing 25 to 30 grams were minted in Europe. Beginning in the fifteenth century and especially during the sixteenth century, these larger coins, which were worth anywhere from one quarter to two thirds of a gold ducat, succeeded in reducing the pressure on the gold pieces and occupied the central place in the monetary system of these countries. In some instances, they even paved the way for the minting of double ducats thereby increasing the range of the hierarchy of coinage.⁴¹

In the Ottoman monetary hierarchy this middle ground was not ade-

³⁸ C. M. Cipolla, *Money, Prices, and Civilization in the Mediterranean World, Fifth to Seventeenth Century* (Princeton University Press, 1956), 27–37; also J. H. Munro, “Deflation and the Petty Coinage Problem in the Late-Medieval Economy: the Case of Flanders, 1334–1484,” *Explorations in Economic History* 25 (1988), 387–423.

³⁹ Cipolla, *Money, Prices and Civilization*, 30.

⁴⁰ See chapter 2, pp. 38–39.

⁴¹ P. Grierson, “The Monetary Pattern of Sixteenth-Century Coinage,” *Transactions of the Royal Historical Society*, Fifth Series 21 (1971), 45–60; Spufford, *Money and its Use*, 363–77; F. Braudel, *The Mediterranean and the Mediterranean World in the Age of Philip II*, 2 vols. (London: William Collins and Sons, 1972), vol. I, 462–542; and F. C. Spooner, *The International Economy and Monetary Movements in France* (Cambridge, MA: Harvard University Press, 1972), 7ff.

quately covered during the fifteenth and sixteenth centuries. The sultani remained too large and the akçe too small for the bulk of daily transactions. The large gap between them widened as the exchange rate of the gold sultani edged up from 45 to 60 and even 65 akçes during the sixteenth century.⁴² In the absence of gold coinage or whenever it was not available in sufficient quantities, larger payments had to be made with piles of akçes. As a result, there was considerable pressure on the sultani and the ducat.

The Ottoman government actually minted larger silver coins but these remained exceptional. The earliest examples of multiple-akçe pieces go back to the middle of the fourteenth century, when Orhan I (1324–62) minted five-akçe coins. More than a century later, ten-akçe pieces were minted during the reigns of Mehmed II and Bayezid II.⁴³ However, the fact that these coins and several other examples in the sixteenth century were minted only at a few locations and at specific dates suggests that their volume remained limited.⁴⁴ (See figure 4.)

Ten-akçe pieces were minted more frequently during the early part of the seventeenth century.⁴⁵ By this time, the proportions between the sultani and the akçe had become even more skewed due to the debasements of the latter. The exchange rate of the sultani varied, for the most part, between 120 to 160 akçes during this period. As a result, the need for an intermediate level coin had become even more acute. In addition, a five-akçe piece began to be minted during the reign of Murad IV (1623–40) only in Istanbul and it was continued under sultan Ibrahim (1640–48).⁴⁶ The large silver coins of the early seventeenth century were undermined by the instability of the akçe, however. When the silver content of the one-akçe piece deteriorated, the larger coins tended to disappear from circulation.⁴⁷ In short, an intermediate-level, medium-sized silver coin was never established as a permanent addition to the Ottoman hierarchy.

Bimetallism or silver monometallism?

In the Ottoman monetary system, the silver akçe was the basic unit of account and the leading means of payment in local transactions. Its silver content changed with the occasional debasements of the government. In

⁴² See table 4.1.

⁴³ In 875 H and 886 H at Istanbul, Novaberda, and Serez. See Schaendlinger, *Osmanische Numismatik*, 92–94.

⁴⁴ *Ibid.*, 96–104.

⁴⁵ *Ibid.*, 108–112. For the exchange rates of the sultani in the seventeenth century, see tables 8.2 and 8.3.

⁴⁶ S. Album, *A Checklist of Islamic Coins*, second edition (Santa Rosa, CA: S. Album, 1998), 66.

⁴⁷ The exchange rate tables prepared by H. Sahillioğlu, “XVII. Asrın İlk Yarısında İstanbul’da Tedavüldeki Sikkelerin Raici,” *Türk Tarih Kurumu, Belgeler* 1/2 (1965), 227–34 show that the 10-akçe piece exchanged for 12 akçes before disappearing.

contrast, the standards of the sultani remained identical to those of the Venetian ducat and the gold coins of most other states around the Mediterranean. Its exchange rate, expressed in akçe was determined by the markets, subject to the changes in the silver content of the akçe, fluctuations in the gold:silver ratio, and a host of other factors. There did not exist a fixed gold:silver ratio around which the face value or the standards of both type of coins would be determined. A network of provincial mints supervised closely by the central government were kept open for the coinage of both silver and gold, subject to seigniorage payments to the state.

This monetary regime might loosely be called bimetallic since both gold and silver coins were minted and circulated freely. One should be careful, however, about the use of this term and should distinguish it from classical bimetalism as practiced during the nineteenth century. Under the latter system, a country typically adopted both gold and silver as monetary standards. The relative amounts of the two metals necessary to create the same currency unit, known as the mint ratio or the legal ratio, was specified by the authorities. In other words, the face value of both gold and silver coins were fixed by the government.⁴⁸

In searching for a label for the Ottoman monetary regime, it is actually more useful to adopt the more strict definitions of monometallism and bimetalism used in the nineteenth century. According to these definitions, a monetary regime is characterized as monometallism if there is one standard commodity in terms of which the value of other commodities are measured even if the circulation may include several metallic and paper elements. The Ottoman regime outlined above certainly fits this definition. The silver akçe was the basic unit of account in terms of which the value of all other commodities including the gold sultani and the copper mangır was being measured.⁴⁹

The basic virtue of the Ottoman system was its flexibility. As long as the markets determined the exchange rate of the gold coins and if the official rates at which the government accepted these coins followed the markets closely, neither type of coin was likely to be over- or undervalued. For this reason, they were not in danger of disappearing.

The Ottoman government adhered to this framework, with some excep-

⁴⁸ H. Reed, "Bimetalism and monometallism," *Encyclopedia of Social Sciences*, first edition, 1930, vol. 2, 546–49; C. P. Kindleberger, *A Financial History of Western Europe*, second edition (Oxford University Press, 1993), 57–63.

⁴⁹ In one of the rare attempts to come to terms with the nature of the Ottoman monetary regime before the nineteenth century, Haim Gerber adopted a similar definition and emphasized that despite the circulation of both gold and silver coins, "the basis of the Ottoman system was not bimetalism" (309). Gerber's study has a number of important insights about the Ottoman monetary system. Unfortunately, it is also marred by some basic errors arising from the state of our knowledge two decades ago. H. Gerber, "The monetary system of the Ottoman Empire," *Journal of the Economic and Social History of the Orient*, 25 (1982), 308–24.

tions, until the nineteenth century. While the practices of Medieval and Early Modern states in Europe and the Near East varied in time and space, the majority pursued a flexible approach similar to that of the Ottomans. There were some exceptions, however. For example, the Venetian state occasionally tried to defend a specific gold:silver ratio and related face values for its gold coins.⁵⁰

With the notable exception of the reign of Mehmed II examined in the last chapter, the Ottoman governments pursued a policy of stable money and stayed away from debasements until the second half of the sixteenth century. Even though debasements offered short-term fiscal gains to the state, their political costs remained equally clear. Favorable fiscal conditions also supported the stability of the akçe. It is also remarkable that the government abstained from changing the standards of the gold coinage. There were two basic reasons for this. First, the sultani needed to adhere to the existing “international” standards in order to remain a means of payment in long-distance trade. Secondly, the fiscal benefits to be obtained by reducing the gold content of the sultani remained minimal since most of the government obligations were expressed in terms of the akçe.

A more general question regarding Ottoman monetary practices concerns the nature and extent of government intervention and controls. In comparison to both Islamic law and the general practice in medieval Islamic states, the Ottoman governments were more interventionist in their economic policies. They intervened in local and long-distance trade to regulate the markets and ensure the availability of goods for the military, palace, and more generally, the urban economy. Ottoman interventionism in the economy, in trade, and in local markets reached its peak during the reign of the centralizing sultan Mehmed II. The state promulgated detailed law codes (*kamunname*) covering different spheres of life during this period. Mehmed II also issued large numbers of laws to regulate mint activity, the operation of mines producing gold and silver and, perhaps most interestingly, the circulation and transportation of specie in Ottoman lands.⁵¹ In later periods, the Ottoman government continued to prohibit the exportation of silver whenever shortages of specie asserted themselves. These outflows of specie and attempts to stop them occurred mostly over the border with Iran.⁵²

There are a number of reasons why these codes present a misleading picture about Ottoman practices, especially on monetary issues. For one

⁵⁰ Spufford, *Money and its Use*, 351–55; and Cipolla, *The Monetary Policy of Fourteenth-Century Florence* (Berkeley and Los Angeles, CA: University of California Press, 1982), 63–85; also see F. C. Lane and R. C. Mueller, *Money and Banking in Venice*, vol. I: *Coins and Moneys of Account* (Baltimore, MD: Johns Hopkins University Press, 1985), 416–65 and 485–91.

⁵¹ See pp. 42–47.

⁵² Sahillioğlu, “Osmanlı Para Tarihi,” 188–201. Also see chapter 8, pp. 137–38.

thing, the reign of Mehmed II was exceptional in terms of the monetary conditions it presented. The Ottoman lands together with much of Europe faced severe shortages of specie during this period. These extraordinary conditions combined with the centralizing tendencies of the Ottoman ruler to create perhaps the most interventionist codes and practices in Ottoman history.⁵³ Many of these codes related to monetary issues were rarely if ever enforced during subsequent periods.

Secondly, interventions in the economy did not necessarily mean that the government succeeded in bringing about the desired outcomes. Pre-modern states did not have the capability to intervene in markets comprehensively and effectively. These limitations were even more apparent in the case of money markets. In comparison to goods markets and long-distance trade, it was more difficult for governments to control physical supplies of specie or coinage and regulate prices, that is, exchange and interest rates.⁵⁴ Ottoman administrators were well aware that participants in the money markets, merchants, moneychangers and financiers were able to evade state rules and regulations more easily than those in the commodity markets. Observing the mixed success of government actions, they learned that interventionism in money markets did not always produce the desired results. For this reason, government interventions in money markets became more selective after the reign of Mehmed II and occurred mostly during extraordinary periods such as extreme monetary turbulence or wars. On the whole, Ottoman monetary practices exhibited a good deal of flexibility and pragmatism after the fifteenth century.

One of the most telling examples of Ottoman flexibility concerned the determination of exchange rates between different kinds of coinage. In an environment of frequently recurring shortages of specie, the Ottoman administrators knew that it was essential to attract into the Ottoman lands and to maintain in circulation as much coinage and bullion as possible. Their monetary practices were guided more by this concern than any other. They were also aware that the ratio between gold and silver as well as the value of different types of coins was subject to fluctuations. Under these conditions, a policy of fixed exchange rates between different coins would have driven the good or undervalued coins out of circulation through the workings of Gresham's Law. Instead, the government allowed the local markets to determine not only the exchange rate of the sultani, but those for

⁵³ See chapter 3, pp. 41–43.

⁵⁴ Spufford, *Money in and its Use*, passim; G. P. Hennequin, "Points de vue sur l'Histoire Monétaire de l'Égypte Musulmane au Moyen Age," *Annales Islamologiques*, Institut Français d'Archéologie Orientale du Caire 12 (1974), 3–44; and G. P. Hennequin, "Nouveaux Aperçus sur l'Histoire Monétaire de l'Égypte au Moyen Age," *Annales Islamologiques* Institut Français d'Archéologie Orientale du Caire 12 (1974), 179–215; and S. D. Goitein, *A Mediterranean Society, the Jewish Communities of the Arab World as Portrayed in the Documents of the Cairo Geniza*, vol. I: *Economic Foundations* (Berkeley and Los Angeles, CA: University of California Press, 1967), 209–272.

all types of coins, Ottoman and foreign. Local court records show that the *kadis* relied on these market rates to settle disputes between individuals. In addition, the government announced the official rates at which different coins, gold and silver, would be accepted as payment. Usually, these rates did not diverge significantly from the prevailing market rates for the same coins.⁵⁵

Government policies towards foreign coinage provides another example of flexibility. From the earliest days, the authorities encouraged the circulation of foreign coinage and accepted them as payment. The government also exempted precious metals and foreign currency from import dues. In capitulations or privileges given to merchants of certain European states, the central government exempted them from all customs duties for the foreign coinage they brought. In addition, customs and mint officials were told not to demand that this coinage be surrendered to the authorities for the minting of Ottoman coinage. These privileges were eventually extended to the merchants of most European states during the sixteenth century.

Increasing use of money

For a long time it has been assumed that the use of money in the Balkans and Anatolia was limited to long-distance trade and parts of the urban sector.⁵⁶ Recent research has shown, however, that the urban population and some segments of the countryside were already part of the monetary economy by the end of the fifteenth century. Even more significantly, there occurred a substantial increase in the use of money during the sixteenth century, both because of the increased availability of specie and increasing commercialization of the rural economy. The evidence for this important development comes from a number of sources. First, recent research has pointed out that population growth and urbanization during the sixteenth century were accompanied by the growth of economic linkages between the urban and rural areas.⁵⁷ As a result, there emerged in the Balkans and Anatolia an intensive pattern of periodic markets and market fairs where peasants and larger landholders sold parts of their produce to urban residents. These markets also provided an important opportunity for the nomads to come into contact with both peasants and the urban population. Large sectors of the rural population came to use coinage, especially the

⁵⁵ For example, Sahillioğlu, "XVII. Asrın İlk Yarısında," 38–53; also see sources cited in table 4.1.

⁵⁶ F. Braudel, *Civilization and Capitalism, Fifteenth to Eighteenth Century*, vol. III: *The Perspective of the World* (New York, NY: Harper and Row Publishers, 1984), 471–73.

⁵⁷ Ö. L. Barkan, "Research in the Ottoman fiscal surveys," in M. A. Cook (ed.), *Studies in the Economic History of the Middle East* (Oxford University Press, 1970); and R. C. Jennings, "Urban population in Anatolia in the sixteenth century: a study of Kayseri, Karaman, Amasya, Trabzon, and Erzurum," *International Journal of Middle Eastern Studies* 7 (1976), 21–57.

small denominations of silver akçe and the copper mangır, through their participation in these markets.⁵⁸

Secondly, small-scale but intensive networks of credit relations developed in and around the urban centers of Anatolia and probably elsewhere during the same period. Evidence from thousands of court cases in these towns and cities involving lenders and borrowers leaves no doubt that the use of credit, small and large, was widespread amongst all segments of urban and parts of rural society. It is clear that neither the Islamic prohibitions against interest and usury nor the absence of formal banking institutions prevented the expansion of credit in Ottoman society during the sixteenth and seventeenth centuries, as will be discussed in the next chapter.⁵⁹

Thirdly, the provincial law codes, most of which were issued between the middle of the fifteenth and the middle of the sixteenth centuries, show very clearly that for every province the Ottoman state defined a long list of activities which were subject to taxation, issuing detailed lists of dues which applied to each item.⁶⁰ These *kanunnames* not only provide very detailed information about the extent and rate of taxation, but they also point to an economy with strong urban and rural linkages, considerable market orientation, and frequent collections of small amounts of taxes in money from artisans and merchants as well as nomads and sedentary peasants.⁶¹

Also useful in providing insights into the extent of penetration of money into the village economy are the censuses (*tahrir defterleri*) undertaken during the sixteenth century in order to assess the sources of fiscal revenue for the state.⁶² The state collected taxes from the rural population both in kind and in money terms. The most important of these were the tithe (*öşür*) which was collected in kind as some fraction of the agricultural product but also *çift resmi*, and its variations and fractions, collected every spring in cash from each household depending upon the amount of land they cultivated. In each region, the *kanunnames* also converted to akçes many of

⁵⁸ S. Faroqhi, "The early history of Balkan fairs," *Südost-Forschungen* 37 (1978), 50–68; S. Faroqhi, "Sixteenth century periodic markets in various Anatolian sancaks," *Journal of the Economic and Social History of the Orient* 22 (1979), 32–80; and S. Faroqhi, "Rural society in Anatolia and the Balkans during the sixteenth century," *Turcica* 9 (1977), 161–96, and 11 (1979), 103–53; and İnalçık, "Osmanlı İdare," 1–91. See also the studies on the rural economy by these authors that appeared in two collections: H. İnalçık, *The Middle East and the Balkans*; and S. Faroqhi, *Coping with the State, Political Conflict and Crime in the Ottoman Economy, 1550–1720* (Istanbul: The ISIS Press, 1995).

⁵⁹ See chapter 5, pp. 77–82.

⁶⁰ For compilations of these law codes see Barkan, *Zirai Ekonomi*; and more recently, Akgündüz, *Osmanlı Kanunnameleri*.

⁶¹ For the tax obligations of nomads and their participation in local markets, also see R. P. Lindner, *Nomads and Ottomans in Medieval Anatolia* (Bloomington, IN: Indiana University, Research Institute for Inner Asian Studies, 1983), 51–103.

⁶² The most detailed examples of these fiscal surveys are those of Hüdavendigâr (Bursa) in Anatolia and Sirem in the Balkans. See Ö. L. Barkan and E. Meriçli (eds.), *Hüdavendigâr Livası, Tahrir Defterleri I* (Ankara: Türk Tarih Kurumu, 1988); and McGowan, *Sirem Sancağı*.

the dues in kind and labor obligations that existed in the pre-Ottoman period. In addition, there was a long list of taxes collected in money terms both from the sedentary peasants and the nomads assessed on, for example, animals (*resm-i agnam*), beehives (*resm-i kovan*), vegetable gardens, orchards, vineyards, as well as on transactions in the local markets. Most of these taxes were defined in terms of the akçe.⁶³ (For excerpts from these law codes, see appendix I.) The *cizye* was a head-tax collected by tax-farmers from each non-Muslim household, rural and urban. Late in the fifteenth century it ranged from 40 to 80 akçes per household depending upon the region and averaged 53 akçes or about one gold piece per household for the Balkans and Anatolia as a whole.⁶⁴

Not all of these taxes were collected in money, however. Some of the taxes to be paid in cash by the peasants to the sipahi were probably collected in kind depending upon the availability of coinage and other factors. For his part, the sipahi frequently participated in local markets in order to convert to cash the revenues he collected in kind and to purchase the materials and equipment necessary for the training and preparation of the soldiers he was required to bring to the military campaigns.

The growing density of population during the sixteenth century thus increased the density of exchange not only in the urban areas but also incorporated large segments of the rural population into this process. The Balkans and Anatolia were certainly not unique in this respect. As Braudel has pointed out, the same trend toward more frequent use of markets and money by large segments of the population also prevailed in the western Mediterranean region during the sixteenth century.⁶⁵ While the developments in the western Mediterranean have drawn considerable attention from the historians, the social and cultural as well as economic implications of this trend are yet to be adequately studied in the case of the eastern Mediterranean.

⁶³ Halil İnalçık provided an analysis of these obligations of the rural population based mostly on the same provincial law codes; H. İnalçık, "Osmanlılar'da Raiyyet Rüşümü," *Belleten* 23 (1959), 575–608; for Anatolia, also see Faroqhi, "Rural society," and for studies of similar obligations in the Balkans, McGowan, *Sirem Sancağı* and H. W. Lowry Jr., "Changes in Fifteenth-Century Ottoman Peasant Taxation: a Case Study of Radilofo (Radolibos)," in A. Bryer and H. Lowry (eds.), *Continuity and Change in Late Byzantine and Early Ottoman Society* (Washington D.C.: Dumbarton Oaks, and University of Birmingham, 1986), 23–37.

⁶⁴ Ö. L. Barkan, "894 (1488/1489) Yılı Cizyesinin Tahsilatına ait Muhasebe Bilançoları," *Türk Tarih Kurumu, Belgeler* 1 (1964), 17–27.

⁶⁵ Braudel, *Mediterranean World*, vol. I, 355–461.

Credit and finance

It has often been assumed that the prohibition of interest in Islam prevented the development of credit, or at best, imposed rigid obstacles in its way. Similarly, the apparent absence of deposit banking and lending by banks has led many observers to conclude that financial institutions and instruments were, by and large, absent in Islamic societies. It is true that a religiously inspired prohibition against usurious transactions was a powerful feature shared around the Mediterranean during the Middle Ages, both by the Islamic world and Christian West.¹ While the practice of *riba*, the Arabic term for usury and interest, is sharply denounced in a number of passages in the Qur'an and in all subsequent Islamic religious writings, already in the classical era, Islamic law had provided several means by which the antiusury prohibition could be circumvented just as the same prohibitions were circumvented in Europe in the late medieval period. Various legal fictions, based primarily on the model of the "double-sale" were, if not enthusiastically endorsed by jurists, at least not declared invalid. Thus, there did not exist an insurmountable barrier against the use of interest bearing loans for commercial credit.

It is also true, however, that in the medieval Islamic world this option was not exercised. Instead, numerous other commercial techniques were used which played the same role as interest-bearing loans and thus made the use of loans unnecessary. These included a variety of business partnership forms such as *mudaraba* or commenda, credit arrangements, transfers of debt, and letters of credit all of which were sanctioned by religious theory. Most importantly, because these alternate forms of investment and credit were socially more congenial and effective means of economic connection, they were preferred over loans.²

¹ For a recent discussion of the classical Islamic views on interest, see N. A. Saleh, *Unlawful Gain and Legitimate Profit in Islamic Law: Riba, Gharar and Islamic Banking* (Cambridge University Press, 1988), 9–32.

² The most important study on the development of credit in medieval Islamic societies is A. L. Udovitch, *Partnership and Profit* (Princeton University Press, 1970). See also A. L. Udovitch, "Bankers without Banks: Commerce, Banking, and Society in the Islamic World of the

Medieval Islamic societies thus developed sophisticated instruments and institutions which took into account the exigencies of Islamic law. As late as the twelfth and even the thirteenth centuries, institutions of credit and finance were more developed in the Near East than they were in western and southern Europe. In addition, coinage and currency systems of Islam continued to interact with other societies across the Mediterranean throughout the centuries.

Ottoman institutions of credit and finance retained their Islamic lineage and remained mostly uninfluenced by the developments in Europe until the end of the seventeenth century. Dense networks of credit developed in and around Ottoman urban centers despite the Islamic prohibitions against interest. Muslim entrepreneurs continued to make use of the varieties of business partnerships that flourished in most parts of the Islamic world. The Ottoman government continued to rely on tax-farming for both tax collection and short term borrowing purposes as had been the practice of most Islamic states. With the increasing economic integration of Ottoman lands with Europe, however, European institutions of both private and public finance began to grow in influence during the eighteenth century. This chapter provides an overview of the Ottoman institutions of credit and finance through the seventeenth century. Their subsequent evolution will be taken up in chapters 12 and 13.

Credit

Neither the Islamic prohibitions against interest and usury nor the absence of formal banking institutions prevented the expansion of credit in Ottoman society. Utilizing the Islamic court records the late Ronald Jennings has shown that dense networks of lenders and borrowers flourished in and around the Anatolian cities of Kayseri, Karaman, Amasya and Trabzon during the sixteenth century. Over a twenty-year period which his study covered, he found literally thousands of court cases involving debts. Many members of each family and many women are registered in these records as borrowing and lending to other members of the family as well as to outsiders. These records leave no doubt that the use of credit was widespread among all segments of the urban and even rural society. Most lending and borrowing was on a small scale and interest was regularly charged on credit, in accordance with both Islamic and Ottoman law, with the consent and approval of the court and the ulema. In their dealings with the court the participants felt no need to conceal interest or resort to tricks

Middle Ages," *Princeton Near East Papers* 30, Princeton University, NJ 1981. For a comparative study of pre-modern financial systems, see R. W. Goldsmith, *Premodern Financial Systems, a Historical Comparative Study* (Cambridge University Press, 1987). Unfortunately, however, this volume has very little to say about the Ottoman financial institutions, as the author is well aware. See chapter 6, pp. 80–93.

in order to clear legal hurdles. Annual rates of interest ranged from 10 to 20 percent.³

The supply of capital was fairly abundant and hence not the monopoly of any small group of moneylenders. The moneylenders came as much from the Muslim as the Christian and Jewish inhabitants of these towns. There was little indication until the end of the seventeenth century in either Anatolia or in Aleppo that non-Muslims might gain control over the credit markets. A commercial or mercantile mentality and the profit motive thus permeated all segments of the urban societies in these areas, not just the people of the bazaars but the rural landholders, the Ottoman military class, and the ulema as well.⁴

Haim Gerber has also examined similar court records involving the city of Bursa during the seventeenth century. In comparison to the towns examined by Jennings, Bursa was a larger and more commercialized city on the long-distance trade routes. It specialized in the silk trade and industry. In Bursa, too, credit was widely and intensely used even by the poorest segments of society. At the same time, credit patterns in Bursa exhibited different characteristics than those of other urban centers in Anatolia. The loans were often much bigger in Bursa and credit relations also involved people from other urban centers. The loan contracts show that participants often resorted to simple arrangements to circumvent the prohibitions on interest. A frequently used method was the wool or cloth sale in which the borrower accepted a regular loan and also supposedly bought a piece of wool or cloth, the price of which equaled the agreed interest payment to be paid at the end of the contract term.⁵

Another difference in Bursa was the existence of a class of big moneylenders who did not necessarily dominate all lending but still played an important role in overall volume. The wealth of these big lenders could be

³ R. C. Jennings, "Loans and Credit in Early Seventeenth Century Ottoman Judicial Records", *Journal of the Economic and Social History of the Orient* 16 (1973), 168–216. In contrast, for example, big lenders prevailed in medieval Egypt and Syria. S. D. Goitein, *A Mediterranean Society, the Jewish Communities of the Arab World as Portrayed in the Documents of the Cairo Geniza*, Vol. I: *Economic Foundations* (Berkeley and Los Angeles, CA: University of California Press, 1967), 169–85; and I. Lapidus, *Muslim Cities in the Later Middle Ages* (Cambridge University Press, 1967), 120–21.

⁴ B. Masters, *The Origins of Western Economic Dominance in the Middle East: Mercantilism and the Islamic Economy in Aleppo, 1600–1750* (New York, NY: New York University Press, 1988), 146–85; and A. Cohen, *Economic Life in Ottoman Jerusalem* (Cambridge University Press, 1989). Also H. İnalçık, "Osmanlı İdare, Sosyal ve Ekonomik Tarihiyle İlgili Belgeler: Bursa Kadı Sicillerinden Seçmeler," *Türk Tarih Kurumu, Belgeler* 14 (1981), 1–91, for fifteenth-century Bursa; and H. Ongan, *Ankara'nın İki Numaralı Şerhiye Sicili* (Ankara: Türk Tarih Kurumu Yayınları, 1974), for sixteenth-century Ankara.

⁵ H. Gerber, *Economy and Society in an Ottoman City: Bursa, 1600–1700* (Jerusalem: The Hebrew University, 1988), 127–47. One interesting issue that appeared often in the local courts during the seventeenth century when the silver content of the akçe fluctuated frequently was whether debts must be paid off in currency with standards prevailing at the time of the initial loan. Decisions on this issue were mixed. Jennings, "Loans and credit," 173; and Gerber, *Economy and Society*, 128–29.

determined from the probate inventories (*tereke*) of the city which show large numbers and amounts of loans still outstanding at the time of their deaths. Their estates often exceeded hundreds of thousands and occasionally millions of akçes. In fact, the greatest fortunes in the larger cities of Bursa and Edirne during the seventeenth century belonged to people who lent a large part of their assets. High-level bureaucrats were also engaged in moneylending especially in Edirne.⁶ Gerber also underlines that the volume of credit relations increased substantially in Bursa between the end of the fifteenth century and the seventeenth century.⁷

During the fifteenth and sixteenth centuries, Greeks and Jews were amongst the leading financiers in Istanbul, lending not only to private businesses but also to the state on a short term basis. They were also amongst the major players in the tax-farming auctions. Prominent amongst these were Palaologi, Cantacuzeni, Chalcocondyli, and others of Byzantine heritage. Don Joseph Nasi whose family had been forced earlier to leave the Iberian peninsula, arrived in Istanbul in 1552. He owed his spectacular rise to his financial services to Prince Selim, Süleyman's son. From Istanbul, he was able to make large loans to the kings of Poland and France. Many prominent Ottomans invested in these loans. Later in 1588, Alvaro Mendes of the Portuguese *Marrano* banking family came to settle in Istanbul bringing with him reportedly 850,000 gold ducats and received the same favors once enjoyed by Don Joseph Nasi. Large-scale banking and trade operations formed the core of the family's activities. These operations were carried on through a network of agents located in the leading European centers. Jewish activity in international trade and finance declined in the seventeenth century, however.⁸

In an interesting recent study, Bogdan Murgescu examined the links between the Romanian principalities and the credit markets of Edirne and

⁶ For examples of the terekes and loans outstanding of high-level bureaucrats who died in Edirne during the sixteenth and seventeenth centuries, see Ö. L. Barkan, "Edirne Askeri Kassamı'na ait Tereke Defterleri (1546-1659)," *Türk Tarih Kurumu Belgeler* 3 (1966), 31-46. For the terekes of Bursa until 1640, see H. Özdeğer, *1463-1640 Yılları Bursa Şehri Tereke Defterleri* (İstanbul Üniversitesi İktisat Fakültesi Yayınları, 1988). See also H. İnalçık, "Capital formation in the Ottoman Empire," *The Journal of Economic History* 29 (1969), 108-09 on the wealth of the big moneylenders in Bursa during the fifteenth and sixteenth centuries when the estates of the large lenders were smaller.

⁷ This is not very surprising in view of the changes that occurred during the sixteenth century as will be discussed in chapters 6 and 7. See also H. İnalçık, "15. Asır Türkiye İktisadi ve İçtimai Tarihi Kaynakları," *İstanbul Üniversitesi İktisat Fakültesi Mecmuası* 15 (1953-54), 51-75.

⁸ H. İnalçık, "The Ottoman State: Economy and Society, 1300-1600," in İnalçık and Quataert (eds.), *An Economic and Social History of the Ottoman Empire, 1300-1914* (Cambridge University Press, 1994), 209-15; also İnalçık, "Jews in the Ottoman Economy and Finances, 1450-1500," in C. E. Bosworth, C. Issawi, R. Savory and A. L. Udovitch (eds.), *The Islamic World from Classical to Modern Times, Essays in Honor of Bernard Lewis* (Princeton, NJ: The Darwin Press, 1989), 513-33. For archival documents on the activities of Jewish moneylenders in Istanbul, Edirne, Bursa, and elsewhere, see also N. Sevgen, "Nasıl Sömürüldük: Sarraflar," *Belgelerle Türk Tarihi Dergisi* 14-24 (1968-69).

Istanbul. Towards the end of the seventeenth century, the princes of Wallachia and Moldavia were unable to meet the rising demands from Istanbul for annual tribute payments. As a result, they began to borrow large sums in the credit markets of Edirne and Istanbul. The account books of Prince Constantin Brancoveanu show that total debt payments to the creditors in these two cities reached one million Dutch thalers or about 400,000 Venetian ducats during the period from 1694 through 1703. Close to half of these payments were made to a large number of Muslim money-lenders. Part of these funds apparently belonged to the guilds and they were being loaned by their chiefs. Payments to Greek Orthodox and Jewish creditors accounted for another 40 percent of the total. The interest rate on these loans was usually fixed on a monthly basis and varied between 2 and 2.5 percent per month.⁹

Another important provider of loans in Istanbul and the Anatolian urban centers were the cash *vakıfs*, pious foundations established with the explicit purpose of lending their cash assets and using the interest income to fulfill their goals. These endowments began to be approved by the Ottoman courts in the early part of the fifteenth century and had become popular all over Anatolia and the Balkan provinces by the end of the sixteenth century. In addition to the cases mentioned by Jennings and Gerber for Anatolian urban centers, an inventory of vakıfs in Istanbul undertaken for the year 1570 also points to the large presence of cash vakıfs. The survey also showed that the cash vakıfs of Istanbul lent at the constant rate of 10 percent per annum.¹⁰

More recently, Murat Çizakça made a detailed study of cash vakıfs for the city of Bursa from the sixteenth through the eighteenth centuries. His research showed that the cash *vakıfs* usually lent small amounts to small borrowers, both to households and small businesses and a large part of these remained consumption oriented loans. The sample results suggest that at any given time during the eighteenth century, as much as 9 percent of the inhabitants of the city of Bursa used credit from the cash *vakıfs*.¹¹

From the sixteenth through the eighteenth century, the cash *vakıfs* usually lent at rates between 11 and 13 percent which were lower than the prevailing market rates of interest in other credit transactions.¹² An interesting development that became more pronounced during the eighteenth century was the increasing allocation of the funds to the trustees of these endowments. The trustees then used the borrowed funds to lend at

⁹ B. Murgescu, "Romanian Information regarding the Ottoman Capital Market: Prince Constantin Brancoveanu's Debt Payments (1694–1703)," *Toplum ve Ekonomi* 10 (1997), 39–51.

¹⁰ Ö. L. Barkan and E. H. Ayverdi, *İstanbul Vakıflar Tahrir Defteri: 953 (1546) Tarihi* (Istanbul: 1970).

¹¹ M. Çizakça, "Cash Waqfs of Bursa, 1555–1823," *Journal of the Economic and Social History of the Orient* 38 (1995), 335–36.

¹² Çizakça, "Cash Waqfs," 331.

higher rates of interest to large-scale moneylenders (*sarraḥ*) in Istanbul who pooled these funds to finance larger ventures, most importantly, long-distance trade and tax-farming.¹³

Not surprisingly, a lively debate developed during the sixteenth century within the Ottoman ulema regarding whether the cash vakıf should be considered illegitimate. The cash vakıfs were opposed by those who believed that only goods with permanent value such as real estate should constitute the assets of a pious foundation and that the cash *vakıfs* contravened the Islamic prohibition of interest. The majority of the ulema, however, remained eminently pragmatic and the view that anything useful for the community is useful for Islam ultimately prevailed. During the heated debate, Ebusuud Efendi, the prominent, state-appointed religious leader (*şeyhulislam*) of the period, defended the practice from a purely practical point of view arguing that abolition of interest taking would lead to the collapse of many pious foundations, a situation that would harm the Muslim community.¹⁴

The extent of the geographical diffusion of the cash *vakıfs* in the Arab provinces of the Empire is not yet clear. Originally, it was argued that they did not exist in the Arab provinces where interest bearing credit was not as easily accepted but this view has been challenged. The existence of cash vakıfs in Aleppo has been documented and it is possible that future research may reveal further examples in other Arab cities, at least in Syria. There was, however, a qualitative difference between Anatolia and the Balkans on the one hand, and the Arab provinces of the Empire on the other, with regard to the ease with which interest on credit was accepted and the frequency of cash *vakıfs*. Based on court records in Syria, Abdul-Karim Rafeq has argued that interest-free loans far outnumbered interest-bearing loans in the sixteenth century and the courts recognized interest attached to the loans reluctantly and only after the orders of the sultan in Istanbul. By the early part of the eighteenth century, however, loans with interest dominated both urban and rural credit transactions.¹⁵

¹³ M. Çizakça, *A Comparative Evolution of Business Partnerships, the Islamic World and Europe with specific reference to the Ottoman Archives* (Leiden: E. J. Brill, 1996), 131–34. Çizakça also emphasizes that some twenty percent of the cash vakıfs survived for more than a century. However, it is difficult to say whether this is a high or low rate of survival in the absence of similar survival rates for other vakıfs with non-cash assets.

¹⁴ J. E. Mandaville, "Usurious Piety: the Cash Waqf Controversy in the Ottoman Empire," *International Journal of Middle East Studies* 10 (1979), 289–308; also see S. Faroqhi, "Crisis and change, 1590–1699," in H. İnalcık and D. Quataert (eds.), *An Economic and Social History of the Ottoman Empire, 1300–1914* (Cambridge University Press, 1994), 490–92.

¹⁵ Mandaville, "Usurious piety," 308; Masters, *Origins*, 162; and Çizakça, "Cash Waqfs," 313; also N. Çağatay, "Riba and Interest Concept and Banking in the Ottoman Empire," *Studia Islamica* 32 (1970), 53–68; A.-K. Rafeq, "City and Countryside in a Traditional Setting, the case of Damascus in the First Quarter of the Eighteenth Century", T. Philipp (ed.), *The Syrian Land in the Eighteenth and Nineteenth Century* (Stuttgart: Franz Steiner Verlag, 1992), 323–29.

Business partnerships

Even though there did not exist an insurmountable barrier against the use of interest-bearing loans for commercial credit, this alternative was not pursued in the medieval Islamic world. Instead, other commercial techniques were developed which played the same role as interest-bearing loans and thus made the use of loans unnecessary. Among them were a variety of business partnership forms such as *mudaraba* or *commenda*, credit arrangements, transfers of debt and letters of credit all of which were sanctioned by religious theory. Long-distance trade was thus financed not by simple credit relations involving interest but by a variety of Islamic business partnerships the specifics of which depended on the nature of the risks and the resources provided by the different partners.

Ottoman merchants widely used the varieties of Islamic business partnerships practiced in the Islamic world since the classical era.¹⁶ The most frequently used method in the financing of long-distance trade and certain other types of business ventures was the *mudaraba* partnership of classical Islam in which an investor entrusted his capital or merchandise to an agent who was to trade with it and then return the principal. The profits were then shared between the principal and the agent according to some predetermined scheme. Any loss of the capital resulting from the exigencies of travel or the business venture itself were borne exclusively by the principal. The liability of the agent was limited to his time and efforts.¹⁷ To a lesser extent the Ottomans also used *mufawada* partnership of the Hanefi school of Islam in which the partners were considered equals in terms of capital, effort, returns, and liabilities. In the related *musharaka* or *inan* arrangement, the partners were free to invest different amounts and agree to share the returns and liabilities in unequal but pre-arranged rates.

Evidence from Islamic court records on commercial disputes and their resolution from the fifteenth through the middle of the nineteenth centuries indicate that in Anatolia and Istanbul, at least, the Ottoman jurists were well informed about the teachings of medieval Muslim jurists and, in general, adhered closely to the classical Islamic principles in disputes arising from these partnerships. There were some innovations over the centuries; for example, some interesting combinations of *mudaraba* and putting out activities were developed. On the whole, however, evidence from hundreds of business partnerships indicates that classical Islamic partnership forms not only survived but were applied, with minor exceptions, true to their

¹⁶ Udovitch, *Partnership and Profit*, 170–217; and Çizakça, *Comparative Evolution*, 66–76.

¹⁷ In essence, this was identical to the *commenda* of Europe. For discussions of the Islamic origins of European *commenda*, see A. L. Udovitch, "At the Origins of the Western *Commenda*: Islam, Israel, Byzantium", *Speculum* 37 (1962), 198–207; and E. Ashtor, "Banking Instruments between the Muslim East and the Christian West," *Journal of European Economic History*, 1 (1972), 553–73; and Çizakça, *Comparative Evolution*, 10–32.

original forms until the nineteenth century. Çizakça suggests that the continued dominance of small-scale firms or partnerships was probably the most important reason for the limited changes in this area.¹⁸

One important instrument in the finance of long-distance trade was the *suftaja*, a bill of exchange or letter of credit. The basic purpose of the *suftajas* was to expedite long-distance payments or transfer of funds. In Europe the bill of exchange entailed the initial payment of one type of currency in return for the payment of another type of currency at a different location. In the Geniza documents of medieval Egypt the *suftajas* consistently appeared as involving the repayment of exactly the same type of money to the issuing banker. They were as good as money; the bearer could fully expect to redeem his *suftaja* for cash immediately upon arrival at his destination. The prompt payment was further assured by the government through the imposition of stiff penalties for any delays. *Suftajas* were used widely inside the Ottoman Empire between Anatolia, the Aegean islands, Crimea, Syria, Egypt, and also with Iran. Ottoman court documents from fifteenth- and sixteenth-century Bursa, a major center in long-distance trade point to the high frequency of the use of *suftajas*. The local judges (*kadis*) were actively involved in the enforcement of the *suftajas* in their various forms.¹⁹ Another type of letter of credit was the *hawala* which was an assignation of a fund from a distant source of revenue by a written order. It was used in both private and state transactions to avoid the dangers and delays in the transportation of cash.²⁰

State finances and financing the state

While loans to kings, princes, and governments were part of the regular business of European banking houses in the late Medieval and Early Modern periods, in the Islamic world advances of cash to the rulers and the public treasury had been handled differently. They took the form of tax-farming arrangements in which individuals possessing liquid capital assets advanced cash to the government in return for the right to farm the taxes of a given region or fiscal unit for a fixed period. Tax-farming thus dominated the Islamic world from the Mediterranean to the Indian Ocean, from the earliest days through the Early Modern period.

On the whole, the Ottomans continued with the Islamic practices until the

¹⁸ Çizakça, *Comparative Evolution*, 65–85 and 126–131; also M. Çizakça, “Financing Silk Trade in the Ottoman Empire: Sixteenth to Eighteenth Centuries” in Simonett Cavaciocchi (ed.), *La Seta in Europa secc. XIII–XX* (Prato: Le Monier, 1993), 711–23.

¹⁹ Udovitch, *Partnership and Profit*, 268–69; Ashtor, “Banking instruments,” 554–62; and H. Sahillioğlu, “Bursa Kadı Sicillerinde İç ve Dış Ödemeler Aracı Olarak ‘Kitabü’l-Kadı’ ve ‘Süftece’ler,” in O. Okyar and H. Ü. Nalbandoğlu (eds.), *Türkiye İktisat Tarihi Semineri* (Ankara: Hacettepe Üniversitesi Yayınları, 1975), 103–44.

²⁰ İnalçık emphasizes the use of *hawala* in state transactions. H. İnalçık, “Hawale”, *Encyclopedia of Islam*, second edition (Leiden and New York: E. J. Brill, 1966).

end of the seventeenth century. In the fifteenth and sixteenth centuries, some of the revenue sources of the central government were administered through the tax-farming (*mukataa-iltizam*) system but these remained limited. The state did not yet emerge as a significant long-term borrower during this period. Until late in the sixteenth century, the largest part of the tax obligations to the state were collected locally and mostly in kind by the *sipahis* under the *timar* system. These funds were then used locally by the *sipahis* to equip and prepare a given number of soldiers for the military campaigns.

There are a number of implications of the *timar* system for the use of money and public finances. Above all the *timar* was a decentralized system in which taxes were collected and the revenues were spent locally. A large part of the tax revenues never reached the central treasury. Under this system, the *sipahis* were often the most market-oriented members of the rural communities they lived in as they had to convert to cash most of the tax revenues they collected in kind and then spend them on the training and equipment of the soldiers.²¹

Until the second half of the sixteenth century state finances were relatively strong thanks to the additional revenues obtained through the rapid territorial expansion of the Empire and the state did not feel the need to increase the revenues collected at the center. There are examples of short-term borrowing by the state during the second half of the sixteenth century. These loans were made by Jewish financiers who also lent to high-ranking members of the bureaucracy and even to sons of the sultan. Significantly, these services earned the financiers the inside track on some of the most lucrative tax-farming contracts.²²

As fiscal difficulties began to mount the state began to resort to short-term borrowing from the high-level bureaucrats including the viziers and even the sultan himself during periods of emergency and especially wars. Caroline Finkel has shown in her detailed study of the Ottoman military campaigns in Hungary around the turn of the century that these loans ranged from hundreds of thousands of akçes to millions of akçes. At this time the chances for reimbursement in full were still quite high and the capital accumulated by the high-ranking members of the bureaucracy could thus be put to useful purpose in the hopes of future personal preferment. Moreover, such loans to meet the shortage of cash to pay the troops began to play a critical role in avoiding the mutiny of the soldiers. Even if no interest was paid by the state on these loans, by lending money to the

²¹ For Ottoman methods of tax assessment and tax collection as well as a study of the Ottoman fiscal bureaucracy, see L. T. Darling, *Revenue-Raising and Legitimacy, Tax Collection and Finance Administration in the Ottoman Empire, 1550–1660* (Leiden: E. J. Brill, 1996).

²² H. İnalcık, and D. Quataert (eds.), *An Economic and Social History* (Cambridge University Press, 1994), 212–14.

campaign treasury, members of the bureaucratic establishment were acting to uphold and even consolidate their place within a system of which they were, after all, the main beneficiaries.²³

With the changes in military technology and the need to maintain larger, permanent armies at the center, the timar system began to lose both its military and fiscal significance. As a result, pressures increased to collect a larger part of the rural surplus at the center. Towards the end of the sixteenth century, the timar system began to be abandoned in favor of tax-farming and the tax units (*mukataas*) began to be auctioned off at Istanbul.²⁴ The net impact of this shift on the level of money use in the small towns and rural areas is not entirely clear. In the earlier period the sipahi was responsible for the conversion of taxes collected in kind to cash. The same task was now being undertaken by the tax-farmers or their local representatives. Those taxes collected by the sipahi in cash during the fifteenth and sixteenth centuries such as the *çift resmi* were soon abandoned and rural taxes began to be collected almost entirely in kind. This last change may have also been a response to the increasing shortages of coinage during the seventeenth century. The tax-farming system also created the need to transmit large sums from each district to the capital. These were rarely carried in cash form, however. Instead, *suftajas* and bills of exchange began to be used more frequently joining the payment circuits of the state with those of merchants, both Ottoman and European, around the Balkans and eastern Mediterranean.

In the longer term, further deterioration of the state finances increased the pressures on the central government to take greater advantage of the tax-farming system for the purposes of domestic borrowing. The central government thus began to increase the length of the tax-farming contracts from one to three years, from three to five years and even longer. It also demanded an increasingly higher fraction of the auction price of the contract in advance. Tax-farming was thus converted to a form of domestic borrowing with the actual tax revenues being used as collateral by the central government.

The demands of the central government for larger advance payments increased the need for the participants at these auctions to secure long-term financing for their operations. Islamic business partnerships were used in these ventures. Behind the individual that joined the bidding in the tax-farming auctions, there often existed a partnership that included financiers as well as the agents who intended to organize the tax collection process itself often by dividing the large initial contract into smaller pieces and finding sub-contractors. These arrangements were mostly in the form of a

²³ C. Finkel, *The Administration of Warfare: the Ottoman Military Campaigns in Hungary, 1593–1606* (Vienna: VWGÖ, 1988), 261–63.

²⁴ H. İnalçık, "Military and Fiscal Transformation in the Ottoman Empire, 1600–1700", *Archivum Ottomanicum* 6 (1980), 283–337.

mudaraba contract although other types of Islamic business partnership such as *mufawada* or *inan* were also used.²⁵

A sample of 534 tax-farms for the sixteenth and seventeenth centuries compiled and examined by Murat Çizakça shows that 60 percent of the tax-farmers themselves were Moslems. The share of Jews as tax-farmers increased to a peak 49 percent between 1591 and 1610 and then declined during the seventeenth century, averaging 28 percent for the entire period. The share of Christians remained below 10 percent. Government documents also provide evidence on the business partnerships of the tax-farmers although it is likely that many partnerships involving the financing of the operations were not included in the official records. Close to 85 percent of the partnerships included in government documents involved partners from a single religious community and the rest were between partners from different religious communities.²⁶

With the decline in its power during the seventeenth century, the central government lost control of many of the tax-farming contracts. These contracts simply stayed with the same tax-farmers at the same fixed value for decades indicating that the auctions ceased to be competitive in these cases. The official records show that these frozen tax-farms were controlled mostly by the members of the bureaucracy although it is likely that they entered partnership arrangements in the financing and/or actual collection of the tax revenues. In many instances, these insiders at the capital sold the tax-farm contracts to subcontractors after the initial auction.²⁷

²⁵ For examples of how classical Islamic partnerships were used in the tax-farming of mints in Anatolia and the Balkans at the end of the fifteenth century, see H. Sahillioğlu, "Bir Mültezim Zimem Defterine Göre XV. Yüzyıl Sonunda Osmanlı Darphane Mukataaları", *İstanbul Üniversitesi İktisat Fakültesi Mecmuası*, 23/1–2 (1962–63), 145–218.

²⁶ Çizakça, *Comparative Evolution*, 154–57; also H. Gerber, "Jewish Tax-farmers in the Ottoman Empire in the Sixteenth and Seventeenth Centuries", *Journal of Turkish Studies* 10 (1986), 143–54.

²⁷ Çizakça, *Comparative Evolution*, 140–45.

Money and empire

Monetary zones within the Empire

Until the sixteenth century, Ottoman territories in Anatolia and the Balkans had a unified monetary system based on the gold sultani and the silver akçe. At the bottom of the hierarchy was the copper mangır or pul with nominal values and for small transactions. As the Ottoman state territorially expanded to become a full-fledged empire, however, this simple system could not be continued. The newly conquered territories, each of which was subject to different economic forces and very different patterns of trade, already had well-established currency systems of their own. The Ottomans pursued a two-tiered approach to money and currency in these areas. They unified the gold coinage at the existing international standards, but allowed the creation of multiple currency zones in silver in view of the sharply different commercial relations and needs of the new provinces.

In gold, the sultani became the only Ottoman coin across the Empire. This was due to both symbolic and economic reasons. With a single gold coin, the ultimate symbol of sovereignty, the Ottomans thus unified the Empire from the Balkans to Egypt and the Maghrib. The standards of the sultani, its weight and fineness, were kept identical to those of the Venetian ducat that had become the accepted standard of payment in long-distance trade across the Mediterranean and beyond. Whether Ottoman gold coinage was issued in a given territory or not depended upon its status; whether it was part of the Empire proper or whether it was considered a province with some degree of autonomy. Hence, the sultani was issued regularly in Egypt, Algiers, Tunis, as well as the Balkans and Anatolia. In contrast, it was never minted in the autonomous Danubian principalities of Wallachia and Moldavia. Similarly, the autonomous Crimean Khanate was able to issue its own silver coinage but no gold coinage was minted there for either the khans or the Ottoman sultans.

In silver coinage used in daily transactions and to some extent in long-distance trade, the central government chose to continue with the existing monetary units in the newly conquered territories with or without modifica-

tions. The most important reason for this preference was the wish to avoid economic disruption and possible popular unrest. It was also not clear whether the central government had the fiscal, administrative, and economic resources to unify the silver coinage of the Empire. As a result, while the silver coinage minted in the new territories began to bear the name of the sultan, their designs and standards as well as the names of the currencies adhered to the pre-Ottoman forms and usages in many instances. Earlier styles and types of copper coinage were also continued.

The central government thus handled the task of establishing a monetary system for the expanding empire with a large degree of pragmatism and flexibility. This approach was in fact quite similar to Ottoman administrative practices in other areas. With respect to land tenure systems, for example, the Ottoman central administration did not attempt to impose the *timar* regime in all of the conquered territories. In many of the more distant areas administered more loosely from the capital, such as Eastern Anatolia, Bagdad, Basra, Egypt, Yemen, Moldavia, Wallachia, Georgia or the Maghrib, the Ottomans were eager to collect taxes but altered the existing land regimes either to a limited extent or not at all. Similar observations can be made about the legal codes (*kanunname*) the Ottomans issued in these provinces. In varying degrees these codes combined the pre-Ottoman practices with the Ottoman.¹ As a result, in monetary as well as other matters, there emerged inside the Empire different zones with varying degrees of administrative control. At the core were the areas most closely administered by the capital with institutions most closely resembling those in the Istanbul region. With increasing distance from the capital, the institutions and administrative practices reflected the power balances between the capital and the local structures and forces in the provinces.

This chapter will examine the evolution of gold, silver and copper coinage, and more generally, the currencies and monetary practices in different regions of the Empire from the Balkans and Crimea to Syria, Egypt, Iraq, Yemen, and the Maghrib during the sixteenth and seventeenth centuries. From these will emerge for the first time the structure and logic of the Ottoman monetary system across the large Empire.

The Balkans

The Balkans together with western and central Anatolia including the capital city and its environs constituted the core region of the Ottoman monetary system. The silver akçe was both the leading unit of account and the leading means of exchange in this region. For large transactions and

¹ Ö. L. Barkan, *Zirai Ekonominin Mali ve Hukuki Temelleri, Kanunnameler, Cilt 1* (Istanbul: 1942); and A. Akgündüz, *Osmanlı Kanunnameleri ve Hukuki Tahlilleri* (Istanbul: Fey Vakfı, 1990–94), 8 vols.

hoarding purposes, the sultani was used together with European gold pieces. The mint at the capital city, or “Kostantaniyye” as it was called on Ottoman coinage until the eighteenth century, was the leading mint of the region for both the akçe and the sultani.

The numbers of mints producing silver akçes were limited until the end of the fifteenth century. Of the fourteen mints producing akçes during the thirty-one-year reign of Bayezid II (1481–1512), six were located in the Balkans, one in the capital, and the rest in Anatolia.² In addition, two mints, Kostantaniyye and Serez in Macedonia produced sultanis. The numbers of active mints in the Balkans as well as other regions across the Empire increased substantially during the sixteenth century, especially during the reign of Suleiman the Magnificent (1520–66) and reached their peak during the reign of Murad III (1574–95) when as many as thirty mints are known to have produced akçes including fifteen in the Balkans and the Aegean islands. With a minor exception, all of the latter were located south of the Danube and as far west as Banja Luka in Bosnia. During the same period nine mints in the Balkans and Anatolia produced gold sultanis.³ (See map I.)

The most active mints in the Balkans continued to be those located at or close to the sites of mines in Macedonia and Serbia.⁴ The only mint in Anatolia located near a silver mine was that of Canca near Gümüşhane in northeastern Anatolia. The bulk of silver coinage was thus produced in the Balkans and transported to Anatolia in one way or another. In contrast, copper coinage continued to be produced mostly in Anatolia and the capital city and transported to the Balkans.⁵ The Venetian gold ducat remained the most important foreign coin circulating in the Balkans and Anatolia during the sixteenth century. In the second half of the century, large European silver coins called groschen, most importantly the Spanish eight-real piece and the Dutch lion thaler, also began to circulate in the Balkans and Anatolia.⁶

The Ottoman government did not mint akçes or sultanis in Hungary during the sixteenth and seventeenth centuries. One important reason was

² These were Edirne, Gelibolu, Üsküp, Novar, Kratova, and Serez.

³ M. Erüreten, “Osmanlı Akçeleri Darp Yerleri”, *The Turkish Numismatic Society Bülten* 17 (1985), 14–5; A. Schaendlinger, *Osmanische Numismatik* (Braunschweig: Künhardt and Biermann, 1973), 93–106; J. Sultan, *Coins of the Ottoman Empire and the Turkish Republic, a Detailed Catalogue of the Jem Sultan Collection*, vol. 1 (Thousand Oaks, CA: B and R Publishers, 1977), 91–135; R. Kocaer, *Osmanlı Altın Paraları* (Istanbul: Güzel Sanatlar Matbaası, 1967), 58–93; and S. Sreckovic, *Osmanlijski Novac Kovan na tlu Jugoslavije* [Ottoman Coins from Mints in Yugoslavia] (Belgrad, 1987), 5–92; S. Rizaj, “Counterfeit Money on the Balkan Peninsula from the fifteenth to the seventeenth century,” *Balkanica* 1 (1970), 71–79.

⁴ For the silver mines in the Balkans, see chapter 2, pp. 36–38.

⁵ Schaendlinger, *Osmanische Numismatik*, 98; and Sreckovic, *Osmanlijski*, 5–92.

⁶ P. F. Sugar, *Southeastern Europe under Ottoman Rule, 1354–1804* (Seattle, WA: University of Washington Press, 1977), 72–110.



Map 1 Ottoman mints producing silver and gold coinage late in the sixteenth century, during the reigns of Selim II, 1566–74, and Murad III, 1574–95)

the absence of silver and gold deposits in the Ottoman regions of Hungary although major gold mines were located in other parts of Hungary and these had supplied large areas of Europe ever since the late medieval period. Evidence from coin hoards indicates that akçes and sultanis produced in the Balkans circulated in Hungary, albeit in limited volume. Circulating more widely was the coinage of the neighboring states, most importantly the silver and gold coins of the independent Hungarian principalities, the small silver groats, zweirs, pfennigs from the Habsburg domains, small silver coins from Poland such as the half-groats, and increasingly from the second half of the sixteenth and during the seventeenth century, the large thalers. Nonetheless, all taxes in Ottoman Hungary continued to be specified in akçes. In other words, while the akçe served as the unit of account, at least in governmental transactions, the coinage of the neighboring states served as the leading means of exchange and payments, including taxes.⁷

The Danubian principalities were never fully incorporated into the Ottoman Empire but became vassal states paying regular tribute, Wallachia beginning late in the fifteenth century and Moldavia in the early part of the sixteenth century. These principalities were mostly independent in their internal affairs and did not adopt Ottoman institutions such as the *timar* land tenure system. As a rule, the Ottomans did not mint coins in Wallachia or Moldavia. Similarly, local rulers in Wallachia did not mint coins with their own name and those in Moldavia did so on a limited basis. This pattern can not be explained solely by reference to the absence of specie in these areas. Instead, the pattern is highly suggestive about both the extent and the limits of the autonomy enjoyed by these principalities during the Ottoman period.⁸

During the sixteenth century, the akçe was the leading unit of account in Wallachia but not in Moldavia. Evidence from coin hoards indicate that akçes minted in the Balkans and Istanbul circulated widely in these principalities during the sixteenth century, much more so than the Ottoman provinces of Hungary. Akçes and sultanis accounted for more than 86 percent of the value of all coins found in Wallachia dating until the 1580s, but only for 38 percent during the last two decades of the sixteenth century. The corresponding percentages were lower for Moldavia at 26 percent and 7 percent, respectively. In both cases, the balance was made up primarily by

⁷ I. Gedai, "Turkish Coins in Hungary in the 16th and 17th Centuries", in *A Festschrift Presented to Ibrahim Artuk on the Occasion of the 20th Anniversary of the Turkish Numismatic Society* (Istanbul: Turkish Numismatic Society, 1988), 102–19; P. Elemer, *Török Penzek a Hodoltság Kori* [Turkish Coins Circulating in Hungary] (Budapest: Magyarországon, 1986); and V. Zimanyi, *Economy and Society in Sixteenth and Seventeenth Century Hungary (1526–1650)* (Budapest: Akadémiai Kiado, 1987), pp. 17–27.

⁸ Sugar, *Southeastern Europe*, pp. 113–26. In a recent article that appeared too late to be incorporated into the above discussion, Mihai Maxim addresses this question in detail. M. Maxim, "In the Right to Strike Currency of the Reigning Princes of Moldavia and Wallachia during the period of Ottoman suzerainty," *The Journal of Ottoman Studies*, 18, Istanbul (1998), 69–88.

Hungarian coins in the earlier period and increasingly by the large silver coins from central and western Europe. In addition, Polish silver coins, especially the half groats, were significant in Moldavia at the end of the century. Circulation of gold coins remained limited.⁹

A short lived episode towards the end of the sixteenth century provides important insights into the nature of payments flows between the Danubian principalities and Istanbul, and more generally across the Empire. Large volumes of Ottoman shahis minted in eastern Anatolia and Iraq during the war of 1578–90 with Iran and then sent to the capital city as some form of payment ended up in the principalities during the 1580s as payments for the exports of Wallachia and Moldavia. Since the official exchange rates overvalued the shahis, however, they were promptly returned to Istanbul as part of the tribute payment. Istanbul returned the favor once again. The flows of shahis between the principalities and the capital continued until they were stopped by the central government.¹⁰

Annual tribute payments were the most important form of specie outflows from the two principalities during the sixteenth and seventeenth centuries and these were usually balanced by the trade surpluses of the principalities. The tribute payments had remained small until the end of the fifteenth century, below 10,000 Venetian ducats for each principality but began to exceed 50,000 ducats around the middle of the sixteenth century and 100,000 ducats in the second half of the century for Wallachia and averaged close to 35,000 ducats per year for Moldavia. In addition, the principalities sent to Istanbul foodstuffs and various raw materials at official prices established by the Ottoman government. These commodities played an important role in the provisioning of the capital, army, and the palace.¹¹

Another important source of monetary or payments flows across the Balkans was the military campaigns. Part of the provisioning needs of a campaign was typically financed by ordinary or extraordinary taxes collected mostly in kind but some in cash in the regions through which the army moved. The army which often exceeded 100,000 soldiers during the sixteenth century also purchased some of its supplies. For this purpose, large sums were often sent from the imperial treasury. In addition, the soldiers continued to receive their salaries during the campaigns and these often reached large sums. These large sums were then injected into the local economies. The payments flows increased proportionally when the campaigns lasted longer and large numbers of troops were kept at the frontier

⁹ B. Murgescu, *Circulatia Monetara in Tarile Romane in Secolul al XVI-lea* (Bucharest: Colectia Biblioteca Bancii Nationale, 1996), 69–201; and M. Maxim, “Considerations sur la Circulation Monetaire dans les Pays Roumains et l’Empire Ottoman dans le Seconde Moitié du XVIe Siècle,” *Revue des Etudes Sud-est Européennes* 13 (1975), 407–15.

¹⁰ M. Maxim, “O Lupta Monetara In Sec. Al XVI-Lea: Padişahi Contra Aspru,” *Cercetari Numismatice* 5 (1983), 129–52; and B. Murgescu, “The Shahis in Wallachia,” *Revue des Etudes du Sud-est Européennes* 32 (1994), 1–8.

¹¹ Sugar, *Southeastern Europe*, 122–26.

Table 6.1. *The para or medin of Egypt, 1524–1688*

Year	Average weight of coins Grams	Approximate fineness percent	Silver content Grams	Silver content para/akçe	Exchange rate against Venetian ducat	Exchange rate against akçe based on rates versus ducat
1524	1.22	84	1.05	1.6	40	1.5
1552	?	70	?			
1564	1.05	70	0.73	1.1	41	1.5
1582	?		?		43	1.5
1605	0.95	?	?			
1618	0.93	?	?			
1622	0.85	?	?			
1630	0.85					
1641	0.85	70?	0.6	2.1	80?	2.0 (official)
1650	0.85	70?	0.6	2.6		
1670	0.85	70?	0.6	2.9	90	2.8
1680	0.77	75	0.58	2.8		
1685	0.77	70	0.54	2.6	105	2.9
1688	0.74	70	0.52	2.5	105	2.9

Notes:

1 The silver content of the para refers to the legal standard. The coins in circulation often contained less silver.

2 Column 4 gives the ratio between the silver content of the para and that of the akçe. Data for the silver content of the akçe is taken from tables 4.1 and 8.2.

3 Despite the gaps in available evidence, columns 1 through 3 make clear that the assertion of a 30 percent devaluation in Egypt in 1566 as stated by Braudel (*Mediterranean World*, vol. 1, 539) based on Hammer is not correct. The above series show that the debasement of 1585–86 in Istanbul did not have a significant impact on the para of Cairo.

4 Column 6 is calculated by dividing the exchange rate of the akçe of Istanbul against the ducat by the exchange rate of the para against the ducat. The exchange rates of the akçe against the ducat are taken from tables 4.2 and 8.3.

5 For the para of Cairo in the eighteenth and early nineteenth centuries, see table 11.1.

Sources: Lachman, “A Hoard of Medins” and “The Medin”; Raymond, *Artisans et Commerçants*, vol. 1, 34–36; also Sahillioğlu *Osmanlı Para Tarihi Üzerine Bir Deneme*, 84–88 and “The Role of International Monetary and Metal Movements in Ottoman Monetary History,” appendix tables; B. Hansen, “An Economic Model for Ottoman Egypt: the Economics of Collective Tax Responsibility,” in A. L. Udovitch (ed.), *The Islamic Middle East, 700–1900: Studies in Economic and Social History* (Princeton, NJ: The Darwin Press, 1981), 513; and S. J. Shaw, *The Financial and Administrative Development of Ottoman Egypt, 1517–1798* (Princeton University Press, 1962).

for extended periods. Total sums spent in one of these campaigns often reached millions of Venetian ducats.

Caroline Finkel provides a detailed account of Ottoman spending during the unusually long military campaign against the Habsburgs in Hungary at the turn of the seventeenth century. The imperial treasury paid out a total of 380 million akçes or the equivalent of 3.2 million gold ducats during the 11 month period beginning in July 1599 and 310 million akçes or approximately 2.5 million gold ducats for a two year period beginning in July 1602. Records of the central government show that 67 percent of these payments were made by gold coin, 23 percent in silver akçes and approximately 10 percent in large European silver coins. Approximately 70 percent of these expenditures were payments of wages to the troops (*mevacib*).¹²

Egypt

The fifteenth century had been a period of monetary difficulties in Mamluk Egypt. The most frequently used coin had been the silver half *dirham* which had been issued for the first time by Sultan Al-Mua'yyad al-din Abu-Nasr Shaykh in the early part of the fifteenth century. Over time, the "muayyadi" came to be called *medin*, *nisf fiddah* and also "qıt'a", meaning "piece" in Arabic. These half dirhams weighed about 1.2 grams in the early part of the sixteenth century. The silver coinage frequently disappeared, however, and the medin was reduced to a unit of account. The local economy relied on copper coinage for daily transactions during those periods.¹³ Following the practices of most other Mediterranean and European states, the Mamluk government began in 1425 to mint a new gold unit called *ashrafi* with the same standards as the ducat. This piece soon replaced the ducat as the principal gold coin in Egypt and remained so until the Ottoman conquest in 1517.¹⁴

The Ottoman administration began to mint the medin, with some modifications, immediately after the conquest. Among these modifications was the changing of the name of the mint from al-Qahirah to *Misir*, meaning the province of Egypt. Beginning with the Ottoman law code (*kanunname*) of Egypt dated 1524, Ottoman sources refer to medin as *pare* meaning "piece" in Turkish.¹⁵ The medin, *nisf* or *pare* remained the basic coin for

¹² C. Finkel, *The Administration of Warfare: the Ottoman Military Campaigns in Hungary, 1593–1606* (Vienna: VWGÖ, 1988), 269–83.

¹³ There is a sizable literature on the monetary history of the Mamluk period which stands in sharp contrast to the dearth of studies on money in Ottoman Egypt. For details see footnote 8 in chapter 2.

¹⁴ P. Spufford, *Money and its Use in Medieval Europe* (Cambridge University Press, 1988), appendix I. Some Ottoman documents refer to the ashrafi as "the Kayıtbay gold piece" although its origins go back to Sultan al-Ashraf Barsbay. Barkan, *Zirai Ekonomi*, "Lawcode for Jerusalem," 217–219; Bacharach, "Monetary Movements," 171.

¹⁵ Barkan, *Zirai Ekonomi*, 386.

daily transactions as well as the leading money of account in Egypt until the end of the eighteenth century. It was regularly minted in Cairo until the coinage reform of Muhammed Ali in 1834.

The standards of the para was established by the Ottoman *kanunname* of Egypt dated 1524. 250 paras were to be struck from each 100 dirhams of 84 percent pure silver.¹⁶ The first para thus contained about 1.075 grams of pure silver, or about 50 percent more than that of the contemporary akçe. The exchange rate of 1.5 akçes/para which prevailed until the debasement of 1585–86 in Istanbul thus reflected the respective silver contents of these two units.¹⁷

The weight and fineness of the para fluctuated during the sixteenth century. Nonetheless, the decline in its silver content remained limited for the century as a whole while the akçe at Istanbul underwent a major debasement of 44 percent in 1585–86.¹⁸ A study of the weights of the available coins indicates that a similar debasement did not take place in Cairo late in the sixteenth century (see table 6.1) It has been suggested that the relative stability of the para was due to the success of the janissaries in Cairo in resisting a debasement. One possibility which can not be ruled out is that a major debasement was undertaken in Cairo around 1586 but the government was forced to go back to earlier standards of coinage after the revolt of the janissaries.¹⁹

At close to 0.9 grams, the weight of the para in the early part of the seventeenth century was not very different from the earlier periods. We do not know of the fineness of these coins, however.²⁰ In any case, the exchange

¹⁶ *Ibid.*

¹⁷ In Ottoman treasury accounts, the exchange rate of 2 was also used in the early part of the sixteenth century. However, the exchange rates of each of these units against the ducat gives a cross rate of 1.5 until late in the century. See table 6.1.

¹⁸ Fernand Braudel, relying on the historian Hammer states that a similar debasement of 30 percent occurred in Cairo in the 1560s. Available evidence such as the weight of the existing coins, incomplete mint records, and exchange rates indicate this was not the case. F. Braudel, *The Mediterranean and the Mediterranean World in the Age of Philip II*, vol. 1 (London: William Collins Sons, 1972), 539.

¹⁹ H. Sahillioglu, "Kuruluşta XVII. Asrın Sonlarına Kadar Osmanlı Para Tarihi," 88. In private correspondence Abdul-Karim Rafeq has informed me that according to Ibn Abi al-Surur, a local chronicler, the para was devalued by one-half in 1584 and the troops rose in revolt. Similarly, André Raymond mentions a revolt by the janissaries in 1586 associated with the declining purchasing power of their salaries. A. Raymond, "Les Provinces Arabes (XVI^e Siècle-XVIII^e Siècle)," in R. Mantran (ed.), *Histoire de L'Empire Ottoman* (Lille: Fayard, 1989), 398. For important insights into commercial conditions in Egypt at the end of the sixteenth and early seventeenth centuries, see Nelly Hanna, *Making Big Money in 1600, The Life and Times of Isma'il Abu Taqiyya, Egyptian Merchant* (Cairo: The American University in Cairo Press, 1998), 43–99.

²⁰ S. Lachman, "A Hoard of Medins," *The Numismatic Circular* 85 (1977), 425 and 482–84; S. Lachman, "The Medin," *Numismatic International Bulletin*, 13 (1979), 54–57; D. N. Norman, R. el-Nabarawy, and J. L. Bacharach, *Catalog of the Islamic Coins, Glass Weights, Dies, and Medals in the Egyptian National Library of Cairo* (Malibu, CA: Undena Publications, 1982), 119–24; also Schaendlinger, *Osmanische Numismatik*, 73.

Table 6.2. *Exchange rates for Ottoman silver currencies, 1570–1600*

	1570	1600
Ducat in akçes	65–70	120
Ducat in medin or paras	41–43	45–48?
Ducat in shahis	8	15?
Medin in akçes	1.5	2.5?
Shahi in akçes	7–8	7–10
Shahi in paras	5.0	3.0?
Crimean akçe in akçes	9–10	–
Laris in medins	6.5	–
Ducat in nasris	60–70?	80

Sources See the text.

rate between the medin and akçe changed some time after the Ottoman debasement of 1585–86. Most likely, this rate fluctuated due to the instability of the akçe until 1640 and then settled at three akçes per para. The para coins that began to be issued in Istanbul and elsewhere in the Empire in the first half of the seventeenth century contained three times as much silver as the akçe.²¹ The Ottoman administration also resumed the minting of copper coinage called *fulus*, immediately after the conquest of Egypt.²² (See figures, 10, 11, 12, and 14.)

For centuries, Egypt had enjoyed large inflows of gold from Takrur, as Arab geographers termed the region of sub-Saharan Africa stretching from present day Sudan in the east to Senegal in the west. These flows had continued during the fifteenth century and supported the production of Mameluk ashrafis.²³ Continued gold flows from the south turned Cairo into one of the leading centers of gold coinage for the Ottoman Empire during the sixteenth century. The Ottoman gold pieces minted in Egypt had the same standards as those elsewhere in the Empire and they came to be called

²¹ For the medin in the seventeenth century, see A. Raymond, *Artisans et Commerçants au Caire au XVIIIe Siècle*, 2 vols. (Damascus: Institut Français de Damas, 1973–74), vol. I, chapter 1. For large sums appearing in the Ottoman financial registers originating in Egypt, a new unit of account came into use in the seventeenth century, the *kese-i Misri* (“Egyptian purse”) which equaled 25,000 paras. The *kese* was also used for *akçes* elsewhere in the Empire, with the *kese-i Rumi* equalling 50,000 akçes. The *kese-i Misri* of 25,000 paras equalled 60,000 akçes regardless of the exchange rate between the two units.

²² G. Oman, “Remarques sur la Première Monnaie Ottomane en Cuivre Frappée au Caire en l’an 926/1520,” *Journal of the Economic and Social History of the Orient* 9 (1966), 297–302; and A. Berman, “The Beginning of Ottoman Coinage in Egypt,” *The Numismatic Circular* 83 (1975), 150–52.

²³ Spufford, *Money and its Use*, 367–69; T. Walz, “Gold and Silver Exchanges between Egypt and Sudan, Sixteenth and Seventeenth Centuries,” in J. F. Richards (ed.), *Precious Metals in the Later Medieval and Early Modern Worlds* (Durham: NC: Carolina Academic Press, 1983), 309–11; and Bacharach, “Monetary Movements”; the Ottoman *kanunname* for Egypt dated 1524 refers explicitly to gold inflows from Takrur; see Barkan, *Zirai Ekonomi*, 386.

şerifi. The *şerifi* had the same standards as the *ashrafi* since they both followed the prevailing standards across the Mediterranean. During most of the sixteenth century, the *şerifs* minted at Cairo exchanged at par against the *sultani* minted elsewhere in the Empire.²⁴ (See figure 21.)

The principal mechanism for the shipment of the gold coins minted in Cairo to the rest of the Empire was the annual payment from Egypt to the imperial treasury in Istanbul. In addition to shipping sugar, rice, coffee, and other commodities to the capital city, Cairo sent to Istanbul large cash payments every year called *irsaliyye-i hazine*, or remittance of the treasury. During the sixteenth century, this amount fluctuated around 400,000 to 500,000 gold pieces, or 16 to 20 million paras at the prevailing rate of exchange of 40 paras per *sultani*. This was a huge sum by the standards of the sixteenth century and it was a major addition to the annual receipts of the imperial treasury, even at the zenith of its power.²⁵ Stanford Shaw provides an account of the early evolution of this payment:

In the early period of Ottoman rule . . . the yearly remittances were set at 500,000 gold pieces . . . After the appointment of Hosrev Paşa as *vali* (governor) of Egypt, the annual remittances were raised to 700,000 gold pieces or 28 million paras a year, at his own request and in the year 1535–36 he sent to Istanbul more than one million gold pieces. When it arrived in Istanbul, however, the Sultan (Süleyman I) refused to accept it saying that it was too much and expressing the fear that it had been taken tyrannically from the poor. Hosrev Paşa had hoped to impress his master by the attention of his collections, and he replied that he had been able to collect that much by special efforts in the border regions of Egypt. But the Sultan ordered that the money collected in such a way could be spent only for the water cisterns of the Muslims in the Porte and the Holy cities, and that thereafter the *irsaliyye-i hazine* should be no more than 500,000 gold pieces, every year.²⁶

While gold flowed from Egypt to Istanbul, silver entered Egypt from Europe because of the trade surpluses in that direction. However, as was the case with other regions of the Empire, silver continued to flow east from Egypt, towards the Indian Ocean because of trade deficits in that direction.

This pattern of payment and specie flows changed substantially during the seventeenth century. The annual remittance to Istanbul began to be sent mostly in silver. This shift suggests that gold flows from the south slowed down after the sixteenth century, if not earlier. As political and administrative disorders caused revenues in Egypt to decline and Istanbul's control over Egypt disappeared, however, for many years until the last quarter of the seventeenth century, nothing at all was sent to the capital.²⁷ Gold

²⁴ The other leading mints in gold coinage in the sixteenth century were Istanbul and Sidrekapsı in Macedonia; see Kocaer, *Osmanlı*; and N. Pere, *Osmanlılarda Madeni Paralar* (Istanbul: Doğan Kardeş Matbaacılık, 1968).

²⁵ S. J. Shaw, *Financial and Administrative*, 283–312.

²⁶ Shaw, *Financial and Administrative*, 284.

²⁷ Shaw, *Financial and Administrative*, 284–87.

coinage from Cairo regained its prominence in Istanbul in the late seventeenth and early eighteenth century suggesting that gold flows from the south to Cairo resumed around this time if not earlier.²⁸

Foreign coins circulated extensively in Egypt. The Venetian gold ducat called *bunduk* or naturalized as *şerifi bunduk* was the leading foreign coin until late in the sixteenth century. In the seventeenth century, the leading European coins were the Spanish eight-real piece, known as the *riyal gurus* and more importantly, the Dutch thaler or lion dollar also known as *esedi gurus* or *aslanlı gurus* or *ebu kalb* apparently because the lion on the coin was referred to as a dog.²⁹ (See figures 23 and 24.)

The circulation of the para or medin and the gold *şerifis* was not limited to Egypt, however. During the sixteenth and seventeenth centuries the medins were struck in a large number of mints over a broad geographical area stretching from Syria, Palestine, eastern Anatolia, Iraq, Yemen, to Tripoli, Tunis, and Algiers. After Cairo, Damascus, Aleppo, and Amid (Diyarbakır) in southeastern Anatolia became the leading mints producing medins.³⁰ In Syria, Palestine, and to a lesser extent, southeastern Anatolia and Iraq, the medin circulated together with other Ottoman silver coins, namely the akçe which was frequently called the *osmani* in these regions, and the *shahi*, also known amongst numismatists as *dirham*, which was the leading Ottoman silver unit in the provinces of Mosul and Bagdad.³¹ During the second half of the sixteenth century, the mints in Damascus, Aleppo, and Amid minted all three of these units. Gold sultanis as well as copper coins were also minted and circulated in all of these regions.³² (See map I.) In addition, European coins circulated in all of these areas. The latter increased in importance in the second half of the sixteenth century and reached its peak during the seventeenth century.³³

The well-studied case of Palestine is interesting and instructive. During the early years of the Ottoman period, *qıta halabiyya* (Aleppo piece), most likely a former coin, was the leading money of account in the court registers

²⁸ See chapter 11, pp. 174–76.

²⁹ P. Masson, *Le Commerce Français dans le Levant au XVIIe Siècle* (Paris, 1986), 492–97. In the early decades of the seventeenth century, one gurus equalled 30 medins or nisfs. Hanna, *Making Big Money*, 60–99.

³⁰ See, for example, Schaendlinger, *Osmanische Numismatik*, 96–115, which provides an incomplete but reasonably good list.

³¹ For *shahi*, see pp. 101–4 below.

³² The court records are often used to obtain information on the types of coinage in circulation in the Ottoman provinces and their exchange rates. Caution is necessary in the use of these documents for the purposes of monetary history, however, as it is often difficult to differentiate, in these records, a unit of account from a specific coin as a means of exchange. In most of the official documents related to sixteenth-century Syria, for example, the akçe appeared as the unit of account but not necessarily as an actual coin. For the details in the case of Damascus at the end of the sixteenth century, see J. P. Pascual, *Damas à la Fin du XVIIe Siècle* (Damascus: Institut Français de Damas, 1983), 121–22.

³³ For the growing importance of European coins in the seventeenth century, also see chapters 8 and 9.

of Jerusalem. Gradually, however, the para began to establish itself and the *halabiyya* was replaced completely by the 1560s.³⁴ Towards the end of the century, the akçe or the *osmani*, became the unit of account although the coins actually used were most often the para minted in Cairo, Damascus, or Aleppo. Court registers and other official documents in Palestine mostly give 2.0 as the rate of exchange between the akçe and the para.³⁵ (See table 6.2). The para, or medin, or *qt'a Mısriyye* (Egyptian piece) remained the main Ottoman coin used in Palestine during the seventeenth century. Around the middle of the seventeenth century, the para minted at Damascus (*qt'a şamiyye*) was apparently a smaller coin and was valued at three fourths of the Egyptian para. However, large European silver coinage, especially the Dutch lion thalers and to a lesser extent the Spanish eight-real piece became increasingly more important during this period.³⁶

The Ottomans also controlled and minted coinage in Yemen from the 1510s until the 1620s. Zabid and Sana were the most active mints during this century. While the gold coinage adhered to the standards of the *sultani*, the silver coinage included medins, and to a lesser extent, akçes (osmanis) as well as *buqshahs*, *kabirs*, and undetermined others. A large part of the silver coins were often heavily debased and did not follow any standard. The debased coinage contributed to the political instability in Yemen and occasionally necessitated the military intervention of the government in Cairo. In addition, copper coinage was produced for local use. Dutch lion thalers and Spanish eight-real pieces were the leading coinage used in trade.³⁷ (See figure 13.)

The Holy Places in Hijaz and the pilgrimage to Mecca gave rise every year to one of the largest payments and specie flows within the Ottoman Empire. The financing of the caravans including provisioning, payments to tribal leaders en route for security and funds carried by tens of thousands, and in some years close to 100,000 pilgrims gave rise to large flows of gold and silver from Egypt, Syria, and Anatolia to the Hijaz every year. Even

³⁴ The *halabiyya* or the akçe of Aleppo was also mentioned in the court records and tax registers of the *sanjak* (district) of Aleppo during the first half of the sixteenth century. Its exchange rate was usually given at two-and-a-half Ottoman akçes. See M. L. Venzke, "The Sixteenth Century *Sanjaq* of Aleppo: a Study of Provincial Taxation", Ph.D. dissertation, Columbia University, New York, NY, 1981, 385–88.

³⁵ In the same registers, the gold *sultani* was valued at 40 paras and 80 akçes until the 1580s. On the basis of its silver content, then, the akçe appears undervalued in Palestine. (Compare with tables 6.1 and 6.2); also see A. Cohen, *Economic Life in Ottoman Jerusalem* (Cambridge University Press, 1989), 48–53; and A. Singer, *Palestinian Peasants and Ottoman Officials: Rural Administration around Sixteenth-Century Jerusalem* (Cambridge University Press, 1993), xvi–xvii.

³⁶ For exchange rates of the European silver coins during the seventeenth century, see table 8.3 in chapter 8.

³⁷ V. Poop, R. Puin, and H. Wilski, "Ottoman Coins of the Yemen," in *A Festschrift Presented to Ibrahim Artuk on the Occasion of the Twentieth Anniversary of the Turkish Numismatic Society* (Istanbul: The Turkish Numismatic Society, 1988), 251–62; S. Album, *A Checklist of Islamic Coins*, second edition (Santa Rosa, CA: S. Album, 1998) 59.

more importantly, the governments in Istanbul and Egypt and the various official, semi-official, and private foundations sent large sums every year to support the Holy Cities. In her detailed study, Suraiya Faroqhi estimates that official remittances from Cairo and Istanbul were roughly equal in magnitude, fluctuating mostly between 50,000 and 100,000 gold sultanis per year from each during the sixteenth and first half of the seventeenth centuries. In addition, the annual revenues of many small and large pious foundations (*vakıf*) in Anatolia and some of the largest foundations in Egypt and were set aside for the Hijaz. Total remittances by the foundations roughly equaled the amounts sent by the governments in Istanbul and Cairo. From Egypt, some of these net revenues were sent in kind, as cereals. Faroqhi thus estimates that a total of 300,000 to 400,000 sultanis were sent to the Hijaz every year from Istanbul, Anatolia, and Egypt combined in addition to the payments and specie flows arising from the pilgrimage caravans themselves. The funds in cash were sent in gold whenever available, because gold was the preferred specie in the Hijaz.³⁸ Annual payments flows to the Hijaz were not as large as government spending on military campaigns in the Balkans which exceeded 600 thousand gold pieces excluding payments to the soldiers and reached 2 to 3 million gold pieces in one year including payments to the soldiers; but they were huge by any other standard.³⁹ The size of the flows to the Hijaz, from both official and private sources also gives a good indication of the importance attached to the Holy Places by the Ottoman government and society at large.

The shahi zone

With the territorial expansion into eastern Anatolia in the second half of the fifteenth century, the Ottoman state moved, for the first time, into regions which were part of the Iranian and Indian tradition of using larger silver coins. In contrast to western and central Anatolia where large silver coins had disappeared after the Ilkhanids in the early part of the fourteenth century and where multiples of the one-gram akçe were minted only rarely, larger silver coins were produced and circulated in eastern Anatolia, Iraq and other regions bordering Iran.⁴⁰

³⁸ S. Faroqhi, *Pilgrims and Sultans, The Hajj under the Ottomans 1517–1683* (London and New York, NY: I. B. Tauris Publishers, 1994), 74–91, 158–68.

³⁹ For estimates of payments flows associated with a war against the Habsburgs from 1599 to 1602, see pp. 93–95 above.

⁴⁰ One might speculate that the Ottoman's adoption of smaller silver coins in western and central Anatolia in the early part of the fourteenth century was due to the influence of medieval Mediterranean patterns, while Iran and its bordering regions retained the larger coins because of their continuing commercial links with northern India. Until the end of the thirteenth century, the Ilkhanids of Iran controlled the transit trade routes between Asia and Europe and helped maintain the interaction between the two regions. With the dissolution of the Ilkhanids, however, commodity trade declined and the contact between these two monetary traditions was disrupted. See also P. Grierson, *Numismatics* (Oxford University Press, 1975), 24–29 and 39–55.

During the fifteenth century the Akkoyunlu (White Sheep) state in eastern Anatolia had issued a variety of large coins called *tanga* whose origins went back to the Timurid period. It also produced a large silver coin named *shahrūkhi*, after Timur's son Shah Rukh, which weighed about 4.7 grams at the end of the century.⁴¹ Similarly, the most popular coins in Safavid Iran during the sixteenth century were silver pieces weighing around 4 grams variously called *tamga*, *shahi*, *mahmoudi*, and *double shahi*.⁴²

After the defeat of the Safavids and Ottoman expansion into southern Caucasus, eastern Anatolia, northern Iraq, and Mesopotamia early in the sixteenth century, the Ottomans began to produce the gold sultani in the leading mints of this region. At the same time, they decided to continue with the local tradition of large silver coins. These coins carried the inscription "shah" for the Ottoman ruler until 1555.⁴³ Even after this date, however, the local population continued to refer to them as *shahis* much to the consternation of the Ottoman authorities who tried in vain to have them called *padişahis*. Ottoman documents of the period used the term "padişahi."⁴⁴

⁴¹ B. Fragner, "Social and Internal Economic Affairs," in P. Jackson and L. Lockhart (eds.), *The Cambridge History of Iran*, vol. VI: *The Timurid and Safavid Periods* (Cambridge University Press, 1993), 556–567. This coin circulated in Bursa in the fifteenth century and is mentioned in the court records of that city. H. İnalçık, "Osmanlı idare, sosyal ve ekonomik tarihiyle ilgili belgeler: Bursa kadı Sicillerinden seçmeler," *Türk Tarih Kurumu Belgeler* 14 (1981), 1–91, *passim*; Sahillioğlu, "Osmanlı Para Tarihi Üzerine Bir Deneme," 140–148. In addition, the Ottoman *kanunnames* of Amid (Diyarbakır), Ergani, Çermik, Mardin, and Mousul all prepared in the early part of the sixteenth century mention the various dues in *shahrūkhis* that existed during the earlier era and then convert them to obligations in Ottoman akçe using an exchange rate of six akçe per *shahrūkhi*. Ö. L. Barkan, "Osmanlılar Devrinde Akkoyunlu Hükümdarı Uzun Hasan Bey'e ait Kanunlar," *Tarih Vesikaları Dergisi* 1 (1941), 91–106 and 184–97; Barkan, *Zirai Ekonomi*, 146–179 *passim*.

⁴² Fragner, "Social," 556–65; and H. L. Rabino, *Coins, Medals and Seals of the Shahs of Iran, 1500–1941* (Algiers: Borgomale, 1945), table II. Magalhaes Godinho asserts that the Ottoman *shahis* had been designed after the Persian *mahmoudis* which weighed approximately 4 grams. V. Magalhaes-Godinho, *L'Economie de l'Empire Portugais aux XVe et XVIe Siècles* (Paris: S.E.V.P.E.N, 1969), p. 303.

⁴³ The Ottomans stopped using the term "shah" in their gold coinage after the Treaty of Amasya they concluded with Shah Tahmasp in 1555. They continued to use the term on the silver *shahis* after that date, albeit less frequently. K. M. Mackenzie, "Gold coins of Suleyman the Magnificent from the mint at Sidre Qapsi," *Nomismatika Chronika* 10 (1991), 74; Pere, *Osmanlılarda*, 126–130.

⁴⁴ For an Ottoman document dated 1572 ordering the local authorities in Diyarbakır to make sure that the local population would call the coin "Selimi" after sultan Selim II and not *shahi*, see Ahmed Refik [Altınay] (ed.), *16. Asırda İstanbul Hayatı (1553–1591)* (Istanbul: Devlet Basımevi, 1935), 69. For another document dated 1573, see MHM. vol. 21, 478/200. In numismatic catalogues the standard term for these coins is dirham. See Pere, *Osmanlılarda*; and Schaedlinger, *Osmanische Numismatik*. The sixteenth century Ottoman *kanunnames* for these areas, including those for the province of Basra, used akçe as the unit of account even though akçe were not in circulation in the region. R. Mantran, "Règlements Fiscaux Ottomans; la Provence de Bassoura," *Journal of the Economic and Social History of the Orient* 10 (1967), 486–513. The Ottomans used the akçe as the unit of account in the provincial *kanunnames* irrespective of the actual coinage used locally. For other examples, see Barkan, *Zirai Ekonomi*, *passim*, and chapter 4, pp. 75–76 of this volume.

Although only a limited amount of the large shahis were minted initially, their volume expanded during the reign of Süleyman I (1520–66). Bagdad, Mosul, Amid, and Basra on the Gulf as well as Aleppo were the leading centers of minting activity. Other shahi-minting locations included Erzurum, Van, Revan, Tebriz and Nahcevan in present day Azerbaijan.⁴⁵ Shahi production reached its peak during the wars with Iran in the second half of the sixteenth century when large numbers of troops were present in the region.⁴⁶

The weights of the shahis now available in numismatic collections range from 3.4 to 4.65 grams. During the reign of Selim II (1566–74) the standard was around 4.0 grams.⁴⁷ The exchange rate varied from 6 akçes in the earlier part of the century to 8 akçes in the 1580s.⁴⁸ In the early 1580s before their debasement, the shahis also exchanged at 5 medins, and at 8 shahis against the gold sultani.⁴⁹ At these official rates, the shahis were overvalued in relation to their relative silver content. As a result, they drove away other coinage and became the preferred means of payment, especially in dealings with the state. There was some counterfeiting as well.⁵⁰ One can only speculate as to why the government chose to pursue this policy. This may have been part of a strategy to support the Ottoman shahi against rival coinage across the border. An overvalued currency may have also been used as a mechanism for preventing the outflow of specie to Iran and even attracting silver from that direction.⁵¹ The weight and the silver content of the shahi remained as stable as the akçe until the 1580s, and following the debasement of the latter in 1585–86, the shahi underwent a debasement of similar proportions. The weights of the available *shahi* coins minted during

⁴⁵ Schaendlinger, *Osmanische Numismatik*, pp. 95–114. Shahis were also minted regularly in Damascus but it is not clear whether the volume was significant.

⁴⁶ For examples of archival documents concerning the minting, circulation and exchange rate of shahis, see, BOA, MHM. vol. XLVIII, 116/41, 158/55, 853/291; vol. XLVIX, 249/71; vol. LIII, 810/280 and 882/309; vol. LV, 299/167.

⁴⁷ Pere, *Osmanlılarda*, 121–9.

⁴⁸ Sahillioğlu, “Osmanlı Para Tarihi,” 89–91.

⁴⁹ Pascual, *Damas*, 121–22.

⁵⁰ Sahillioğlu, “Osmanlı para tarihi,” 89–91. The overvaluation of the shahis increased their mobility across the Empire. Shahis minted in Bagdad, Aleppo, Damascus, and especially in eastern Anatolia circulated widely in Moldavia and Wallachia during the last two decades of the sixteenth century. These coins arrived at the principalities when exports from these areas to Istanbul were paid with shahis. They were promptly returned, however, with the tribute payments of these principalities. The quantities involved were considerable. For example, the Wallachian payments for the tribute of 1588–89 contained more than 926,000 pieces, and the Moldavian tribute for the same year included 255,000 pieces of shahis. See pp. 92–93 above.

⁵¹ A study of the exchange-rate policies of the Ottoman and Safavid governments during the sixteenth century including the massive Ottoman debasement of 1585–86 could provide interesting insights into how these states tried to cope with specie flows. For further details, see chapter 8, pp. 137–38.

the last decade of the century vary from 2.2 to 3.1 grams.⁵² (See figures 15 and 16.)

Shahi production declined substantially after the first decade of the seventeenth century. Most of the mints were closed down and Bagdad remained the only significant mint until the end of the century. One reason for this trend was the cessation of hostilities and the decline in the numbers of troops stationed in the region. The decline in shahi production was also due to the difficulties in locating supplies of silver and the inability of the government to control the quality of coinage, as was the case with akçe production during the seventeenth century.⁵³

During the war against Iran in the early decades of the eighteenth century, the Ottoman government reverted once again to the practice of issuing coinage with standards inspired by those circulating across the border. In all newly occupied regions as well as those bordering on Iran, from Tiflis and Azerbaijan in the north to Tebriz and Bagdad in the south, the Ottomans minted two coins, weighing 2.7 and 5.3 grams respectively. These weights had no relation to other Ottoman coins circulating elsewhere in the Empire at the time. It is not entirely clear whether these coins were called shahis and double shahis but the larger coin was apparently minted to compete with the popular 200 dinar coins of Iran called *abbasi* which weighed 4.7 to 5.4 grams.⁵⁴

Another important silver piece struck in the Basra province by the Ottomans was the *lari* used in the Gulf and on the Indian Ocean during the sixteenth century. The *lari* was an unusual type of money, a small rod of pure silver the size of the “pen of a goose feather,” but twisted and folded in the middle so that the two ends met. At the head was a stamp with the inscriptions of the mint. Its origins went back to the region of Laristan, which was on the Hormuz–Shiraz caravan route on the Persian side of the Gulf. The *laris* began to be minted in the fourteenth century and became increasingly popular as a medium of payment in long-distance commerce on the Indian Ocean. In the Gulf area, the *laris* were the leading form of payment for goods arriving from the east. The *laris* did not circulate inland in large quantities, however.⁵⁵ (See figure 17.)

In the early part of the sixteenth century, the *laris* were regularly minted at Basra which had emerged as a prosperous port on the transit trade routes linking the Indian Ocean with the Mediterranean. After the Ottomans took

⁵² Schaendlinger, *Osmanische Numismatik*, 73; Pere, *Osmanlılarda*, 120–36.

⁵³ For decline of mint activity in the akçe region during the seventeenth century, see chapter 8.

⁵⁴ For speculation on the standards of this coinage, see S. Lachman, “The Ottoman Silver Coinage in Armenia, Azerbaijan, Georgia during the Reigns of Ahmad III and Mahmud I,” *The Numismatic Circular* 84 (1976), 51–53; and N. du Quesne-Bird, “The Turkish Coinage of the Caucasus, 1723–1735,” *The Numismatic Circular* 84 (1976), 192–93; also Schaendlinger, *Osmanische Numismatik*, pp. 115–118. For the standards of Iranian coinage at the time, see Rabino, *Coins*, table II; and Album, *Checklist*, 130–131.

⁵⁵ Godinho, *L'Economie*, 299–304.

control of the port city from the Safavids in the middle of the century, they continued the production of *laris*.⁵⁶ They also tried to put an end to the commercial linkages the Portuguese had developed in Basra and around the Gulf. Occasionally as in the late 1570s, the Ottomans prohibited the minting of the *laris*, as part of attempts to prevent the outflow of specie to the east. These efforts were not very effective, however, in slowing down the outflow.⁵⁷ After 1525, the *lari* weighed 5.2 grams of exceptionally pure silver. Its exchange rate in the 1580s was given at 6.5 medins of Aleppo and one-and-a-half Spanish reals.⁵⁸

The Crimean akçe

The exact nature of the relationship between the Crimean Khanate and the Ottoman state, to what extent the khan was a sovereign and heir to the political traditions of the steppe and to what extent he was a vassal of the Ottoman sultan, has long been debated. It is clear, however, that the Khanate enjoyed a unique relationship and status amongst all territories considered as part of the Ottoman Empire. After the incorporation of Crimea into the Ottoman lands in 1478, Caffa and part of the Crimean shore simply became another Ottoman province. The rest of the peninsula continued to be ruled by a hereditary family of khans who joined the Ottoman army as tributary, providing manpower during military campaigns. Although the Ottomans played a role in the choice of the khans, they usually accepted the selection made by the Crimean aristocracy.⁵⁹

The Crimean khans continued to display one of the most important symbols of steppe sovereignty, the Cengiz seal (*tamga*). They also retained the right to maintain diplomatic relations with Muscovy and Poland. Until the end of the seventeenth century, the Khanate received tributes of varying amounts directly from Muscovy, Poland, and the Danubian Principalities. The relationship between the Crimean coinage and the Ottoman monetary system was thus unique. The Crimean khans minted their own silver coins bearing the seal of the Giray dynasty without the name of the Ottoman sultans. Yet, they were not sufficiently independent to mint their own gold coins, the ultimate symbol of sovereignty. The Ottoman gold *sultani* was

⁵⁶ For the permission by the central government to the governor of Bagdad to begin minting *laris*, see BOA, MHM. vol. III, 616/220 dated 967 H. (1560).

⁵⁷ See D. R. Khoury, "Merchants and Trade in Early Modern Iraq," *New Perspectives on Turkey* 5–6 (Special Issue on Ottoman Trade) (1991), 58–67, for the trade of Basra during the sixteenth and seventeenth centuries.

⁵⁸ Godinho, *L'Economie*, 299–304. The large *riyal gurush* which became very popular in the Ottoman Empire in the seventeenth century was the eight-real piece. Godinho also provides exchange rates for the *laris* in terms of the currencies that dominated the Indian Ocean trade.

⁵⁹ A. W. Fisher, *The Crimean Tatars* (Stanford, CA: Hoover Institution Press, 1978), 1–36; and H. İnalçık, "Yeni Vesikalara Göre Kırım Hanlığı'nın Osmanlı Tabiliğine Girmesi ve Ahidname Meselesi," *Belleten* 31 (1944), 185–229.

never minted in Crimea either.⁶⁰ During the century following the Ottoman conquest, the khans discontinued the use of adjectives such as “sultan” and various expressions of sovereignty used earlier and displayed only their names on the coins. They resumed the use of the term “sultan” and “khan” in the second half of the sixteenth century, however.⁶¹ The Crimean coinage was only loosely related to the Ottoman monetary system even though Crimea was considered part of the Ottoman Empire in some senses of the term.⁶²

The basic coin and the leading unit of account in Crimea during the Ottoman period was a small silver coin called *akçe*, which was referred to in the Ottoman sources as *Kefevis akçe* (the *akçe* of Caffa) although *akçes* were also minted elsewhere in Crimea, most notably in the city of Eski Kırım, Kırım (Solgat) and Kırk Yer. The first known silver coin minted by the Crimean khans goes back to 1441–42. The *Kefevis akçe* was widely used in commercial transactions. Court documents from Bursa in the 1480s, for example, cite commercial transactions and debt in *Kefevis akçes* two of which equaled one Ottoman *akçe*.⁶³ During the sixteenth century the *Kefevis akçe* was smaller in weight than the Ottoman *akçe*. Its official exchange rate against the *akçe* varied considerably, from two to five and as low as eleven for one Ottoman *akçe*, indicating increasing alloy and declining silver content. However, the Crimean silver coinage fared better than the Ottoman *akçe* and its exchange rate against the *osmani* rose during the seventeenth century.⁶⁴

One interesting aspect of the *Kefevis akçe* is that the Ottoman government applied different exchange rates to these coins depending upon the context in which they were being used. In the 1540s, for example, according to the register of the province of Caffa, the Ottoman government used the exchange rate of two *Kefevis akçes* per Ottoman *akçe* in payments to the khan, the Tatar and Circassian beys, and to the Ottoman soldiers. In payments made to the Ottoman treasury five *Kefevis akçes* were accepted as one Ottoman *akçe*. Clearly, this policy was beneficial to the Ottoman treasury. In imports of foodstuffs such as grains, meat, fish oil, and salt

⁶⁰ Fisher, *Crimean Tatars*, 8–19. For the trade of Crimea during the Ottoman period, see G. Veinstein, “From the Italians to the Ottomans: the Case of the Northern Black Sea Coast in the Sixteenth Century,” *Mediterranean Historical Review* 1 (1986), 226–31.

⁶¹ N. Agat, “Kırım Hanlarının Paralarının Nitelikleri ve Işık Tuttukları Bazı Tarihi Gerçekler”, reprints of three earlier articles, *The Turkish Numismatic Society Bülten* 7 (1982), 14–15.

⁶² It may be useful to compare the status of the Crimean Khanate in monetary affairs with those of the principalities of Wallachia and Moldavia which were also autonomous in their internal affairs. In the principalities, too, gold coins, Ottoman or otherwise, were not issued. Crimean autonomy in monetary affairs was greater, however, since the khans issued silver and copper coinage with their own name but the principalities did not.

⁶³ H. İnalçık, *The History of the Black Sea Trade: the Register of Customs of Caffa* (Cambridge, MA, 1993), 151.

⁶⁴ Sahillioğlu, “Osmanlı Para Tarihi”, 93.

from Crimea for the provisioning of Istanbul, the Ottoman state similarly used an advantageous exchange rate apparently in an attempt to lower the cost of these goods.⁶⁵ This multiple rate system, which caused problems in trade and monetary markets, amounted to a tax, of course, and reflected the tributary relationship between the Khanate and Istanbul.⁶⁶ At the same time, however, the khans regularly received large donations of various sorts from Istanbul for their military and other services.⁶⁷

The small akçe remained the basic coin of the Khanate until late in the eighteenth century. While larger coins such as the six-akçe piece as well as copper coinage were also minted in later periods, these could not meet the demands of trade and the economy. Larger European coinage such as the Dutch thaler, Spanish eight-real piece and a Polish coin locally called *zolota* circulated extensively in Crimea during the seventeenth century.⁶⁸

The Maghrib

Northwest Africa stretching from Tripolitania in the east to Algeria in the west was the scene of a major struggle between the Ottoman and the Spanish empires during the sixteenth century. Algeria, Tunisia, and Tripolitania were eventually incorporated under Ottoman rule thanks to the military power of the corsair leaders. The Ottoman government then appointed governors or *beylerbeyis* to each of these territories. However, they were actually ruled by the corsair leaders and the leaders of the janissaries who rose through the ranks after being recruited from Anatolia as ordinary soldiers.

Until the eighteenth century these local governments limited their rule to the coast and urban areas. They collected taxes from the peasants and nomadic tribes in the interior, but beyond that, did not intervene in the internal affairs of the rural population. They directed their efforts to privateering which prospered because of the weakness of the European navies in the Mediterranean.⁶⁹

Recent research has shown that the commercial linkages between these

⁶⁵ İnalçık, *History*, 151–54.

⁶⁶ For example, the official exchange rate of the Kefevi akçe was set at 300 per ducat by the government in 1577 instead of the prevailing market rate of 600 per ducat. See BOA, MHM. vol. XXIX, 397/164 and 440/186; vol. XXXI, 785/353. The government soon had to retract that rate and accept the market rate because of the disruption of trade and losses incurred by merchants; see BOA, MHM. vol. XXXIV, 159/79 and 371/177.

⁶⁷ Fisher, *Crimean Tatars*, 28.

⁶⁸ Agat, "Kırım Hanlarının Paraları," 18–28.

⁶⁹ J. M. Abun-Nasr, *A History of the Maghrib in the Islamic Period* (Cambridge University Press, 1987), 144–205; Raymond, "Provinces Arabes," 404–07 and 412–14; R. Mantran, "Le Statut de l'Algérie, de la Tunisie et de la Tripolitaine dans l'Empire Ottoman," *Atti del I Congresso Internazionale di Studi Nord Africani*, Facoltà di Scienze Politiche, Cagliari, 1965, 3–14; Andrew Hess, *The Forgotten Frontier, a History of the Sixteenth Century Ibero-African Frontier* (Chicago, IL: University of Chicago Press, 1978).

areas and Europe prospered during the seventeenth and eighteenth centuries.⁷⁰ In addition to their immediate neighbors, Sicilians, Maltese, Neapolitans, and Calabrians who often called on these ports, English, Dutch and, above all, French merchants settled permanently in the ports and helped turn them into active centers of commerce.

The Ottoman government regarded these territories as distant provinces with continuing links to Istanbul. The provinces, however, behaved more like autonomous states. The autonomy was made easier by their remoteness and the increasing weakness of the Ottoman state. Nonetheless, the rulers of these provinces were reluctant to sever all ties to Istanbul and declare complete independence. In addition to religious and political reasons of legitimacy, they needed to continue recruiting soldiers from Anatolia. For that, the good will and permission of the Istanbul government was essential.

Since the Maghrib did not possess any silver or gold mines, the availability of specie and mint output depended primarily on external trade balances and revenues from corsairing. The Mediterranean trade was the most important but the territories also had access to sub-Saharan gold through the caravan trade with that region. The gold output of the mints in Algiers, Tunis, and to a lesser extent Tripoli depended, above all, on these inflows of gold from the south.

The coinage minted in these provinces carried the name of the Ottoman sultan until the nineteenth century. The monetary practices of these three provinces and their relations to the monetary system of the Empire should provide not only important clues regarding the nature of the Ottoman monetary system but also insights into the nature of institutions across the large empire.

Algeria

Gold sultanis began to be minted in Algiers in the 1520s soon after the Turkish corsairs obtained control of the city. Thanks to its trading links and access to Saharan gold, Algiers soon became one of the leading locations for sultani production in the Empire.⁷¹ In the second half of the sixteenth century, there emerged another mint in Algeria issuing gold coins in the name of the Ottoman sultan. The conquest of Oran in the west by the Spanish in 1509 and of Algiers by the Ottomans in 1516 had left the Ziyamid rulers of Tilimsan in an ambiguous position between these two powers. After nominal rule by the Ziyamid until the middle of the century, the Ottomans took over appointing a new governor in 1556. There followed a

⁷⁰ On the European trade of the Regency of Tunis, for example, see S. Boubaker, *La Régence de Tunis au XVIIe Siècle: ses Relations Commerciales avec les Ports de l'Europe Méditerranéenne, Marseilles et Livourne* (Zaghouan: Ceroma, 1987).

⁷¹ Kocaer, *Osmanlı*; Pere, *Osmanlılarda*, 109–59; and Schaendlinger, *Osmanische Numismatik*, 96–113.

series of gold coins until 1603 struck in the names of the Ottoman sultans but not adhering to the standards of the sultani. The general design of the Tilimsan gold coins followed the twelfth century pattern introduced by the Muwahhids which subsequently became the standard for all Maghribi gold coinage until the sixteenth century. This difference between Tilimsan and Algiers gold coinage may be due to a difference in the administrative status of the two places, but the nature of Ottoman administration in Tilimsan has not been adequately studied.⁷²

In contrast to gold, issues of mostly square-shaped silver coinage called akçe or asper remained limited in Algeria until the eighteenth century. Their silver content declined during the sixteenth century judging from the sliding exchange rate against the sultani and European coins. In 1580, 175 akçes exchanged for one sultani; by 1617, one sultani equaled 350 akçes. Copper coinage called harruba or “bourbe” by Europeans was also issued. These coins were initially issued in fractions of the akçe but with the depreciation of the latter, the nominal values of copper coinage were raised.⁷³ (See figures 20 and 22.)

The Spanish eight-real piece or the piaster emerged as the leading means of exchange in Algeria during the early part of the seventeenth century. Its exchange rate remained unchanged at 232 akçes for most of the seventeenth century.⁷⁴ However, this constant rate should not be taken as a sign of stability of the silver coin. Much more likely, the square akçe disappeared mostly or entirely and remained a unit of account until the end of the seventeenth century.

Tunis

The corsairs first captured Tunis and began to issue coins in the name of the Ottoman sultans in the 1530s. However, continuous Ottoman rule in Tunis began in 1574. Gold coins began to be minted early on, but their production was less regular and smaller in volume than at Algiers. In silver and copper coinage, the Ottomans continued the local traditions. Small square silver coins called *nasri*, which dated back to the Almohad ruler Muhammed al-Naser in the early thirteenth century and which continued to be minted during the Hafsid period, remained the leading coin in Tunis for daily transactions.⁷⁵ The *nasri* which was also called the asper by the European merchants was minted in large volumes until some time in the seventeenth

⁷² H. Arroyo, “The Ottoman Coinage of Tilimsan,” *Oriental Numismatic Society Occasional Paper* 12, 1979; and M. L. Bates, “The Ottoman Coinage of Tilimsan,” *The American Numismatic Society Museum Notes* 26 (1981), 203–14.

⁷³ L. Merouche, “Les Fluctuations de la Monnaie dans L’Algérie Ottomane,” in Abdeljelil Temimi (ed.), *Mélanges Charles-Robert Ageron* (Zaghuan: FTERSI, 1996), 611–18; also Pere, *Osmanlılarda*, 129; and Schaendlinger, *Osmanische Numismatik*, 96–115.

⁷⁴ Merouche, “Fluctuations,” 613–18.

⁷⁵ M. Broome, *A Handbook of Islamic Coins* (London: Seaby, 1985), 143–53; and H. W.

century. Its weight of about 0.6 grams in the sixteenth century was roughly comparable to that of the akçe. The nasri weighed about 0.45 grams early in the seventeenth century. The sultani exchanged for 80 *nasris* or about one and one-half of a Spanish eight-real piece early in the seventeenth century. The exchange rate of the sultani rose to 104 *nasris*, or about two eight real pieces, late in the century. By the end of the century, however, the sultani did not circulate; they were reduced to a unit of account.⁷⁶ (See figure 19.)

The small nasri and the infrequently minted sultani could not meet the local demand for money, however. Other gold pieces, such as the Spanish gold *ecu*, the Venetian ducat and gold pieces of Sicilia, Malta, Toscania also circulated in Tunis.⁷⁷ Beginning late in the sixteenth century, gold coinage was increasingly replaced by silver and the Spanish eight-real piece established itself as the leading coin and form of payment for medium and large transactions in Tunis including the interior.⁷⁸ In the early part of the seventeenth century, it also became the basic unit of account when the local nasri was linked to it at the fixed rate of 52. Beginning in the 1630s there also emerged a Tunisian unit of account, called the Tunisian *riyal* which was linked to the Spanish piaster at par.⁷⁹

This official linkage between the Spanish unit and what emerged as the unit of account in Tunis may appear paradoxical because Spain was the very embodiment of the Christian enemy in the Maghrib. At the beginning of the seventeenth century, mention of the Sevillian piaster was still accompanied by the formula: “minted by the enemy of religion, the Christian, may god destroy him.”⁸⁰ Tunis, moreover, had little direct contact with Spain. The availability of the Spanish piaster as well as other coinage was determined not by direct contact but by trade and payments balances vis-à-vis Marseilles, Livorno, Genova, and other leading European ports. As a result, other large European silver coins also circulated in Tunis, one of the most prominent being the Dutch thaler.

The seventeenth century was a particularly difficult period for the Tunisian currency, as was the case in many locations around the Mediterranean and also in Istanbul. It became exceedingly difficult for the local monetary authorities to have access to large supplies of silver and to maintain a stable currency. The Tunisian markets were flooded by debased

Hazard, *The Numismatic History of Late Medieval North Africa* (New York, NY: American Numismatic Society, 1952).

⁷⁶ Sebag, “Monnaies,” 258–62; and Boubaker, *Régence de Tunis*, 78–79.

⁷⁷ P. Sebag, “Les Monnaies Tunisiennes au XVIIe Siècle,” *Revue des Etudes du Monde Musulman en Méditerranée*, No. 55–56, *Villes au Levant, Homages à André Raymond*, 1990, 258–59.

⁷⁸ Boubaker, *Régence de Tunis*, 78–79.

⁷⁹ Boubaker suggests that the linking of the Tunisian unit of account to the Spanish piaster may have been an official decision: *Régence de Tunis*, 79.

⁸⁰ L. Valensi, *Tunisian Peasants in the Eighteenth and Nineteenth Centuries* (Cambridge University Press, 1985), 211.

versions of the Spanish piaster as well as those of other European coins arriving from Marseilles and other ports. There is no doubt that these shortages of specie, the decline in local mint output and the scarcity of bills of credit hampered both local and international trade.

With the improvement of monetary conditions in the second half of the century, the Tunisian mint issued two different sets of round silver coins which were heavier than the nasris. One of these sets of coins which weighed about 3 grams was valued at one-fourth of the Tunisian riyal. A smaller coin of this type was also issued at one-eighth of the riyal. The other type of coin which weighed less than one gram was called *haruba*. It was issued in Tripoli as well as Tunis during the 1670s and 1680s.⁸¹ In addition, copper coinage called *fels* or *bourbe* with nominal values established at 1/12 of the nasri or 1/24 of the piaster were minted during the latter part of the seventeenth century.⁸²

Tripoli

In Tripolitania, coinage in the name of the Ottoman sultan began to be issued soon after the Turkish corsairs took control of the city in 1551. However, mint activity remained limited during the sixteenth and seventeenth centuries. The gold sultanis began to be issued in Tripoli during the reign of Selim II (1566–74) with the same standards as elsewhere in the Empire. They were issued fairly regularly but not in large volume until the end of the seventeenth century. The most important characteristics of silver coinage issued from the 1560s until the end of the seventeenth century are their variety and the absence of a stable, central coin. The square nasri, which was also called akçe, and the medin or para of Cairo were the most frequently issued coins. (See figure 18.) During the second half of the seventeenth century, the Tripoli mint began to produce harubas which continued into the eighteenth century. Copper coinage was also produced during the sixteenth and seventeenth centuries.⁸³

⁸¹ Schaendlinger, *Osmanische Numismatik*, 67–68.

⁸² Boubaker, *Régence de Tunis*, 81; and Sebag, “Monnaies,” 261.

⁸³ K. M. MacKenzie, “Coins of Tripoli: Fertile Field of study,” *World Coins* 7 (1983), 104–07; J. de Candia Farrugia, “Monnaies Frappées à Tripoli et à Gafsa par Dragut,” *Revue Tunisienne* 22 (1936), 85–95; Schaendlinger, *Osmanische Numismatik*, 96–115.

The Price Revolution in the Near East revisited

The Price Revolution of the sixteenth century has been the subject of one of the most enduring debates in European historiography and more recently in the historiography of the world economy. That European prices, expressed in grams of silver, increased by more than 100 percent, and in some countries, by more than 200 percent from the beginning of the sixteenth century to the middle of the seventeenth century has been well established and broadly accepted. It is also clear that not all prices rose at the same pace. Increases in agricultural prices outstripped all others. In countries which experienced currency debasements during this period, overall inflation was proportionately higher, reaching, in some cases, 600 percent or more for the entire period.¹

Since these price increases may appear limited in comparison to the standards of the twentieth century, some participants in the debate have questioned the term "Price Revolution."² Yet, to contemporaries these price increases seemed harsh and unprecedented in their severity. They were certainly not insignificant in relation to the ability of those societies, economies and institutions to withstand them. Much less is known, however, about trends in prices elsewhere in the Old World, most importantly in India and China.³

¹ See, for example, the collection of essays by P. H. Ramsey (ed.), *The Price Revolution in Sixteenth Century England* (London: Methuen and Co. Ltd, 1971), editor's introduction; F. Braudel and F. Spooner, "Prices in Europe from 1450 to 1750," in E. E. Rich and C. H. Wilson (eds.), *The Cambridge Economic History of Europe*, vol. IV (Cambridge University Press, 1967), 374–486; and P. Vilar, *A History of Gold and Money, 1450–1920* (London: New Left Books, 1976), chapters 16–21. Recently, David Hackett Fischer examined the great waves of inflation in a historical perspective encompassing many centuries. For him, the Price Revolution of the sixteenth century was the second of four major waves the first of which began late in the twelfth century and the fourth of which is currently in its late stages. See D. H. Fischer, *The Great Wave, Price Revolutions and the Rhythm of History* (Oxford and New York, NY: Oxford University Press, 1996), 65–116.

² C. Cipolla, "La Prétendue Revolution des Prix," *Annales, Economies, Sociétés, Civilisations* 10 (1955), 513–16.

³ For India, see I. Habib, "Monetary System and Prices," in I. Habib and T. Raychaudhuri (eds.), *The Cambridge Economic History of India*, vol. I (Cambridge University Press, 1982), 360–381; S. Moosvi, "The Silver Influx, Money Supply, Prices and Revenue Extraction in

Competing explanations

The debate about Europe, then, is not about whether these price increases took place, rather it revolves around their causes and consequences. With respect to the former, one side has argued, ever since Bodin in 1568 and even earlier, that the price increases were caused by an expansion in the money supply arising from the inflow of New World treasure into Spain.⁴ In the twentieth century, this argument has been elaborated by Earl J. Hamilton and adopted by the Annales School, and has more recently been reformulated by economic historians adhering to the quantity theory of money.⁵

Earl J. Hamilton's research in the Spanish archives of Seville generated a large body of new evidence in support of this linkage. Assuming a stable function of demand for money or velocity of circulation, he argued that the increase in the money supply first led to a rise in Spanish prices and then, through trade and the balance of payments deficits of that country, began to spread to others in Europe and eventually to the Near East and Asia.⁶ Fernand Braudel gave the idea his blessing in his book on the Mediterranean: "there is no possible doubt about the effect of the influx of gold and silver from the New World . . . the coincidence of the curve of influx of precious metals from the Americas and the curve of prices throughout the sixteenth century is so clear that there seems to be a physical, mechanical link between the two. Everything is governed by the increase in stocks of precious metals."⁷

Dennis Flynn reformulated the quantity theory explanation by adopting

Mughal India," *Journal of the Economic and Social History of the Orient* 30 (1987), 47–94; and S. Subrahmanyam, "Precious Metal Flows and Prices in Western and Southern Asia, 1500–1750: Some Comparative and Conjunctural Aspects," *Studies in History* 7 (1991), 79–105; and for China, W. S. Atwell, "International Bullion Flows and the Chinese Economy circa 1530–1650," *Past and Present* 95 (1982), 68–90.

⁴ On the strength of his *Response to the Paradoxes sur le fait des Monnoyes* of M. de Malestroict, Bodin has been designated the "discoverer" of the Quantity Theory of Money. J. A. Schumpeter, *History of Economic Analysis* (Oxford University Press, 1954), 311–12.

⁵ E. J. Hamilton, "American Treasure and the Rise of Capitalism (1500–1700)," *Economica* 9 (1929), 338–57; and E. J. Hamilton, *American Treasure and the Price Revolution in Spain, 1501–1650* (Cambridge, MA: Harvard University Press, 1934); F. Braudel, *The Mediterranean and the Mediterranean World in the Age of Philip II*, 2 vols. (London: William Collins and Sons, 1972), vol. I, pp. 462–542; F. C. Spooner, *The International Economy and Monetary Movements in France* (Cambridge, MA: Harvard University Press, 1972). For a recent restatement of the monetarist position, see D. Fisher, "The Price Revolution: a Monetary Interpretation," *The Journal of Economic History* 49 (1989), 883–902; see also D. O. Flynn, "Use and Misuse of the Quantity Theory of Money in Early Modern Historiography," in E. van Cauwenbergh and F. Irsigler (eds.), *Minting, Monetary Circulation and Exchange Rates* (Trier: Verlag Trier Historische Forschungen, 1984), 383–417; and D. O. Flynn, "The Microeconomics of Silver and East–West trade in the Early Modern Period," W. Fischer, R. M. McNinn and Jurgen Schneider (eds.), *The Emergence of a World Economy, 1500–1914* (Wiesbaden: Franz Steiner, 1986), 37–60.

⁶ Hamilton, "American Treasure," 338–57; and Hamilton, *Price Revolution in Spain*.

⁷ Fernand Braudel, *La Méditerranée et le Monde Méditerranéen à L'Epoque de Philippe II*, Paris, 1949, 426.

a theoretical framework known as the monetary approach to balance of payments. Emphasizing that a single price should prevail for each of the internationally traded goods, he argued that price increases in Spain caused by the specie inflows then raised prices and increased demand for money in other countries through the balance of payments effects even without the outflows of specie from Spain. Spanish inflation was thus transmitted to its trading partners whether or not bullion was actually exchanged. There was no need, therefore, to trace the volume and timing of the flows of silver from Spain and link those to the actual occurrence of inflation elsewhere.⁸ Flynn used the same argument to explain why Potosi silver is not observed in the coinage of many states in the Old World.⁹

Recently, however, this long line of reasoning, based on various versions of the quantity theory of money, has been seriously damaged. New evidence recently compiled by Michel Morineau about the arrival of specie in the Old World from newspaper accounts in the Low Countries shows that European receipts of New World treasure continued to increase during the seventeenth century even after prices had started to decline. His detailed reconstruction indicates that European silver imports rose from 200 to 250 metric tons per year during the first half of the seventeenth century to more than 300 tons per year during the second half of the century. These data directly contradict Hamilton's estimates primarily because he grossly underestimated the extent of smuggling. Since prices in Europe actually declined during the seventeenth century, these findings cast serious doubt on the orthodox monetarist position linking bullion inflows or bullion stock directly to the price level. At the very least, they show that the same quantity theory framework can not be applied to the seventeenth century.¹⁰

In their recent work, Dennis Flynn and Arturo Giraldez and Richard von

⁸ D. O. Flynn, "A New Perspective in the Spanish Price Revolution: the Monetary Approach to the Balance of Payments," *Explorations in Economic History* 15 (1978), 388–406; Carlo Cipolla had argued earlier that in Italy the price increases came much before the arrival of Spanish silver. Therefore, he had reasoned, the Italian inflation was due to non-monetary, internal causes. Cipolla, "La Prétendue," 513–16.

⁹ Flynn, "Use and Misuse," 401. It had been shown, on the basis of neutron activity analysis, that Potosi silver was used in the coinage of Spain but, surprisingly, not in the coinage of many other states in the Old World, including France, England, Persia, and the Ottoman Empire. A. A. Gordus, J. P. Gordus, E. Le Roy Ladurie, and D. Richet, "Le Potosi et la Physique Nucléaire," *Annales: Economies, Sociétés, Civilisations* 27 (1972), 1–35; and A. A. Gordus and J. P. Gordus, "Potosi Silver and Coinage of Early Modern Europe," in Hermann Kellenbenz (ed.), *Precious Metals in the Age of Expansion* (Stuttgart: Klett-Cotta, 1981), 225–41.

¹⁰ M. Morineau, *Incroyables Gazettes et Fabuleux Metaux: les Retours des Tresors Americains d'apres les gazettes Hollandaises (XVIe–XVIIIe siecles)* (New York and Paris: Cambridge University Press and Editions de la Maison des Sciences de l'Homme, 1985), 564; Arthur Attman and Ward Barrett's recent surveys of the current research on the intercontinental flows of specie confirms that Morineau's argument is essentially correct. A. Attman, *American Bullion in the European World Trade, 1600–1800* (Goteborg: 1986); and W. Barrett, "World Bullion Flows, 1450–1800," in James D. Tracy (ed.), *The Rise of Merchant Empires* (Cambridge University Press, 1990), 224–54.

Glahn have introduced a new and more global dimension to the monetarist approach to the Price Revolution and flows of specie. They argue that precious metal flows from Europe to Asia have long been attributed to Europe's trade deficits vis-à-vis Asia. In this framework, European demand for Asian products was dynamic while Asian demand for European products was weak or passive. Precious metals had to flow east as a result of the European trade deficit. In fact, they argue, it was not all precious metals but only silver that flowed consistently, not to Asia but specifically to China through both Europe and the Pacific and also from Japan. Gold flowed in the opposite direction during the same period. Such high volumes of silver flowed to China because its value was highest there. The high price of silver in China, by far the world's most populous country at the time, was due, in turn, to the conversion of the monetary and fiscal (taxation) systems in that country to silver.¹¹

On the other side of the argument are those who have attempted to explain the price increases in terms of real factors, most notably population growth and urbanization. From the very early stages of the debate, population growth has been proposed as one of the alternative explanations of the Price Revolution. It has been singled out primarily because agricultural prices rose much faster than the prices of manufactured goods during this period. The proponents of this explanation have then argued that as agricultural production failed to match the increase in population, the result was sharply higher food prices.¹²

There was a serious flaw with this argument, however. As Donald McCloskey has pointed out, all other things being equal, an increase in population should increase the volume of transactions and the volume of economic activity. Without a change in the velocity of circulation, this should lead to a decline and not an increase in prices as can be followed from the basic quantity identity as developed by Fisher, $M \times V = P \times T$, where M stands for the money supply, V for the velocity of circulation, P for prices and T for the volume of transactions. Even if relative prices should move in favor of agriculture because of the inelastic supplies in that sector, the general price level must fall while the volume of transactions rises together with population. While pointing out the basic flaw in this argument, McCloskey suggested that some other chain of reasoning could still be found to link population growth to rising prices in the sixteenth

¹¹ D. Flynn and A. Giraldez, "Born with a 'Silver Spoon': the Origin of World Trade in 1571," *Journal of World History* 6 (1995), 201–21; D. Flynn and A. Giraldez, "Arbitrage, China and World Trade in the Early Modern Period," *Journal of the Economic and Social History of the Orient* 38 (1995), 429–48; and R. von Glahn, *Fountain of Fortune, Money, and Monetary Policy in China, 1000–1700* (Berkeley and Los Angeles, CA: University of California Press, 1996), chapters 1, 4 and 7.

¹² Y. S. Brenner, "The Inflation of Prices in early Sixteenth-Century England," *Economic History Review* 14 (1962), 225–39, and "The Inflation of Prices in England, 1551–1650," *Economic History Review* 15 (1963), 266–84.

century.¹³ Both sides thus agree that the American silver supported the price increases during the sixteenth century, but disagree on whether it caused them. It makes a good deal of difference for monetary history and theory, of course, whether money caused or simply sustained the price increases.

More recently, the debate has shifted from increases in the money supply to changes in the demand for money and an increase in the velocity of circulation during the sixteenth century. One of the more important and insightful contributions came from Miskimin who inquired whether there may be a more indirect causal connection between population growth and rising prices. Miskimin reasoned that an increase in population would put greater numbers of persons in closer contact with each other and may have enhanced trading opportunities and thus led to increased velocity of circulation.¹⁴

Jack Goldstone pursued this idea and developed a simple model of exchange to show how urbanization and increasingly more dense urban networks of exchange might permit small amounts of silver to sustain a growing number of transactions. He argued that a larger volume of monetary transactions triggered by rising population density and household specialization should bring about smaller cash balances thanks to more frequent and smaller individual transactions, thereby increasing the velocity of circulation. In response, governments might have sought to catch up with rising prices by increased minting and currency debasement. Money supplies would thus be expected to lag rising prices. Bullion imports would help sustain this spiral but would not drive this demand. Once population growth ceased and urbanization slowed, however, velocity of circulation would fall.¹⁵ Also pursuing the trail opened up by Miskimin, Peter Lindert provided evidence that the velocity of circulation in England was not in fact

¹³ Donald McCloskey, "Review of the Book by P. Ramsey (ed.), *The Price Revolution in Sixteenth Century England*," *Journal of Political Economy* 80 (1972), 1333.

¹⁴ H. A. Miskimin, "Population Growth and the Price Revolution in England," *The Journal of European Economic History* 4 (1975), 179–86.

¹⁵ J. A. Goldstone, "Urbanization and Inflation: Lessons from the English Price Revolution of the Sixteenth and Seventeenth Centuries," *American Journal of Sociology* 89 (1984), 1122–60. In a subsequent book, Goldstone went on to explain the pattern of social unrest, rebellion, and revolution in Europe and Asia, from England to China during the Early Modern era, in terms of population growth, rising prices, and fiscal crises. J. A. Goldstone, *Revolution and Rebellion in the Early Modern World* (Berkeley and Los Angeles, CA: University of California Press, 1991). In a separate article, Goldstone then linked the long term cycles in European and Asian population during the Early Modern era to climate, meteorological series and solar activity. J. A. Goldstone, "The Causes of Long Waves in Early Modern Economic History," Joel Mokyr (ed.), *Research in Economic History, Supplement 6* (Greenwich, CN: JAI Press, 1991), 64–68. Unfortunately, some of the evidence he employed to fit the Ottoman case to his framework simply does not exist. For example, contrary to his assertion, there is no reliable evidence at the moment suggesting that Ottoman population and real wages declined during the second half of the seventeenth century. Goldstone, "Causes of Long Waves," 55.

constant as the quantity theory explanation insisted or assumed, but fluctuated broadly during the Early Modern era.¹⁶ More recently in a study on England until 1700, however, Mayhew has argued that while the velocity of circulation did show long-term fluctuations and while it increased during the sixteenth century, it did not rise with increasing urbanization and monetization.¹⁷

These efforts have shifted the focus from the supply of money to the demand for money, the inverse of the velocity of circulation. While earlier literature based on orthodox interpretations of the quantity theory of money assumed that demand for money or the velocity of circulation was constant or stable and that it can safely be ignored, it is thus becoming evident that the determinants of the demand for money need to be examined in a more general framework. This new framework needs to include not only the more obvious factors such as commercialization and monetization but also demographic changes, and more broadly yet, social and cultural factors. For this reason, it is simplistic to assume that demand for money would remain stable. Since many of these variables tend to vary temporally and from one society to another, it is possible to observe wide intertemporal and cross-societal variations in the demand for holding money.¹⁸ It might then be possible to abandon the Eurocentric position with respect to the determinants of the demand for money and insert into this general framework the varying experiences of different areas of the Old World from western and central Europe to India and China as well as the Ottoman Empire.

Another aspect of the debate concerns the long-term consequences of the Price Revolution. Hamilton had argued that by facilitating accumulation in the hands of those who were building a new order, or at least undermining the old, the price increases contributed to the transition to capitalism in Europe and were thus revolutionary in their impact as well.¹⁹ It has since been shown, however, that agricultural prices and rents rose much faster than those of manufacturing and wages during this episode. As a result, the major beneficiaries of the price movements were the landowners. The manufacturers certainly did not benefit from the rising prices of raw materials and the lagging prices of their output. The real victims were the

¹⁶ P. H. Lindert, "English Population, Wages and Prices, 1541–1913," *Journal of Interdisciplinary History* 15 (1985), 609–34.

¹⁷ N. J. Mayhew, "Population, Money Supply and the Velocity of Circulation in England, 1300–1700," *The Economic History Review* 48 (1995), 238–57.

¹⁸ F. Perlín, "Money-use in Late Pre-colonial India and the International Trade in Currency Media," in J. F. Richards (ed.), *Imperial Monetary Systems in Early Modern India* (Delhi: Oxford University Press, 1987), 232–373; and Subrahmanyam, "Precious Metal Flows," 79–105.

¹⁹ Hamilton, "American Treasure," 355–56; I. Wallerstein, *The Modern World System, Capitalist Agriculture, and the Origins of the European World Economy in the Sixteenth Century* (New York, NY: Academic Press, 1974), 70–85.

urban laborers who witnessed a sharp reduction in their standards of living. At least in the European case, then, it would be difficult to show how the Price Revolution accelerated the decline of the old order and the transition to industrial capitalism. More generally, in comparison to the grand visions and bold claims of the earlier generation about the long-term consequences of the Price Revolution, the contemporary historians of Europe tend to downplay such long-term consequences.²⁰

New evidence and a review of the old

In a study first published in 1970 and subsequently translated into English after some revisions, the late Ömer Lütfi Barkan examined the price increases of the sixteenth century in the Ottoman context.²¹ After establishing that large increases in food and raw materials prices did take place, Barkan argued that these trends were imported into the Ottoman economy through trade with Europe across the Mediterranean. “The decline of the established Ottoman social and economic order began as a result of developments entirely outside the area dominated by the Porte, and in particular, and as a consequence of the establishment in western Europe of an Atlantic economy of tremendous vitality and force.” He then concluded that “this grave inflationary current . . . together with other more internal factors disturbed the social and economic security of the Empire, and in the end, proved to be irreversible . . . The sixteenth century came to an end with the countries of the Ottoman Middle East falling into a grave economic and social crisis which presaged a decisive turning point in their history.”²²

Even though Barkan’s arguments were widely read, they have generated only a modest amount of debate and his conclusions have remained mostly unchallenged.²³ In the meantime, the debate about the causes and con-

²⁰ See the introductory essay in Ramsey (ed.), *Price Revolution*.

²¹ Ö. L. Barkan, “XV. Asrın Sonunda Bazı Büyük Şehirlerde Eşya ve Yiyecek Fiyatlarının Tesbiti ve Teftişi Hususlarını Tanzim Eden Kununlar,” *Tarih Vesikaları* 1 and 2; and Ö. L. Barkan “The Price Revolution of the Sixteenth Century: a Turning Point in the Economic History of the Near East” (trans. by Justin McCarthy), *International Journal of Middle East Studies* 6 (1975), 3–28.

²² Barkan, “Price Revolution,” 5–7. This study grew out of a dialogue Barkan developed with Fernand Braudel during the 1950s and 1960s. The second edition of Braudel’s work on the Mediterranean world during the sixteenth century incorporated Barkan’s findings on price trends in Ottoman cities. Braudel, *Mediterranean World*, vol. I, 517–19. Barkan was also influenced by the ideas of the Dependency School which was quite popular in Turkey at the time.

²³ One important exception is H. Sundhussen, “Die ‘Preisrevolution’ im Osmanischen Reich während der zweiten Hälfte des 16. Jahrhunderts,” *Südost-Forschungen* 42 (1983), 169–81. Also see the detailed empirical study by L. Berov, *Prices in the Balkans during the Sixteenth through Nineteenth Centuries and the European Revolution of Prices* [in Bulgarian] (Sofia: Publishing House of the Bulgarian Academy of Sciences, 1976); a summary is available in L. Berov, “Changes in Price Conditions in Trade between Turkey and Europe in the Sixteenth through Nineteenth Century,” *Etudes Balkaniques* 3 (1974), 168–78; M. Çizakça, “Osmanlı Ekonomisinde Akçe Tağşışının Sebepleri Üzerinde Kısa bir İnceleme,” *Boğaziçi*

sequences of the Price Revolution in Europe and around the world economy has taken new directions. It is now time to return to the Ottoman case and reconsider Barkan's evidence and inferences about the Price Revolution.

In the empirical part of his study, Barkan utilized the account books of several leading hospices (*imarets*) in Istanbul from 1489–90 to 1655–56. He constructed weighted price indices based on the purchases of firewood and sixteen standard items of food in twenty-four different years during this interval. Barkan could locate in the Ottoman archives only one such account book for the period before 1585–86 when the government undertook a large debasement which had a large impact on prices. That single account book belonged to the year 1489, the base year for his study. To make up for this deficiency, he included in his series account books from the palace kitchen for the years 1555–56 and 1573. He also examined the account books of hospices in the cities of Edirne and Bursa for the same period.²⁴ Thanks to the large volume of materials available from the Ottoman archives in Istanbul, the price data utilized by Barkan were much more detailed than those available for any part of Asia and many of the European countries for this period. Nonetheless, questions were raised about his study regarding the limited nature of his price observations and whether prices paid by the hospices closely tended by the government could be considered representative.

I have made use of a greater variety of sources in recent years to study prices and wages in Istanbul, and to a lesser extent in other leading cities of the Empire, from the fifteenth to the twentieth centuries. In this still ongoing study, I constructed separate food price indices based on i) the purchases of the palace kitchen and ii) the officially established price ceilings (*narh*) for the basic items of consumption in the city of Istanbul.²⁵ Since these two series might reflect official or state controlled prices, I constructed another index based on iii) the account books and prices paid by the many pious foundations (*vakıf*), both large and small, located in the capital city.

University Journal, Administrative Sciences and Economics 4–5 (1976–77), 21–27; and M. Çizakça, "Price History and the Bursa Silk Industry: a Study in Ottoman Industrial Decline, 1550–1650," *The Journal of Economic History* 40 (1980), 533–49 which argued that the intersectoral price movements led to the decline of the Ottoman silk industry during this period. C. Kafadar, "Les Troubles monétaires de la Fin du XVIe Siècle et la Prise de Conscience Ottomane du Declin," *Annales, Economies, Sociétés, Civilisations* 2 (1991), 381–400, returned to the subject from the perspective of the history of mentalities. Subrahmanyam, "Precious Metal Flows," 79–105, attempted a comparative perspective with South Asia but his analysis of the Near Eastern or West Asian case remained thin.

²⁴ Barkan, "Price Revolution," 8–17.

²⁵ Some of these *narh* lists, especially those for Istanbul have been published; see H. Sahillioğlu, "Osmanlılarda Narh Müessesesi ve 1525 Yılı Sonunda İstanbul'da Fiyatlar," *Belgelerle Türk Tarihi Dergisi* 1 (1968), 36–40, 2 (1968), 54–56 and 3 (1968), 50–53 for the year 1525, and M. S. Kütükoğlu, "1624 sikke tashihiinin ardından hazırlanan narh defterleri," *Tarih Dergisi* 34 (1984), 123–82, M. S. Kütükoğlu, *Osmanlılarda Narh Müessesesi ve 1640 Tarihli Narh Defteri* (Istanbul: Enderun Kitabevi, 1983), for the years 1624 and 1640, respectively.

Each of these three indices includes the prices of eight to ten leading items of consumption such as cooking oil, flour, rice, honey, sugar (for the palace only), mutton, chick peas, milk, eggs, and olive oil for burning. The weights of each of these items in the overall index was based on the approximate share of each in the total expenditure of the respective institutions. In cases where the prices of one or more of these items were not available for a given year, the missing values²⁶ were estimated by an algorithm that applied regression techniques to the available values.

These indices now make it possible to compare Barkan's results with a much larger body of evidence also drawn from archival sources. The three indices that I have calculated for the period 1469 to 1700 as well as the index originally calculated by Barkan for the period 1489 to 1655 are shown in graph 7.1. There are some differences in the long-term trends exhibited by the four indices. First, the increases in official ceiling prices were lower than all the others. Secondly, the index prepared by Barkan tended to provide higher estimates for inflation than the other three for the period until 1655 for which it is available. Nonetheless, these four series exhibit a large degree of similarity even though they were based on different types of prices in the capital city. As a whole, they indicate that prices in Istanbul increased by approximately 500 percent from the end of the fifteenth to the end of the seventeenth century. They also show prices in the capital city need to be examined in two distinct periods: until the debasement of 1585–86 when the akçe was relatively stable and after 1586 when monetary instability played havoc with prices.

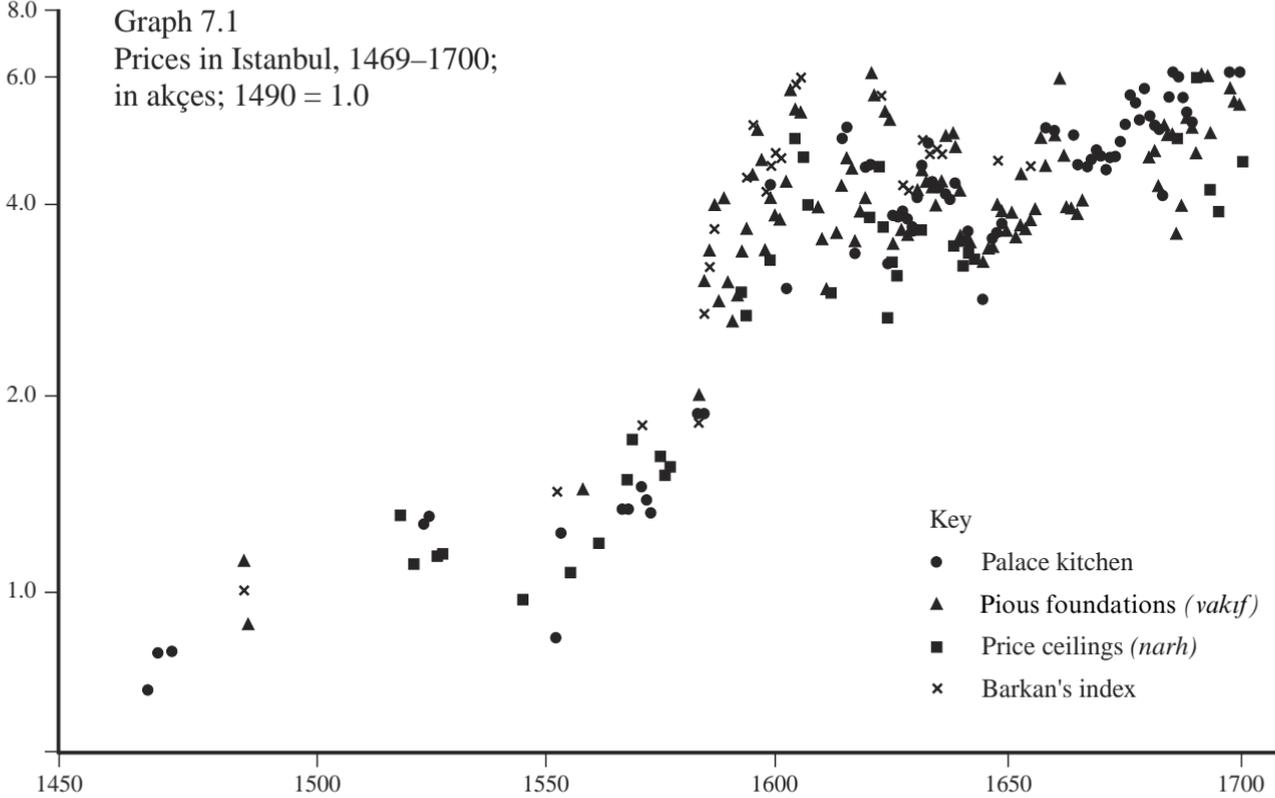
Regarding the period before 1585, my comparison of the prices paid by the palace kitchen with the prices paid by the hospices indicates that they were quite similar. For this reason, Barkan's insertion of some prices from the palace kitchen into the series from the hospices did not cause serious problems. More serious in its implications is the apparent error in Barkan's calculation of his index values for the years 1555 and 1573. The index values for these years are important because they give us the only measures of the extent of inflation prior to the debasements of 1585–86, hence the only measure of silver inflation until that date. Since Barkan had independently published the full texts of the account books he used for 1489, 1555 and 1573, I attempted to replicate his calculations for these years especially since his index appeared unusually high in 1555 and 1573 in relation to my palace-kitchen index using the same set of prices.²⁷ One problem arises from the fact that the palace-kitchen account books for these two years actually

²⁶ For greater detail on the construction of these indices and preliminary results, see appendix II at the end of this volume.

²⁷ Ö. L. Barkan, "Fatih Camii ve İmaretî Tesislerinin 1489–1490 Yıllarına ait Muhasebe Bilançoları," *İstanbul Üniversitesi İktisat Fakültesi Mecmuası* 23 (1962–63), 297–341; and "İstanbul Saraylarına ait Muhasebe Defterleri," *Türk Tarih Kurumu, Belgeler* 13 (1981), 108–49. (1–71 for the years 1555–56).

Log scale

Graph 7.1
Prices in Istanbul, 1469–1700;
in akçes; 1490 = 1.0



provide prices for no more than 11 of the 17 items in Barkan's basket. Moreover, even though Barkan's calculations suggested that food prices paid by the palace kitchen in 1573 were 79.97 percent higher than the prices paid by the hospice of the mosque sultan Mehmed II in 1489, in fact none of the items appearing in the original documents showed price increases approaching this overall rate. My own calculations based on the available prices indicate that the value of Barkan's index in 1555 and 1573 should stand close to 125 and 145 respectively; not 142.26 and 179.97.

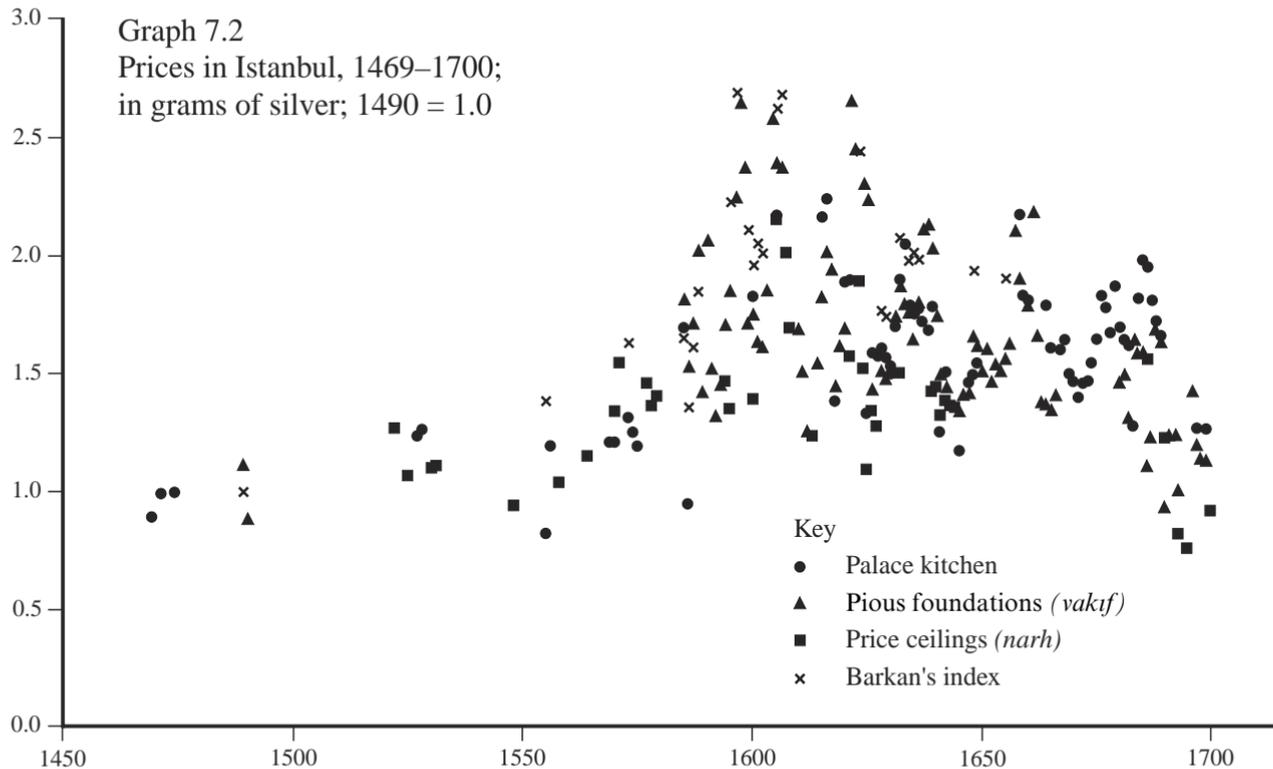
Economic historians studying the Price Revolution have found it useful to make an analytical distinction between price increases in nominal terms and those expressed in grams of silver. The latter index is derived by multiplying the price indices calculated in nominal akçes with the silver content of the akçe expressed in grams of silver for each year. It then becomes possible to break down the total increase in prices into its two components. The changes in the index measuring prices in grams of silver may be taken as an indicator for the price level in the absence of debasements. Since prices in grams of silver would tend to converge between countries under open-economy conditions, especially so for the port city of Istanbul, the difference between the silver price index and the other in nominal *akçes* would reflect the extent of price increases due to the debasement of the currency. This second component of price increases was not necessarily independent of the Price Revolution, however, since the latter created, or at least contributed to the fiscal pressures leading to debasements. The price indices for Istanbul including that of Barkan expressed in grams of silver are presented in graph 7.2.

Between 1489 and 1585 the akçe was quite stable, losing 12 percent of its silver content in two minor debasements undertaken in 1491 and 1566. Since Barkan's calculations indicated a 79.97 percent increase in nominal food prices until 1573, his food price index expressed in grams of silver rose by 62 percent during the interval 1489 to 1573. On the basis of this result, Barkan argued that the impact of the Price Revolution was being felt strongly in the Ottoman economy before the last quarter of the sixteenth century. He then linked the Ottoman fiscal difficulties and the debasement of 1585–86 to these price increases by arguing that the inflation adjusted revenues of the treasury declined during this period since the government failed to adjust many of the fixed taxes upwards. After my correction of Barkan's price index for the year 1573, however, the price increases between 1489 and 1573 expressed in grams of silver is reduced to 31 percent, indicating a much more modest rate of silver inflation. With this correction, it becomes more difficult to explain Ottoman fiscal difficulties primarily in terms of the Price Revolution or imported inflation, following Barkan.

After the debasement of 1585–86, in which the *akçe* lost 44 percent of its silver content, the Ottoman currency entered a period of extreme in-

Log scale

Graph 7.2
Prices in Istanbul, 1469–1700;
in grams of silver; 1490 = 1.0



stability.²⁸ Its silver content declined further while fluctuating sharply and often until the middle of the seventeenth century.²⁹ Substandard akçe circulated widely during this period. As a result, most of the increases in food prices after 1585 measured in nominal akçe were due to the deterioration of the currency. Unfortunately, we do not have the mint records or records of government orders to the mints to establish the precise standards of the akçe for each year of the period 1585 to 1650.³⁰ Since the available series on the silver content of the akçe only reflect the official standards, we should recognize that graph 7.2 overstates the extent of silver inflation for the period 1586 to 1650. For the period after 1650, the price indices expressed in grams of silver are more reliable. When he constructed his price index a quarter of a century ago, Barkan was unaware that the akçe often deteriorated below its official standard after 1586. As a result, for most of the years that the silver content of the akçe remained below official standards, his calculations overstate the extent of silver inflation even more than the indices I have constructed. Part of this difference between my and Barkan's indices can be followed from graph 7.2.

After making crude adjustments for the deficiency cited above, the indices presented in graph 7.2 suggest that prices expressed in grams of silver reached their peak in Istanbul during the first quarter of the seventeenth century at approximately 80 to 100 percent above their levels in the base year of 1489–90. The trend was downwards for the rest of the century. By the 1680s, prices in grams of silver had declined to about 140 percent of their levels in that base year. All three indices presented in graph 7.2 show that food prices in Istanbul expressed in grams of silver declined further during the last two decades of the seventeenth century. By 1700 they were only 20 percent higher than their levels in 1489–90.

Overall, then, my findings agree with those of Barkan regarding the extent of nominal price increases in Istanbul from the end of the fifteenth to the middle of the seventeenth century. As for the breakdown of this overall increase, however, my series based on a greater variety of sources and more

²⁸ The government ordered the mints to strike 800 akçe from 100 dirhams of silver whereas the earlier standard had been 450 akçe per 100 dirham of 3.072 grams. See table 8.1.

²⁹ The deterioration of the akçe is clear from the market exchange rates of the Ottoman silver unit against both gold sultani and leading European coinage. For example, the exchange rate of the akçe declined from 120 in 1620 to as low as 400 per sultani in 1624 and then rebounded back to 120. This suggests that the silver content of the akçe declined by as much as two thirds or more during that interval. H. Sahillioğlu, "XVII. Asrın İlk Yarısında İstanbul'da Tedavüldeki Sikkelerin Raici," *Türk Tarih Kurumu, Belgeler* 1/2 (1965), 227–34. Barkan was aware of the deterioration of the akçe and he cites these exchange rates by referring to Sahillioğlu's study but he did not attempt to adjust his calculations accordingly. Barkan, "The Price Revolution," 14. For more details about the monetary history of this period, see chapter 8, pp. 138–42.

³⁰ To make up for this deficiency, I tried to substitute separate series for the silver content of the akçe derived from its exchange rate against the stable European currencies but these series did not provide satisfactory results. For the exchange rate of the akçe against the European currencies during this period, see table 8.2.

realistic estimates for the silver content of the akçe diverge from those of Barkan. They show that silver inflation accounted for a smaller part and Ottoman debasements accounted for a larger part of these increases than Barkan suggested quarter of a century ago.

Evidence from the account books of similar hospices in Edirne and Bursa, other cities of the Marmara basin, indicate similar rates of overall price increases during this period.³¹ While detailed price data for other parts of the Ottoman Empire are yet to be analyzed in detail, the price trends uncovered for the capital city and the Marmara region as well as the evidence gathered by Berov all suggest that the Balkans, Anatolia, and those parts of Syria where the akçe was the basic means of exchange all experienced similar increases in nominal prices. These sources leave no doubt that Istanbul, the Marmara region, and most probably other parts of the Balkans and Anatolia experienced some increases in prices expressed in grams of silver.³² We can also hypothesize that Egypt where the local silver currency was not subjected to the debasements of the akçe, experienced more limited increases in nominal prices but the rise in prices expressed in grams of silver must have been comparable to those in Istanbul and the Marmara basin. The well-developed maritime transportation and commerce networks around the eastern Mediterranean and across the Mediterranean must have ensured the convergence of these price trends.

Finally, it needs to be underlined that the indices Barkan and I have constructed measure food and other raw materials prices. There is evidence that in the Ottoman case as well as in Europe, the intersectoral terms of trade moved in favor of agriculture and the prices of manufactured goods and wages increased more slowly than food prices during the sixteenth century through to the middle of the seventeenth century.³³

Why did prices rise in the Near East?

In the English version of his article on the Price Revolution, Ömer Lütfi Barkan is careful not to directly discuss the causes of the Price Revolution in Europe. In that version he emphasizes that the Ottomans sought to establish a self-sufficient and tightly regulated economic system and argues that inflation, “the product of contact with the Atlantic economy” was an

³¹ Barkan, “Price Revolution,” 16; Ö. L. Barkan, “Edirne ve Civarındaki Bazı Imaret Tesislerinin Yıllık Muhasebe Bilançoları,” *Türk Tarih Kurumu, Belgeler* 2, 1964, 235–377. The preliminary results of my own research in the Ottoman archives also point to similar price trends in other cities of the Ottoman Empire.

³² For detailed evidence of price increases in the Balkans during this period, see Berov, *Prices in the Balkans*.

³³ See Çizakça, “Price history,” 533–49, on prices of raw silk and silk goods after 1550. Similarly, detailed data I have gathered from the Ottoman archives on non-food prices such as different types of cloth, nails, and wood for burning and also on wages also show more limited increases.

imported phenomenon for the Ottoman Empire. "The (inflation) in Europe gradually began a process by which those commodities were sucked out of Ottoman markets. Wheat, copper, wool, and the like, which had been the bases of the Ottoman economic strategy, now came in short supply and . . . here . . . developed a rapid inflation of prices which soon endangered the equilibrium and security of the closed (Ottoman) economic system."³⁴

For Barkan's earlier ideas on the origins or causes of the Price Revolution, one has to go back to the Turkish version of his article published five years earlier.³⁵ This piece presented the same empirical evidence but also included a discussion on the origins of the Price Revolution. Presenting a graph borrowed from a text by Herbert Heaton, Barkan explicitly made the link between the arrival of specie from the New World and the price increases in Europe. He argued that the calculations by Hamilton show a "complete parallelism" between the volume of specie imports into Spain and the commodity price level in that country.³⁶

One section of that article, however, was titled "Other Causes of the Price Increases" and there Barkan showed that he was aware of the debates regarding the causes of the Price Revolution. Stating that "it would not be correct to link price increases solely to the accumulation of large stocks of gold and silver from Africa and America and to rely only on the quantity theory of money in the explanation of price formation and inflation," he went on to produce a long list of other possible causes which included debasements, population growth, changes in the velocity of circulation of money, and the emergence of other forms of money such as letters of credit and bills of exchange. Aside from a detailed discussion of debasements, however, Barkan did not offer a critical examination of these explanations coming from very different theoretical origins.³⁷

This is a good opportunity for taking another look at the Ottoman case in light of the recent debates in the literature. Perhaps most importantly, recent debates confirm that explanations other than that based on the simple quantity-theory framework deserve greater consideration than has been given by Barkan or others since. In this respect, the arguments by Miskimin, Lindert, and Goldstone which emphasize long-term changes in the velocity of circulation and the demand for money appear quite plausible in the Ottoman context.³⁸ The sixteenth century was a period of population growth, urbanization, growing economic linkages between rural and urban areas, commercialization, and monetization in the Ottoman Empire as well.³⁹ The spread of local and regional markets and fairs in the Balkans

³⁴ Barkan, "Price Revolution," 3–6.

³⁵ Ö. L. Barkan, "XVI. Asrın İkinci Yarısında Türkiye'de Fiyat Hareketleri," *Belleten* 34 (1970), 557–607.

³⁶ *Ibid.*, 581–4.

³⁷ *Ibid.*, 589–95.

³⁸ See pp. 116–18 above.

³⁹ For Ottoman population growth and urbanization in the sixteenth century, see Ö. L. Barkan, "Essai sur les données statistiques des registres de recensement dans l'Empire

and Anatolia provide strong evidence for the spread of commercialization and the money economy during this period. With the increased availability of specie and the growing economic linkages between the urban and rural areas, large sectors of the rural population came to use coinage, especially the small denominations. In addition, small-scale but intensive networks of credit relations developed in and around the urban centers in the Balkans and Anatolia.⁴⁰ Ottoman price increases expressed in grams of silver may thus be due to the rise in the velocity of circulation arising from these changes as argued by Miskimin, Lindert, and Goldstone for other countries. While increased availability of specie is not seen as the cause of price increases in this perspective, the former is seen as supporting and sustaining the latter. Moreover, this focus on the changing velocity of circulation during the sixteenth century does not necessarily imply that the price increases expressed in grams of silver were a local phenomenon. On the contrary, this perspective would imply that the long-term developments in the Ottoman Empire with respect to population growth, urbanization, and commercialization were part of a more general pattern in Europe and Asia during the sixteenth and early seventeenth centuries.

At the same time, increases in the velocity of circulation should not preclude the possibility that part of the Ottoman price increases expressed in grams of silver were due to the transmission of the European price increases through trade. The price rises in Europe and the ongoing trade with the West may have contributed to the ongoing inflation by creating strong demand for Ottoman agricultural products, as argued by Barkan. In other words, price increases in grams of silver may have been imported from Europe through trade and trade deficits, and at the same time, caused by changes in the velocity of circulation.

Long-term consequences of the Price Revolution

While the recent debates about the Price Revolution in Europe and the world economy have focused on the causes of the price increases, for historians of the Ottoman Empire the long-term consequences have attracted more attention. One important reason for the latter was Barkan's thesis that the price increases constituted a negative turning point and a

Ottoman aux XVe et XVI siècles," *Journal of the Economic and Social History of the Orient* 1 (1957), 9–36; M. A. Cook, *Population Pressure in Rural Anatolia, 1450–1600* (London: Oxford University Press, 1972); L. Erder, "The Measurement of Pre-industrial Population Changes, the Ottoman Empire from the Fifteenth to the Seventeenth Century," *Middle Eastern Studies* 9 (1975), 284–301; L. Erder and S. Faroqi, "Population Rise and Fall in Anatolia, 1550–1620," *Middle Eastern Studies* 15 (1979), 322–45; and R. C. Jennings, "Urban population in Anatolia in the Sixteenth Century: a Study of Kayseri, Karaman, Amasya, Trabzon, and Erzurum," *International Journal of Middle Eastern Studies* 7 (1976), 21–57.

⁴⁰ See chapter 4, pp. 74–76.

leading cause of the “Ottoman decline” at the end of the sixteenth century. These arguments also deserve closer scrutiny.

Barkan identified three key areas where the Price Revolution showed its adverse effects: state finances, agricultural organization, and industry. With respect to the former, he provided detailed evidence from his own research into Ottoman budgets to show that the revenues of the central government failed to keep pace with price increases and rising expenditures. The healthy surpluses of the earlier period had turned into deficits in the last decades of the sixteenth century.⁴¹ Since some of the government revenues were fixed in nominal terms and the government failed to adjust these upwards, he argued, the Price Revolution did contribute to Ottoman fiscal woes. My price series presented earlier showed that this effect was more modest than that suggested by Barkan. Furthermore, there were other, more important causes of Ottoman fiscal difficulties. It was, above all, the growing need for maintaining larger central armies as well as the increasing frequency of long and exhaustive wars in both the east and the west that gave rise to the budget deficits and eventually led to the debasements, as will be argued in the next chapter.⁴² In this respect, too, the Ottoman case was part of a pattern that was repeated across Europe and parts of Asia during the sixteenth and seventeenth centuries.

With respect to agriculture, Barkan argued that the Price Revolution and the debasement of 1585–86 played a key role in the disintegration of the *timar* system of land tenure.⁴³ The *timar* system had relied on the agricultural taxes collected from the peasant producers to equip locally a cavalry based force that joined the imperial army at wartime. Aside from the tithe which was collected in kind, most of the other dues and taxes collected from the peasant households by the *sipahi* were fixed in terms of the *akçe*. Since these latter revenues failed to keep up with the increased cost of living and the necessary costs of armament, many *sipahis* refused to join the army and began to leave their *timars* after the debasement of 1585–86.⁴⁴

The central government could have adjusted these dues upwards. However, it left their nominal levels unchanged but chose to levy a series of extraordinary taxes on the rural population, called *avarız-ı divaniyye* and *tekalif-i örfiyye*, which further undermined the *sipahi* and the provincial army. The government soon abandoned the *timar* system and shifted to tax-farming, auctioning off the collection of rural taxes to the highest bidders.⁴⁵

⁴¹ Barkan, “Price Revolution,” 17–27.

⁴² For the fiscal burden of the wars, see also Sundhaussen, “Die ‘Preisrevolution,’” 179.

⁴³ H. İnalcık, “Military and Fiscal Transformation in the Ottoman Empire, 1600–1700,” *Archivum Ottomanicum* 6 (1980).

⁴⁴ Barkan, “Türkiye’de Fiyat Hareketleri,” 23–24.

⁴⁵ İnalcık, “Military and Fiscal Transformation.” For the implications on the demand for and use of money of the transition from the *timar* system of land tenure to *iltizam* or tax-farming where the taxes were collected in kind and then converted to cash in local markets by the tax-farmers, see the discussion in chapter 5, pp. 84–87.

This broad shift towards the collection of the agricultural surplus at the center was due to the changing techniques of warfare and the need to maintain larger permanent armies. The decline of the timar system, then, was due more to military considerations than the adverse consequences of the Price Revolution.⁴⁶

One aspect of the Price Revolution in the Ottoman Empire that has not drawn any attention has been its distributional consequences. Since the prices of agricultural goods rose much faster than other prices during this period, the more market oriented segments of the agricultural population, those in control of marketable surpluses such as medium-sized landholders and the estate owners tended to benefit from the Price Revolution. On the other hand, it was the urban working groups, the artisans as well as the consumers who carried the burden of the price increases. While prices of food rose in the urban areas, detailed data recently collected from the Ottoman archives show that real wages tended to decline during this period, as was the case in Europe.⁴⁷

Regarding the consequences on Ottoman industry, Barkan argued that the exportation to Europe of the basic raw materials arising from west–east price differentials created severe shortages for Ottoman guilds. When these price effects combined with the increasing competitiveness of European industry and the inability of Ottoman manufacturers to keep up with them, Barkan insisted, an irreversible crisis developed for Ottoman industry. He thus placed the decline of Ottoman guilds in the face of European competition firmly in the sixteenth century.⁴⁸

Ottoman industry was in fact adversely affected by the price movements. Ottoman guilds, especially those in coastal regions, were hurt by the sixteenth-century shortages arising from the exportation of raw materials to Europe. However, there is a good deal of evidence that these shortages were short lived and that the guilds later recovered.⁴⁹ Similarly, Murat Çizakça has shown for the case of the silk industry from 1550 to 1650 that even though wages lagged behind price increases, profit margins were squeezed

⁴⁶ İnalçık, "Military and Fiscal Transformation," 283–337.

⁴⁷ The nominal wage series I have constructed cover Istanbul and to a limited extent, the Marmara basin but it is reasonable to expect that similar trends prevailed elsewhere in the Balkans and Anatolia. For published evidence on urban wages around the Mediterranean basin during the sixteenth century, see Ö. L. Barkan, *Süleymaniye Camii ve İmareti İnşaatı, 1550–1557*, vol. I and vol. II (Ankara: Türk Tarih Kurumu Yayınları, 1972–1979), passim.

⁴⁸ "One can see clearly that the advent of the new European commerce began the stagnation of the Ottoman craft industry . . . faced with the continuously evolving European industry, Ottoman industry could not find the dynamism necessary to adapt to the new conditions of the world economy. As an ever wider gap between it and European industry opened, the Ottoman system was condemned to degeneration . . . The new European commerce must be included as one of the main causes of the sixteenth century Ottoman economic stagnation." Barkan, "Price Revolution," 7–8.

⁴⁹ S. Faroqhi, "Crisis and Change, 1590–1699," in H. İnalçık and D. Quataert (eds.), *An Economic and Social History of the Ottoman Empire, 1300–1914* (Cambridge University Press, 1994), 433–473.

between the stagnating prices of output and the rapidly rising prices of raw materials.⁵⁰

Nonetheless this line of reasoning, however, can not explain why European manufacturers, which faced similar price movements, did much better than their Ottoman counterparts. In short, if the seventeenth century, or most of it, was a period of stagnation for Ottoman guilds, this was due to other internal causes and not the adverse price movements associated with the Price Revolution. In fact, the Ottoman manufacturers were not subjected to any serious competition from European industry until later. Volume of trade with Europe remained limited and the imports were primarily luxury goods and items such as colonial wares which did not compete with domestically produced goods until the nineteenth century.

One of the reasons why the debate on the Price Revolution in Europe originally attracted so much attention was the rash claims made by Hamilton and his followers that by redistributing income into the hands of new groups, the price increases paved the way for the rise of capitalism. It is interesting that Barkan similarly interpreted the price increases as a turning point and a leading cause of the “Ottoman decline” at the end of the sixteenth century. In retrospect, however, Barkan’s as well as Hamilton’s claims and the attempt to single out the Price Revolution as a key event appear exaggerated. The Ottoman system undoubtedly faced severe fiscal and economic difficulties at the end of the sixteenth century. These difficulties related more to other causes than to the impact of silver inflation *per se*, however. Some of these other causes will be examined in the next chapter.

⁵⁰ Çizakça, “Price History and the Bursa Silk Industry,” 533–49.

Debasement and disintegration

The debasement of 1585–86: a turning point?

Economic historians generally agree that the fortunes of the Ottoman economy and state finances took a sharp turn for the worse during the closing decades of the sixteenth century. Stability and expansion were replaced by stagnation and crisis, if not contraction.¹ This reversal is nowhere more evident than in the case of monetary phenomena. Already before the 1580s, the monetary difficulties in Europe and around the Mediterranean had begun to have an impact on the Ottoman currency. The akçe did not easily recover from these difficulties. After the debasement of 1585–86, it entered an extended period of instability lasting until the 1640s. Based on archival and numismatic sources, this chapter will show that the output levels of the Ottoman mints in the Balkans and Anatolia began to decline in the early part of the seventeenth century. By the 1640s and 1650s, the mints virtually stopped the production of akçes. With the disappearance of the Ottoman unit, varieties of European coinage moved in to take its place. In the Balkans and Anatolia the akçe remained no more than a unit of account until the last decade of the century when the Ottoman government undertook a major reform and established a new monetary unit. On the surface, then, the monetary stability of the sixteenth century came to an end with the debasement of 1585–86. To understand the causes of the monetary difficulties, however, we need to go back to the earlier period.

Until its last quarter, the sixteenth century was a period of demographic and economic expansion coupled with fiscal and monetary stability in the Ottoman Empire. Along with increases in population, land under cultivation as well as local and long-distance trade expanded. With growing commercialization, economic ties between the countryside and urban areas became stronger. The monetary needs of this economy were met by the

¹ For a recent discussion, see S. Faroqhi, “Crisis and Change, 1590–1699,” in Halil İnalcık and Donald Quataert, eds., *An Economic and Social History of the Ottoman Empire, 1300–1914* (Cambridge University Press, 1994), 433–543.

increased availability of gold, primarily from Egypt, and silver arriving from the Americas by way of Europe. Large segments of the population, both urban and rural, came to use coinage during this period, especially the silver akçe and the copper mangır, through participation in markets and because of state taxation of a wide range of economic activities.²

During the earlier part of the century new territories including Hungary, Syria, Mesopotamia, and Egypt had been incorporated into the Empire. State finances had benefited from these successful campaigns and the inflow of annual remittances from these provinces, most importantly from Egypt. The territorial expansion of the Empire reached its limits, however, after mid-century. The protracted and costly border wars with Safavid Iran in the east and the Habsburgs in the west during the second half of the century began to drain the enormous financial reserves of the imperial treasury accumulated during the earlier period. With the outbreak of another war with Iran in 1578, the treasury began to experience shortages of silver for payments to the soldiers.

At the same time, the changing technology of warfare began to raise military costs for the central government. Around the middle of the sixteenth century, when the timar holding sipahis formed the backbone of the Ottoman army, 30 to 40 percent of the military expenses were met by revenues collected in rural areas by the sipahi. As the traditional cavalry armed with conventional weapons of bow and arrow, lance and sword proved ineffective against the Austrian musketeers, however, the central government was forced to increase the numbers of janissaries, the standing infantry corps, from 13,000 in the 1550s to 38,000 in the 1600s; the additional costs of this shift fell upon the central treasury.³

A compilation of the available imperial budgets as summarized in table 8.1 shows that the budget surpluses of the early part of the century had turned into deficits towards the end of the century. It is also clear that expenditures rose faster than revenues during this period.⁴ This new pattern lasted for most of the seventeenth century, eventually exhausting the reserves of the imperial treasury accumulated during earlier periods. The inflation-adjusted series presented in table 8.1 show that revenues entering the imperial treasury failed to keep pace with inflation while expenditures rose faster than inflation after the middle of the sixteenth century.

The geographical location of the Empire on the long-distance trade routes between Asia and Europe also contributed to monetary instability. Ever since the twelfth century discoveries of major silver deposits in Bohemia, Hungary, and the Balkans, Europe tended to import more from Asia, in the form of spices, silk, textiles, and other goods, than it exported

² See chapters 4 and 5, pp. 74–82.

³ İnalçık, "Military and Fiscal Transformation in the Ottoman Empire, 1600–1700," *Archivum Ottomanicum* 6, 289, 311.

⁴ See note 3 of table 8.1.

Table 8.1. *A compilation of the available budgets of the Ottoman central government, 1523–1688*

Year	Revenues		Expenditures		Balance
	Current akçes (millions)	Index in constant akçes	Current akçes (millions)	Index in constant akçes	Current akçes (millions)
1523–4	116.9		118.8		– 1.9
1524–5	141.3	100.0	126.6	100.0	+ 14.7
1527–8	221.6		150.2		+ 71.4
1546–7	241.7		171.9		+ 69.8
1547–8	198.9	128.4	112.0	111.3	+ 86.9
1565–6	183.1		189.7		– 6.6
1567–8	348.5		221.5		+ 127.0
1582–3	313.7		277.6		+ 36.1
1592–3	293.4	70.4	363.4	95.4	– 70.0
1608	503.7		599.2		– 95.5
1643–4	514.5		513.8		+ 0.7
1650	532.9		687.2		– 154.3
1652–3	517.3		528.9		– 11.6
1654	537.4	92.8	658.4	127.4	– 121.0
1661–2	581.3		593.6		– 12.3
1666–7	553.4		631.9		– 78.5
1669–70	612.5		637.2		– 24.7
1687–8	700.4		901.0		– 200.6

Notes

1 These budget documents do not include all revenues and expenditures of the state. Most notably, they exclude revenues and expenditures collected and spent in the provinces including most of the taxes in kind collected from the agricultural producers and spent to equip and train a cavalry-based provincial army. The provincial revenues which did not reach the capital were roughly equal in magnitude to the figures appearing in these budgets.

2– The revenue and expenditure figures given in current akçes are adjusted for inflation with the help of a food price index for the Istanbul region constructed by Ömer Lütfi Barkan. His index which begins with 100 for the base year 1489–90, rose to 142 in 1555–56, 180 in 1573, 182 in 1585–6, 442 in 1595–96, 630 in 1605–06 and then declined to 504 in 1632–33, 470 in 1648–9 and 462 in 1655–56. (See table 7.1.) Since Barkan's price index is available for selected years only, we chose to provide, for the revenue and expenditure indices above, average values only for each of the subperiods.

3 It is well known that the terms of trade moved in favor of agriculture during the sixteenth century Price Revolution in Europe. Available evidence suggests that this was the case in the eastern end of the Mediterranean as well: Barkan, "The Price Revolution of the Sixteenth Century and M. Çizakça, "Price History and the Bursa

Silk Industry: a Study in Ottoman Industrial Decline, 1550–1650,” *The Journal of Economic History* 40 (1980). If so, then the food price index above tends to overstate the extent of overall price increases.

Sources

The budgetary figures are taken from A. Tabakoğlu, *Gerileme Dönemine Girerken Osmanlı Maliyesi* (Istanbul: Dergah Yayınları, 1985), 14–15. For a shorter list of budgets which point to the same pattern and a detailed discussion in English, see Barkan, “Price Revolution,” 17–21. The food price index for Istanbul was taken from Barkan, “Price Revolution,” 10–11.

to the east.⁵ The difference was paid in the form of specie. The arrival of large amounts of gold and silver from the Americas did not initiate these movements but certainly added to their volume. After the Ottomans began to establish control over the major trading routes in the eastern Mediterranean in the second half of the fifteenth century, they welcomed the arrival of specie from the West. Yet, they could not prevent the outflow of specie to the East arising from the trade deficits in that direction. Fluctuations in these commodity and specie flows brought increasing pressure on the Ottoman monetary system.⁶ These flows intensified during the second half of the sixteenth century. Large European silver coins called groschen began to appear in Ottoman markets in increasingly larger volumes.⁷ However, various restrictions and prohibitions imposed by the Ottoman authorities on exports of silver to Iran in the east did not succeed in slowing down these outflows.

Other government efforts to intervene in response to these monetary disturbances also proved futile or served to exacerbate the difficulties. One type of government intervention concerned the exchange rate. As silver became more abundant and the gold:silver ratio rose, the exchange rate of the sultani and the ducat increased from 54 akçes at the beginning of the sixteenth century to 60 akçes in mid-century. After the minor debasement of 1566 in which the silver content of the akçe was reduced by 7 percent, the market exchange rate of the sultani and the ducat rose to 65 akçes and even higher, especially in the Balkans where silver was more abundant. In

⁵ P. Spufford, *Money and its Use in Medieval Europe* (Cambridge University Press, 1988), 283–88, 349–56.

⁶ H. Sahillioglu, “The Role of International Monetary and Metal Movements in Ottoman Monetary History,” in J. F. Richards, *Precious Metals in the Later Medieval and Early Modern Worlds* (Durham, NC: Carolina Academic Press, 1983), 269–304. It was argued earlier in this century that the discovery of the ocean route led, rather quickly, to the decline of the transit trade through the Middle East. Recent research has shown, however, that after an early retreat the overland trade recovered and then held its own against the ocean route until the end of the sixteenth century. N. Steensgaard, *The Asian Trade Revolution of the Seventeenth Century: the East India Companies and the Decline of the Caravan Trade* (Chicago, IL: The University of Chicago Press, 1974), 9.

⁷ For the circulation and official exchange rates of the European groschen in the early 1580s, see BOA, MHM, vol. XLIV, 701/307; vol. XLVII, 224/88 and 255/99.

response, the Ottoman government fixed the official exchange rate at 60 until the mid-1580s. The divergence of the official and market rates contributed to the disappearance of the gold pieces in payments to the state and in other transactions which followed the official rates.⁸ Government efforts to fix the exchange rate in favor of the silver akçe also helped increase the clipping of akçes during the 1570s and 1580s. There was also a sharp increase in the production and circulation of substandard, counterfeit akçes.⁹

The growing fiscal difficulties culminated in the largest debasement to date and one of the largest in Ottoman history that reduced the silver content of the akçe by 44 percent. Whereas 450 akçes had been legally struck from 100 dirhams of "pure" silver, the mints were now ordered to strike 800 akçes from the same amount of silver.¹⁰ The official exchange rate of the akçe against the ducat and the sultani was accordingly lowered from 60 to 120. (See table 8.2.) The precise date of this operation has not been established. It was undertaken after 1584, most probably in 1585.¹¹

This debasement has been one of the more puzzling events for both contemporary observers and modern era historians. Since it was preceded and accompanied by a good deal of monetary turbulence such as the changes in the gold:silver ratios, circulation of growing amounts of substandard, counterfeit, and clipped coinage and the arrival of large amounts of specie from the New World, the contemporaries and many modern-day

⁸ For the divergence between the market and official exchange rates of the sultani, see table 4.2. For shortages of gold during the second half of the sixteenth century, see Sahillioğlu, "Bir Asırlık Osmanlı Para Tarihi," 105–22; C. Kafadar, "When Coins Turned into Drops of Dew and Bankers became Robbers of Shadows; the Boundaries of Ottoman Economic Imagination at the end of the Sixteenth Century," unpublished Ph.D. thesis (McGill University, Montreal, 1986), 61–64; and H. İnalçık, "Impact of the Annales School on Ottoman Studies and New Findings," *Review, Fernand Braudel Center* 1 (1978), 69–96.

⁹ For examples of counterfeiting episodes before the debasement of 1585–86 and government efforts to punish the perpetrators, see BOA, MHM. vol. XLI, 21/11, 118/56, and 1017/474; vol. XLVIII, 1075/369; vol. XLIX, 57/15; vol. LIII, 657/228; also S. Faroqli, "Counterfeiting in Ankara," *Turkish Studies Association Bulletin* 15 (1991), 281–92.

¹⁰ In monetary affairs, the Ottomans used, until the seventeenth century, the dirham of Tebriz which weighed 3.07 grams, 4 percent less than the classical dirham. This measure was inherited from the Ilkhanids, the Mongols of Persia in the fourteenth century. See chapter 2, p. 32.

¹¹ For orders sent by the central government, informing the local administrators of the new exchange rates, see BOA, MHM. vol. LVIII, 734/288; vol. LXII, 385/173, 478/212; vol. LXIX, 475/238; vol. LXX, 482/248; I.E.Dp., 48. The first and earliest of these is dated 17 Ramazan 993 H or September 12, 1585. Therefore, we can narrow down our attention to the summer of 1585 as the likely date of the debasement. See also C. Kafadar, "Les Troubles Monétaires de la fin du XVI^e Siècle et la Prise de Conscience Ottomane du Declin," *Annales, Economies, Sociétés, Civilisations* 2 (1986), 381–89. Özer Ergenç has provided evidence from the Ankara court records suggesting that the exchange rates in Ankara did not change for at least a decade. Ö.Ergenç, "XVI. Yüzyılın Sonlarında Osmanlı Parası Üzerine Yapılan İşlemlere İlişkin Bazı Bilgiler," *Middle East Technical University, Studies in Development*, 1978 Special Issue, 86–89.

Table 8.2. *The silver akçe and the gold sultani, 1584–1689*

Years	Akçes per 100 dirhams	Akçe in grams	Sultani in grams	Exchange rate akçe/sultani	Calculated gold:silver ratio
1584	450	0.68	3.517	65–70	11.8
1586	800	0.38	3.517	120	11.7
1596	?	?		220–230	
1600	950	0.32	3.517	125	10.3
1612	950	0.32	3.517	125	10.3
1618	1000	0.31	3.517	150	11.8
1621	1000	0.31		150	
1622	?	?		200–230	
1623	?	?		230–300	
1624	?	?		360–460	
1625	1000	0.31	3.517	140	11.1
1628	?	?		210	
1634	?	?		250	
1636	?	?		260	
1640	?	?		300	
1641	1000	0.31	3.517	140	14.7
1650	?	?		180	
1659	1250	0.26	3.490	210	14.1
1669	1400	0.23	3.490	270	16.0
1672	1400	0.23	3.490	270	16.0
1689	1400	0.23	3.490	270	16.0

Notes

1 See the notes to table 3.1.

2 Until 1585 the standard akçe was minted from “clean” silver without any alloys. After the debasement of 1585–86, however, unknown amounts of copper began to be added to the silver. The akçe was quite unstable until the middle of the seventeenth century. Due to the frequent debasements during which the earlier coinage was not completely retired, coins with different silver content often circulated simultaneously. The problems were compounded by the existence of counterfeit coinage. For this latter period, the standards of the akçe are available from archival evidence for the years 1600, 1618, 1624 and 1640 since these were years of correction-of-coinage operations. For other years, the silver content of the *akçe* can only be approximated but not determined precisely from its exchange rates against other coins since European coins may have enjoyed a premium against the unstable Ottoman unit based on respective specie contents. For example, the silver content of the akçe fell to about 0.13 grams in 1624.

3 The exchange rates presented in column 4 are mostly market rates at Istanbul. These rates often showed regional variations within the Empire. Moreover, new coinage and changes in the exchange rates reached the provinces with a time lag. In what appears to be an exceptional case, the exchange rate of the akçe against the sultani remained at 60 akçes in Ankara until 1593 despite the debasement of 1585–86 in Istanbul (Ergenç, “XVI. Yüzyılın Sonlarında”).

4 In view of the quality of the available data, the gold:silver ratios calculated here should be taken as no more than approximations. These ratios serve the additional purpose of providing an indirect check on the other figures. The average gold:silver ratio in Europe increased from 11.7 to 15.0 during this period. F. Braudel and F. Spooner, "Prices in Europe from 1450 to 1750," in E. E. Rich and C. H. Wilson (eds), *The Cambridge Economic History of Europe*, vol. IV (Cambridge University Press, 1967), 459.

Sources

Author's calculations based on Sahillioğlu, "Bir Asırlık Osmanlı Para Tarihi," 38–53, "XVII. Asrın İlk Yarısında İstanbul'da Tedavüldeki Sikkelerin Raici" *Türk Tarih Kurumu, Belgeler* 1/2 (1965), and "Role of International Monetary Movements."

historians have offered a variety of monetary explanations for the debasement. Most of these explanations do not stand up well to scrutiny, however.¹² It is true that the price increases associated with the Price Revolution contributed to the Ottoman fiscal difficulties by raising expenditures while some of the revenues remained fixed in nominal terms.¹³ Beyond this effect, however, the primary cause of this important debasement needs to be sought in the Ottoman fiscal difficulties discussed earlier.

One unresolved question about the Ottoman debasement concerns a possible link to a similar operation in Iran. In the literature there are a number of references to a similar debasement by Shah Tahmasp in Iran in 1584 arising from fiscal pressures associated with the war against the neighbor to the west. Ottoman governments had always been concerned about the outflows of silver to Iran and occasionally they attempted to restrict or prohibit these flows. They preferred that merchants from Iran buy Ottoman goods in return for their silk rather than carry silver with them. The frequency of these interventions and prohibitions increased during the third quarter of the sixteenth century both because the flows increased and because the two sides were engaged militarily.¹⁴ A debasement in Iran may have forced the Ottomans to follow with a similar move in order to stem a large outflow of silver, which would have brought additional monetary difficulties at a time of war. Such a competitive devaluation might help explain both the timing and the magnitude of the

¹² N. Beldiceanu, "La Crise Monétaire Ottomane au XVI^e Siècle et son Influence sur les Principautés Roumaines," *Südost-Forschungen* 16 (1957), 70–86 and S. Rizaj, "Counterfeit of Money on the Balkan Peninsula from the fifteenth to the seventeenth century," *Balkanica* 1 (1970), 71–79. İnalçık, "Impact of the Annales Schools," 90–96. An important exception is Barkan who emphasized that the basic causes of the debasement were fiscal; Barkan, "The Price Revolution," 17–22.

¹³ See p. 128.

¹⁴ H. Sahillioğlu, "Kuruluşun XVII. Asrın Sonlarına Kadar Osmanlı Para Tarihi," 188–96.

Ottoman operation against the background of long-term fiscal difficulties.¹⁵ Unfortunately, however, the available numismatic evidence on Safawid coinage is not sufficiently detailed to establish the existence of an Iranian debasement in 1584.¹⁶

Fiscal crises and monetary instability

The fiscal difficulties of the central government lasted well into the seventeenth century. Social and political upheavals known as the Celali rebellions beginning late in the sixteenth and lasting well into the seventeenth century only exacerbated these fiscal difficulties. As the peasants took flight or returned to nomadism, agriculture, especially commercial agriculture, and tax revenues were adversely affected. As a result, it appears that in the Balkans and Anatolia, and perhaps even in Syria, the demographic and economic expansion of the sixteenth century came to an end in the 1580s or somewhat later. Population and economic activity stagnated and may have even declined in many parts of the Empire during the seventeenth century.¹⁷

Another related cause for the financial difficulties of the central government was the decline in its political power and the growing difficulties associated with the collection of provincial taxes and their transmission to the center. Various provincial groups began to capture an increasing share of the tax revenues at the expense of the central government.¹⁸ Yet another

¹⁵ Recently, Kafadar ("Les Troubles Monétaires"), has also emphasized the importance of these bullion flows in understanding the Ottoman debasement.

¹⁶ Numismatic evidence on this question is sketchy. See S. Album, *A Checklist of Islamic Coins*, second edition (Santa Rosa, CA: S. Album, 1998), 125–29; H. L. Rabino, *Coins, Medals and Seals of the Shahs of Iran, 1500–1941* (Algiers: Borgomale, 1945); and H. Farahbakhsh, *Iranian Hammered Coinage, 1500–1879 AD* (West Berlin: N. Farahbakhsh, 1975). F. Braudel, *The Mediterranean and the Mediterranean World in the Age of Philip II* (London: William Collins and Sons, 1972), vol. 1, 540, places the Iranian debasement just before the Ottoman move; N. Steensgaard, *The Asian Trade Revolution of the Seventeenth Century: the East India Companies and the Decline of the Caravan Trade* (Chicago, IL: The University of Chicago Press, 1974), 419 is inclined to push it back in time; H. İnalcık, "Osmanlı İmparatorluğu'nun Kuruluşu ve İnkişafı Devrinde Türkiye'nin İktisadi Vaziyeti Üzerine Bir Tetkik Münasebetiyle," *Belleten* 15 (1951), 629–90, states that the two debasements occurred around the same time. The chronicler Selaniki's comment that the shahi was the first to become defective might mean either that the Iranian currency was first debased or that the Ottoman shahi circulating in those regions bordering on Iran was debased in response to the debasement of the Iranian currency; see Kafadar, "When Coins Turned into Drops of Dew," 100–102.

¹⁷ S. Faroqhi and L. Erder, "Population rise and fall in Anatolia, 1550–1620," *Middle Eastern Studies* 15 (1979), 322–45; İnalcık, "Military and Fiscal Transformation"; and Faroqhi, "Crisis and Change," 411–636.

¹⁸ Metin Kunt has provided a detailed and vivid example of how provincial revenues were appropriated by local forces in the seventeenth century. By examining in detail the account books of the governor of Diyarbekir in 1670–71, he showed that the annual revenues of the governor reached 16 million akçeş, far in excess of a governor of his stature in the sixteenth

adverse development for both the economy and state finances was the impact of the discovery of the sea route to Asia upon the intercontinental trade routes which passed through the Ottoman Empire. After a setback at the beginning of the sixteenth century, these trade routes had regained their former importance, and by the end of the century, the transcontinental caravan routes reached dimensions which must be regarded as their historical peak. The shift of the intercontinental trade to the Indian Ocean did not come until the early decades of the seventeenth century when the Dutch and English trading companies wrested control away from the Portuguese. While the ocean finally triumphed, after a lag of a hundred years, over the mainland, towns of the Levant along the caravan route as well as the Ottoman state finances felt the decline in commercial activity.¹⁹ The decline in commercial activity must also have reduced the use of money in these regions, if not beyond.

Another source of instability for the akçe was the decline of Ottoman silver mines. Until the sixteenth century, the Ottoman mints relied on the state-operated silver mines of Serbia and Bosnia as the principal source of specie.²⁰ The arrival of large amounts of silver from the New World, however, lowered the relative price of that metal, eventually leading to the closure of these mines. There occurred a sizable decline in the output of Ottoman silver mines in the Balkans after the turn of the century. This was especially the case for the important mine in Üsküp (Skopje). Activity in these silver mines came to a virtual halt in the 1640s.²¹ When fiscal pressures began to intensify, therefore, the state could not fall back on the earlier sources of silver to maintain steady supplies of coinage.

Intercontinental monetary flows may have contributed more directly to the Ottoman monetary difficulties. Despite the continued and even increasing flows of silver from the Americas, it is well known that silver shortages actually intensified in many parts of Europe during the seventeenth century.²² If silver flows to Asia and specifically to China increased during this period either by direct shipments from the Americas or via Europe as Dennis O. Flynn, Arturo Giraldez, and Richard von Glahn argue,²³ the growing shortages of silver in Ottoman lands may have been due to these intercontinental flows as well. However, the continued

century after adjusting for inflation. İ. M. Kunt, *Bir Osmanlı Valisinin Yıllık Gelir-Gideri: Diyarbekir, 1670–71* (Istanbul: Boğaziçi Üniversitesi Yayınları, 1981).

¹⁹ Steensgaard, *Asian Trade Revolution*, 9; also S. Subrahmanyam, "Precious Metal Flows and Prices in Western and Southern Asia, 1500–1750: some Comparative and Conjunctural Aspects," *Studies in History* 7 (1991), 79–105.

²⁰ See chapter 2, pp. 36–38.

²¹ Rhoads Murphey, "Silver Production in Rumelia according to an Official Ottoman Report circa 1600," *Südost-Forschungen* 33 (1980), 76–86. It is worth noting, however, that the decline in Ottoman silver mines occurred considerably later than those in Europe. Compare with F. C. Spooner, *The International Economy and Monetary Movements in France* (Cambridge, MA: Harvard University Press, 1972), 24–53.

²² Spooner, *International Economy*, 33–53. ²³ See chapter 7, pp. 114–18.

circulation of European groschen, especially the Spanish pieces of eight and the Dutch thaler, throughout the Empire indicates that silver did not disappear altogether from Ottoman markets.

The debasement of 1585–86 thus did not bring an end to Ottoman monetary difficulties. The period until the 1640s was one of exceptional instability for the akçe; the fluctuations of the currency can be followed from a combination of sources. As shown in table 8.2, the available mint records provide information about the weight and silver content of the standard akçe only for selected years of this period. For most years of this period, however, the akçes produced by the mints fell below those standards. Although the silver content of the substandard or defective (*hurde*) coins can not be determined precisely, court records provide, on a monthly basis, detailed information about their market exchange rates against the stable Venetian ducat and other leading European coins. From these exchange rates, it is possible to approximate the sharp fluctuations in the silver content of the Ottoman unit. For example, from the last column of table 8.2 it appears that during 1623–24 the silver content of the akçe dropped to about one third and during 1638–40 to about half of its standard levels. Each time the deterioration of the akçe reached crisis proportions, the government attempted to go back to the old standard or establish a new standard. These operations called *tashih-i sikke* (correction of coinage), were carried out in 1600, 1618, 1624 and 1640.²⁴ Adding to the confusion were the clipped versions of the standard akçes which circulated together with the substandard versions. Not surprisingly, the counterfeiting of Ottoman silver coins flourished in this environment.

Halil Sahillioğlu has pointed out that another factor influencing the timing of financial crises and possibly of the debasements was the *sivîş* or leap years. He has argued that the tax collections of the imperial treasury from agriculture and other related sources were based on the solar year. Its outlays, on the other hand, most importantly its payments to the soldiers were quarterly based on the Islamic lunar calendar which is 11 days shorter than the solar year. As a result, once every 34 years, the treasury had to

²⁴ Sahillioğlu, "Role of International Monetary Movements," 269–304; and Kafadar, "Troubles Monétaires," 381–400. These operations were similar to the *renforcements* of Western Europe. J. H. Munro, "Deflation and the Petty Coinage Problem in the Late-Medieval Economy: the Case of Flanders, 1334–1484," *Explorations in Economic History* 25 (1988), 392–3. After each of these operations the state faced the task of forcing prices down. For this purpose, local governments prepared very detailed lists of price ceilings (*narh*) for hundreds of goods. These lists which are available not only for Istanbul but for other cities and towns as well now constitute useful sources not only for price history but also for studying the range of economic activity in the urban centers. M. Kütükoğlu, *Osmanlılarda Narh Müessesesi ve 1640 Tarihli Narh Defteri* (Istanbul: Enderun Kitabevi, 1983), 3–56; and M. Kütükoğlu, "1624 Sikke Tashihinin Ardından Hazırlanan Narh Defterleri," *Tarih Dergisi* 34 (1984), 123–82.

make payments twice while collecting agricultural taxes only once during a twelve month period. Sahillioğlu shows that fiscal difficulties intensified during these years.²⁵

One important question here which has been debated extensively in the recent literature on the monetary history of the late Medieval and Early Modern periods is whether the government employed debasements as a long-term strategy for generating revenue.²⁶ While these Ottoman debasements were the result of fiscal difficulties, and the state appeared to benefit in the short run from the production of substandard coinage, the available evidence suggests that such a strategy did not exist during this particular period. The frequency of correction of coinage operations which increased the silver content of the akçe also suggest that the government tried to maintain the standards of coinage but was unable to do so.²⁷

Perhaps the most important reason for the government's struggle for a stable currency and the major constraint against a more systematic use of debasement as a fiscal tool was the opposition of the janissaries in Istanbul who were paid with this coinage. After the debasement of 1585–86, they revolted and demanded the execution of the high-level official responsible for the currency; their request was accepted by a sultan eager to find a scapegoat.²⁸ The janissaries remained a force to be reckoned with in the

²⁵ H. Sahillioğlu, "Sivış Year Crises in the Ottoman Empire," in M. A. Cook (ed.), *Studies in the Economic History of the Middle East* (London: Oxford University Press, 1970), 230–49.

²⁶ For example, Miskimin has argued that in the fourteenth and fifteenth century, French debasements reflected, more than anything else, the despair of the rulers and did not help them fiscally. Bordo has questioned this argument and in recent studies Sussman and Motomura have argued that debasements were employed as a rational, and sometimes long-term strategy for raising fiscal revenue in fifteenth-century France and seventeenth-century Spain. H. A. Miskimin, *Money and Power in Fifteenth Century France* (New Haven, CT: Yale University Press, 1984), 59; M. D. Bordo, "Money, Deflation and Seigniorage in the Fifteenth Century," *Journal of Monetary Economics* 18 (1986), 337–46; N. Sussman, "Debasements, Royal Revenues and Inflation in France during the Hundred Years' War, 1415–1422," *The Journal of Economic History* 53 (1993), 44–70; and A. Motomura, "The Best and Worst of Currencies: Seigniorage and Currency Policy in Spain, 1597–1650," *The Journal of Economic History* 54 (1994), 104–27. Carlo Cipolla has also underlined the fiscal motive in Medieval and Early Modern debasements. C. M. Cipolla, *Money, Prices and Civilization in the Mediterranean World, Fifth to Seventeenth Century* (Princeton University Press, 1956), 28; and C. M. Cipolla, "Currency depreciation in Medieval Europe," *Economic History Review* 15 (1963), 413–22.

²⁷ Since the relevant mint records are not available, the volume of coin production for each subperiod can not be established. It appears, however, that the mint volume remained sporadic and coins were produced whenever the state was able to acquire specie. Years of maximum debasement often coincided with the lack of specie and low output and not vice versa.

²⁸ Known as the "Beylerbeyi Incident," this episode in 1589 was only the second time in Ottoman history that the janissaries organized a major revolt against a debasement. It ended with the beheading of the Rumeli Beylerbeyi Mehmed Paşa who had been in charge of the currency reform and attempted to collect additional revenue to meet the expenditures associated with the monetary reform by imposing a new correction-of-coinage tax which roughly equaled two days worth of wages and about 1 percent of wealth for all property owners, and the head treasurer Mahmud Efendi. Even though it has been noted by almost

turbulent politics of the capital city during this period. They succeeded in deposing two sultans in 1622 and 1623.²⁹ Of the four correction-of-coinage operations undertaken during this period, the last three took place after the accession to the throne of new sultans. All of these were attempts, at least in part, to win the good will of the urban population, especially the soldiers.

The debasements and monetary instability of this period stand in sharp contrast to the policy of periodic debasements undertaken during the reign of Mehmed II examined in chapter 3. The debasements of the fifteenth century were undertaken by a strong central government for long-term fiscal benefits and the opposition of the janissaries was neutralized by a variety of material benefits including raises in their salaries made possible by the successful military campaigns. During the late sixteenth and early seventeenth centuries, however, the debasements emerged only as short-term measures undertaken by weak governments struggling against the fiscal burden of prolonged military campaigns and a variety of political problems.

Disappearance of the akçe

In addition to the instability, the debasements reduced the akçe to an exceptionally small and thin coin. Its weight and silver content declined from about 0.7 grams in the 1580s to 0.3 grams in 1640. It thus became very difficult to handle; large numbers of akçes were needed even for small, daily transactions. Larger silver coins such as the 10-akçe piece were minted only occasionally and these disappeared quickly when substandard akçes flooded the markets.³⁰ The government also began to mint a new coin, called *para*, which was based on the monetary unit in circulation in Egypt and parts of Syria and carried three times as much silver as the akçe.³¹ The volume of *para* production in Istanbul remained limited, however.

It appears that half a century of instability and the inconvenience of using akçes in daily transactions led to a considerable degree of currency substitution. The public became increasingly reluctant to hold the akçe or take

every Ottomanist since Hammer as a climactic event, this incident has not yet received a systematic treatment. Kafadar, "Les Troubles Monétaires"; also Kafadar, "When Coins Turned into Drops of Dew," 70–80.

The first such rebellion had occurred in 1444 in response to the first of Mehmed II's series of debasements and had led to a pay raise as discussed in chapter 3. An important reason for the long interim was the stability of the Ottoman currency. The specie content of the akçe changed very little from the 1480s until the 1580s. See table 4.1.

²⁹ S. J. Shaw, *History of the Ottoman Empire and Modern Turkey*, vol. I: 1280–1808 (Cambridge University Press, 1976), 193–94.

³⁰ A. C. Schaendlinger, *Osmanische Numismatik* (Braunschweig: Klinkhardt and Biermann, 1973), 100–12; see also p. 140 above.

³¹ It appears that the first minting of *para* in Istanbul was undertaken during the reign of Murad IV, between 1623 and 1640, possibly in 1640. Schaendlinger, *Osmanische Numismatik*, 110.

bullion and foreign coins to local mints. Instead, there emerged greater demand for the more stable European coinage, especially the well-known, large silver pieces of the seventeenth century.³² It is possible that during these extended periods of deterioration of the Ottoman unit, European coins began to circulate at a premium over their small Ottoman counterparts, measured in terms of their respective silver content. Since the precise mint records are not available, however, except for the years of correction-of-coinage operations, the existence and magnitude of these premiums can not be established from the available evidence summarized in tables 8.2 and 8.3.³³

While it became increasingly difficult for the government to attract silver to the mints, the continuing fiscal problems and the closure of the silver mines made it impossible for the state itself to supply the mints, leading to a deterioration in the quality of coinage, especially in the provinces. As a result of these difficulties, the government began to close down the mints. The volume of silver and gold coin production at the Istanbul mint declined significantly during the 1640s. The important exception was the *tecdid-i sikke* (renewal of coinage) operations associated with the accession to the throne of Mehmed IV in 1648. Minting activity in Istanbul declined even further after the mid-1650s. It appears that for the next three decades until the mid-1680s, the limited volume of gold and silver coins produced at Istanbul were used primarily by the sultan and his retinue in ceremonial occasions.³⁴

Very little information is available about the activities of the provincial mints during this period. In sharp contrast to the large numbers of active mints in the earlier period, the archival evidence points to limited activity in a small number of mints during these decades. In addition the quantity and the quality of provincial coinage also began to decline, but neither the local authorities nor the central government were able to uphold the existing standards due to the low volumes of silver arriving at the mints. In orders sent to provincial mints, the government expressed its reluctance to maintain operations in view of the poor quality of coinage being produced.³⁵

³² Carlo Cipolla has examined another episode of currency substitution, the "Affair of the Quattrini," which occurred in fourteenth-century Florence. C. M. Cipolla, *The Monetary Policy of Fourteenth-Century Florence* (Berkeley and Los Angeles, CA: University of California Press 1982), 63–85.

³³ Until 1642 when its silver content was reduced by 20 percent, the Spanish real was minted at 67 per marc of 230.05 grams. The eight-real piece thus contained 27.46 grams of silver. Motomura, "The Best and Worst of Currencies," 106–07; and W. A. Shaw, *The History of Currency, 1252 to 1894* (New York and London: G. P. Putnam's Sons and Clement Wilson, 1896), 340–41. Considering that the akçe was minted from approximately 90 percent pure silver, the exchange rates given in tables 8.2 and 8.3 for the years of correction-of-coinage operations do not point to the existence of such premiums.

³⁴ Sahillioğlu, "Osmanlı Para Tarihi," 18–36.

³⁵ *Ibid.*, 36–37 provides evidence of minting activity for Bagdad, Damascus, Aleppo, and Belgrade. This is remarkably consistent with the numismatic evidence cited below.

Table 8.3. *The exchange rates of European coins expressed in akçes, 1584–1731*

Years	Venetian Ducat	Spanish eight-real (riyal guruh)	Dutch lion thaler (esedi guruh)	Polish isolette (zolota)
1584	65–70			
1588	120	80	70	
1600	125	78	68	48
1618	150	100		
1622	180–210	120–150		
1624	330–420	170–320		
1625	120	80	70	50
1628	190	100–110		
1632	220	110	100	70
1640	270	125		
1641	168	80	70	
1646	170	80	80	38
1650	175	90	80	
1655	175	90	90	
1659	190	88	78	48
1668	250	110	100	66
1672	300	110	100	
1676	300	125	120	80
1683	300	130	120	
1691	300–400	120–160	120–160	88–107
1698	300–400	120–160		88
1708	360			
1725	375	181	144	88
1731	385	181	144	88

Notes

1 See the notes to table 8.2.

2 The exchange rates presented here are mostly market rates at Istanbul. Market rates showed regional differences within the Empire.

3 The gold content of the ducat is given in table 3.1. Unlike the previous period there emerged a difference of up to 10 percent in the seventeenth century between the exchange rates of the ducat and the sultani in favor of the former. It is not clear to what extent this difference was due to a decline in the gold content of the sultani.

4 The Spanish eight-real was a stable coin and contained close to 25.6 grams of pure silver. It appears, however, that the silver content of the other coins circulating in the Ottoman markets declined over time as suggested by their exchange rates. The silver content of the Dutch lion thaler declined at least to 74–77 percent. Late in the century the isolette contained 60 percent silver.

5 From 1691 the central government began to apply different rates to coins received and coins used as payment in order to generate additional revenue. The rates at which the coins were accepted by the government reflected the market rates more closely.

Sources

R. Mantran, *Istanbul dans la Seconde Moitié du XVII^e Siècle* (Paris, 1962); Sahillioğlu, “Bir Asırlık Osmanlı Para Tarihi,” “Sikkelerin Raici,” and “The Role of International Monetary Movements”; Ö. L. Barkan, “Edirne Askeri Kassamı’na ait Tereke Defterleri (1546–1659),” *Türk Tarih Kurumu, Belgeler* 3 (1966); M. Belin, *Türkiye İktisadi Tarihi Hakkında Tetkikler* (trans. from French by M. Ziya) (Istanbul: Devlet Matbaası, 1931); B. S. Baykal, “Osmanlı İmparatorluğu’nda XVII. ve XVIII. Yüzyıllar Boyunca Para Düzeni ile İlgili Belgeler,” *Türk Tarih Kurumu, Belgeler* 7–8 (1967).

Numismatic evidence sheds additional light on the operations of Ottoman mints during this period. Since most Ottoman coins carry the name of the sultan, the year of his accession and the location of the mint, it is possible to follow, on the basis of coins available in collections and catalogues, the decline in the numbers of provincial mints active during each reign. According to these catalogues, the number of active mints producing silver akçe reached its peak late in the sixteenth century. During the twenty-one-year reign of Murad III (1574–1595), the akçe was minted in at least thirty-eight locations around the Empire, most of them in Anatolia and the Balkans. The number of mints producing akçe remained at the same level, close to forty, during the eight-year reign of Mehmed III (1595–1603).³⁶ More than a quarter century later, during the seventeen-year reign of Murad IV (1623–1640), the number declined to close to thirty.³⁷

The number of active mints declined sharply during either the 1630s or the 1640s. Numismatic catalogues can point to no more than four locations producing the akçe during the reign of the next sultan Ibrahim I (1640–48). After this shift, the number of mints producing silver coinage remained low until the 1680s. For the long reign of Mehmed IV (1648–87), the same catalogues currently list no more than seven locations for akçe and the larger para.³⁸

Clearly, these numismatic lists of locations are not final and a few but not many more additions to these lists are possible. Even with some additions, however, this trend towards substantially fewer active mints beginning in the second quarter of the century should remain intact. Moreover, it has already been established from archival evidence that the mint in Istanbul did not increase its output to compensate for the decline in the provinces. On the contrary, its volume remained sharply lower until the 1680s. Combining the two types of evidence, we can state with confidence that there occurred a substantial decline in the production of silver and gold Ottoman coinage during these decades.

For reasons that have not yet been fully established, the minting of copper coinage also remained limited during this period. Numismatic evidence points to an almost complete absence of Ottoman copper coinage for almost half a century, from the 1630s until the late 1680s.³⁹ This is quite

³⁶ These figures refer to the total numbers of mints that produced the silver akçe with a particular sultan's name. Since the Ottoman coins of this period did not feature regnal years, it would not be clear from this evidence how many of these mints were active during any given year.

³⁷ These were the mints at Istanbul, Diyarbakır, Damascus, and Cairo. Schaendlinger, *Osmanische Numismatik*, 102–06; and M. Erüreten, "Osmanlı Akçeleri Darp Yerleri," *The Turkish Numismatic Society Bülten*, 17 (1985), 15–18.

³⁸ The mints cited were in Istanbul, Belgrade, Novaberde, Diyarbakır, Damascus, Aleppo, and Cairo. Schaendlinger, *Osmanische Numismatik*, 106–13 and Erüreten, "Osmanlı Akçeleri Darp Yerleri," 18–19.

³⁹ Tavernier, for example, is unequivocal: "In all the Ottoman Empire, there is not any money of copper to be seen." J. B. Tavernier, *A New Relation of the Inner Port of the Grand*

intriguing since many states in Europe, from Spain and France to Germany, Sweden, Poland, and Russia relied on copper coinage during this period both as a medium of exchange and to raise seigniorage revenue.⁴⁰ The absence of copper coinage is all the more puzzling because towards the end of the century, during another fiscal crunch from 1689 to 1691, the government did exactly what it had failed to do earlier. It issued, within a thirty-two-month period, as many as 600 million pieces of copper *mangır*.⁴¹

It appears that the failure or inability of the central government to issue copper coinage during the mid-century was not due to one single reason but a combination of factors. One possibility is that adequate supplies of copper were simply not available. Of the two Anatolian mines in Gümüşhane and Küre, which were active during the 1690s and which supplied part of the copper for that experiment, the latter was not active in mid-century.⁴² The availability of copper was not a significant bottleneck, however, since the government could have acquired, at least in the short run, substantial volumes of used copper from the local markets as it did in the 1690s.

The organizational and technological reasons were probably much more important. The right to issue copper coinage in the provinces was typically auctioned off by the government to private entrepreneurs, as was the case for some of the mints producing silver coinage. Since the nominal value of the *mangır* had always been in fractions of the *akçe*, such as one-eighth or one-fourth, the decline in the value and purchasing power of the *akçe* after the debasement of 1585–86 brought the costs of production of copper coinage closer to their nominal values and reduced the margin for seigniorage. The private entrepreneurs were thus reluctant to purchase the regional *mangır* monopolies under those circumstances. This was probably the most important reason for the breakdown of the network of provincial mints producing copper coinage. One possible solution would have been to raise the nominal value of copper coins to at least one-half *akçe* or even to one *akçe* which was done in the 1690s when the mint in Istanbul and not the regional mints issued the copper coinage. The provincial markets may not have accepted locally produced copper coinage with higher nominal values, however.

Another important shortcoming of the Ottoman mint system around mid-century was technological. Until the 1690s the Ottomans continued to use the traditional hammer and produced coins of inferior quality. Perhaps more importantly, this technology limited the volume of production and dictated a more decentralized approach to the coin supply.

Seignor's Seraglio (London, 1677), 15. For a summary of the numismatic evidence on copper coinage in the seventeenth century, see Schaendlinger, *Osmanische Numismatik*, 106–14.

⁴⁰ Spooner, *International Economy*, 10–86. ⁴¹ See chapter 9, pp. 155–58.

⁴² For mining activity in and government administration of the Küre copper mine in northern Anatolia during the latter part of the seventeenth century, see T. M. Yaman, "Küre Bakır Madenine Dair Vesikalar," *Tarih Vesikalari* 1/4 (1942), 266–69.

When the Ottoman government could not or did not meet the economy's demand for money, this need was met increasingly by European coins, silver and gold.⁴³ Although foreign coins had always circulated in Ottoman lands, they played a qualitatively different role during the seventeenth century. As Ottoman coinage disappeared, the akçe was reduced to little more than a unit of account.⁴⁴ Gold and especially silver European coins in fact became the leading forms of actual money from the Balkans and Istanbul to Anatolia and Syria. Local court records and recent studies by economic and social historians on Ottoman provinces provide ample evidence in this respect.⁴⁵ The Ottoman government did not attempt to restrict the circulation of these coins. In fact, it regularly accepted and sometimes even demanded payment in European coinage.⁴⁶ It also regularly published the rates at which these coins would be accepted by the Treasury. (See table 8.3.) A large part of the silver coins continued to move towards Iran and the ports on the Indian Ocean, however, since the Ottoman economy experienced trade deficits towards the east while it enjoyed surpluses towards the west. (See figures 23 and 24.)

This chapter has examined in greater detail than ever before the monetary difficulties of the seventeenth century and their causes. It has also established that the akçe disappeared from circulation around mid-century. The adverse consequences of these difficulties for the Ottoman economy at large need to be underlined one more time. There are powerful *a priori* reasons why adverse monetary conditions should have unfavorable consequences for the economy. Monetary instability or shortages of specie and coinage have adverse effects on credit, trade, and production. Conversely, the decline in economic activity often contributes to the fiscal troubles of the state and adds to monetary instabilities. My findings about the monetary conditions thus strongly suggest that the seventeenth century was a period

⁴³ For inflows of silver and silver coins across the Polish border to the Ottoman Empire during the late sixteenth and seventeenth century, see D. Kolodziejczyk, "The Export of Silver Coin through the Polish-Ottoman Border and the Problem of the Balance of Trade," *Turcica* 28 (1996), 105–16.

⁴⁴ For a discussion of the term "unit of account," Spufford, *Money and its Use*, appendix II.

⁴⁵ J. B. Tavernier, *Nouvelles relations de l'intérieur du Serrail du Grand Seigneur* (Paris, 1675); and C. Chardin, *Voyages du Chevalier Chardin en Perse et aux Indes Orientales* (London, 1686). In recent times, Robert Mantran was one of the first to point out to the decline of the akçe as a means of exchange. His account is especially striking since it describes the conditions not in the distant provinces but in the capital city itself. Mantran, *Istanbul* Book II, chapter 2, 233–86. With the appearance, during the last decade, of new studies on the economic and social history of the provincial cities which make extensive use of the local court records, it is now possible to obtain a geographically detailed account of the disappearance of the akçe and the rise of European coinage. See chapter 6, pp. 95–111 for details.

⁴⁶ One of the more prominent silver coins in circulation from the Balkans to Egypt was the Dutch thaler (*aslanlı* or *esedi gurus*). Even more important was the Spanish "piece of eight" (*reales de ocho*) known as the *riyal gurus*. There were others such as the Austrian rix-thaler and the Polish isolette. The Venetian ducat together with the Hungarian gold piece in the Balkans remained the most important gold coins. Fractions of these coins also circulated but in a more limited fashion. See chapter 6 for details.

of difficulties for the real side of the Ottoman economy as well. These findings are in general agreement with Suraiya Faroqhi's recent characterization of the economic conditions of the seventeenth century as "crisis and partial recovery."⁴⁷

⁴⁷ Faroqhi, "Crisis and Change," 433–70.

In the absence of domestic currency

For almost two decades during the middle of the seventeenth century, French, Italian, and Dutch merchants minted in southern France, northern Italy, and elsewhere in Europe large amounts of European coinage whose specie content had been reduced to mostly copper with a thin silver coating. These coins were then transported across the Mediterranean and used as payment for Ottoman goods or even sold wholesale to local merchants and moneychangers. Initially they fetched prices far above their metal content, but these premiums declined over time with the increasing volume of trade that eventually involved hundreds of ships and more than 200 million pieces of coin. The gross revenues of the European merchants have been estimated at more than ten million Spanish pieces of eight or somewhere between six to eight million Venetian gold ducats.

This episode has been described in detail by at least half a dozen European travelers including the authors of well-known volumes such as Chevalier Chardin, J. B. Tavernier, and Paul Rycaut.¹ Published documents from the archives of mints in northern Italy also confirm the production of these coins.² In addition, the numismatics literature provides a detailed inventory and description of these coins including their inscriptions and dates of production.³ Many of these coins are now available in numismatics collections throughout Europe.

Contemporary European observers were incredulous that debased coins could be so popular in the markets of the Levant. Paul Rycaut lamented that the Turks “had no wit enough to understand” what was happening.⁴ In an article published in the early part of this century, F. W. Hasluck provided the most detailed treatment of the coins involved and insisted that

¹ C. Chardin, *Voyages du Chevalier Chardin en Perse et aux Indes Orientales* (London, 1686), 7–22; P. Rycaut, *History of the Turkish Empire from the year 1623 to the year 1677* (London, 1680), 258–68; and J. B. Tavernier, *A New Relation of the Inner-Port of the Grand Seigneur's Seraglio* (London, 1677), 15–33.

² F. W. Hasluck, “The Levantine Coinage,” *Numismatic Chronicle, Fifth Series* 1 (1921), 58–59.

³ *Ibid.*, 68–76. ⁴ Rycaut, *History*, 258.

“the Turkish public refused to be undeceived.” He concluded that “in all times certain foreign currencies have had special vogue among alien, and especially illiterate nations . . .” The scandalous exploitation of the Turkish markets by the importers of *luigini* was neither the first attempt of its kind nor the last. It differed from others by the scale on which it was carried out, by the success that attended it, in spite of repeated protest and exposure, down to the final abolition of the traffic, and perhaps by the more than ordinary shamelessness of those engaged in it.”⁵ Writers in twentieth-century Turkey have accepted this interpretation and argued that in this “biggest counterfeiting scheme in history,” the unscrupulous European merchants robbed the unsuspecting Ottomans.⁶ It is also interesting that the Ottoman archives, which offer extensive records on a wide variety of phenomena around the Empire, have so far revealed little about this episode.⁷

The apparent puzzle here concerns the popularity of the European coins. Attempts at counterfeiting coins are not always successful and rarely on this scale. It was always easy for the local merchants and moneychangers who initially accepted these coins from the European merchants to assay them, a practice known in the Near East for almost two millenia. Even if the moneychangers were reluctant to divulge their trade secrets, the silver content of these coins could not possibly have remained hidden for so many years. Clearly, it needs to be explained why the Ottoman public was willing to accept them at rates far above their specie content at this particular time.

What the European observers failed to understand was the nature of monetary conditions prevailing in the core regions of the Empire at that time. The willingness of the Ottoman public to accept the debased European coinage can be understood only with reference to the deteriorating monetary conditions. As it was argued in the previous chapter, the massive debasement of 1585–86 was followed by a period of wars, rebellions, fiscal crises, and extreme instability of the silver akçe, lasting until the middle of the seventeenth century. This extended period of monetary volatility resulted in a considerable amount of currency substitution: loss of confidence in the Ottoman currency and a shift by the public towards European coinage which had always circulated in Ottoman lands. When silver stopped coming to the mints and the government was unable to acquire additional supplies, most of the mints were closed down and the production of the silver akçe came to a virtual halt in the 1640s.

⁵ Hasluck, “The Levantine Coinage,” 59–63.

⁶ N. Berkes, *Türkiye İktisat Tarihi, Cilt II* (Istanbul: Gerçek Yayınevi, 1970), vol. II, 183–91.

⁷ Robert Mantran is the first to draw attention to the silence of the Ottoman archives on this episode. R. Mantran, *Istanbul dans la Seconde Moitié du XVIIe Siècle* (Paris, 1962), chapter II; and R. Mantran, “Politique, Economie et Monnaie dans l’Empire Ottoman au XVIIe Siècle,” in O. Okyar and H. İnalçık (eds.), *Social and Economic History of Turkey (1071–1920)*, Papers presented to the First International Congress (Ankara, 1980), 123–25.

For reasons discussed earlier, production of copper coinage was also abandoned during this period.⁸ By the middle of the seventeenth century, the Ottoman markets were in need of money, especially the small denominations for daily use. They were willing to pay a premium for these coins. The Ottoman government had earlier supplied this subsidiary coinage and enjoyed the seigniorage. When the Ottoman government could not or did not fulfill this function, European entrepreneurs were only too happy to serve as suppliers of money. It was in this context that the debased European coinage found widespread acceptance. This perspective is either missing altogether or not adequately considered in the writings of contemporary European observers as well as in more recent interpretations based on those accounts. The study of this interesting episode also makes it possible to reexamine some of the leading monetary issues of the Early Modern period: long-term consequences of debasements, currency instability, currency substitution, and opportunities for seigniorage from petty coinage. It provides a striking example of what might happen when the monetary authority can not or will not supply the markets with domestic currency.

Debased coinage in Ottoman markets

Europe experienced large trade deficits towards Asia during the sixteenth and seventeenth centuries. Often unable to find a sufficient volume of goods to sell to the markets in the East, European merchants paid the difference with bullion and coinage imported from the Americas. There are many accounts of European ships leaving for the Near East and Asia loaded with cargoes of silver and silver coinage and, less frequently, with gold. As a result, large silver coins minted in America and Europe known as *grosso* or *groschen* circulated extensively in Ottoman markets and Asia after 1550.⁹

The episode to be examined here also began with the efforts of European merchants trying to secure coinage before another trip to the Levant in 1653. From that point on, however, it unfolded in a new direction; the trade balances between the western and eastern ends of the Mediterranean ceased to be the driving force for the ensuing monetary flows. Instead, fiscal and

⁸ See chapter 8, pp. 145–47.

⁹ Chaudhuri relates, for example, how the ships of the East India Company occasionally experienced difficulty in securing silver coinage before their departure for Asia. K. N. Chaudhuri, *The Trading World of Asia and the English East India Company 1660–1760* (Cambridge University Press, 1978), 135; see also A. Attman, “The Flow of Precious Metals along the Trade Routes between Europe and Asia up to 1800,” in K. R. Haellquist (ed.), *Asian Trade Routes*, Scandinavian Institute of Asian Studies (London: Curzon Press, 1991), 7–20; W. Barrett, “World Bullion Flows, 1450–1800,” in J. D. Tracy (ed.), *The Rise of Merchant Empires* (Cambridge University Press, 1990), 224–54; and F. S. Gastra, “The Exports of Precious Metals from Europe to Asia by the Dutch East India Company,” in J. F. Richards (ed.), *Precious Metals in the Later Medieval and Early Modern Worlds* (Durham, NC: Carolina Academic Press, 1983), 447–75.

monetary conditions in the Ottoman Empire emerged as the primary explanation for what happened.

When French merchants could not obtain the Spanish pieces of eight due to political tensions between Spain and France, they brought from Marseilles to the eastern Mediterranean a five-sols piece originally issued in 1641 for Louis XIII. This was an attractive coin, probably one of the earliest examples of milled coins to be seen in the Levant. In addition to serving as a medium of exchange, the coin was also used, at least initially, as ornamentation by peasant women who could not afford the more expensive silver and gold pieces.¹⁰

In France twelve of these five-sols pieces exchanged for one gold ecu or one Spanish piece of eight. Soon after their arrival in the Ottoman markets, eight of these coins began to exchange for one piece of eight.¹¹ At this rate, the purchasing power of the five-sols piece was not at all small. If an unskilled construction worker in Istanbul was paid with these coins, he would receive approximately two of them for one day's work.¹² Given the substantial difference in their exchange rates between the western and eastern ends of the Mediterranean, the French merchants soon began to import the five-sols pieces in bulk. After a number of years, they also began to manufacture on a large scale coins of identical weight and appearance but containing smaller amounts of silver and a larger percentage of alloy. The Italians and the Dutch soon joined the trade.

The method used was to approach a local potentate in southern France or northern Italy who possessed the right of coinage and contract him or her for the use of the seigniorial mint in order to strike, with his knowledge, a large number of base coins bearing his name.¹³ Very soon, debased coins minted with the names of the Princess of Trevoux, the Princes of Dombes, Oranges, Monaco, Masse, Avignon, Genova, and others were circulating in the Ottoman markets.¹⁴ In his examination of another episode of trade in debased coinage, Charles Kindleberger emphasizes that this was not an unusual practice in Europe. According to Kindleberger, "many states in Europe were interested in raising seigniorage within their boundaries, but it

¹⁰ Hasluck, "The Levantine Coinage," 56.

¹¹ Chardin, *Voyages*, 7; and Hasluck, "The Levantine Coinage," 56. In the Ottoman markets these coins were called *sumun* (or *tumn*), which meant one-eighth in Arabic-Ottoman. The standard *akçe* exchanged at 80 to 90 for one piece of eight during this period (see table 8.3.). The physical appearance of these coins may have contributed to but can not entirely explain the higher rate they fetched in the Ottoman markets, as will be argued below. Similarly, the large differences in the exchange rates of the five-sols piece between western Europe and the eastern Mediterranean can not be explained away by the east-west differences in gold:silver price ratios. The differences between the gold:silver price ratios at the two ends of the Mediterranean rarely exceeded 10 percent during the sixteenth and seventeenth centuries. See tables 4.2 and 8.3.

¹² This wage rate is taken from construction account books in the Ottoman archives as part of a long-term price and wage study being undertaken by the author.

¹³ Tavernier, *A New Relation*, 16–24.

¹⁴ For a full list, see the catalogue provided by Hasluck, "The Levantine Coinage," 65–71.

was soon discovered that debased money could be taken abroad and exchanged for good money, which could in turn be brought back and recoined with greater seigniorage.”¹⁵ This was not a simple propagation of a monetary crisis from one part of the Mediterranean to the other, however. As far as I can determine, this substandard coinage did not circulate in any significant amount in southern Europe at this time.

As the silver content of the coins began to fall, the inscriptions on the coins began to change. *Bonitatis unciarum sex* (six-twelfths) gave way to *bonitatis unciarum quinque* (five) and then to *bonitatis unciarum quatuor* (four) and even *trium*. In some cases, an Arabic numeral indicating the fineness was inserted at the end of the corresponding legend in Latin. There are also examples of coins on which the Arabic numerals are higher than the standard inscribed in Latin.¹⁶ With the disappearance of silver from the coins and the increasing volume of trade, the market rates of the coins sunk as low as twenty for one Spanish piece of eight, thus making them even more suitable for daily transactions. In the meantime, the mint authorities wanted to prevent the circulation of these coins in Europe. One method was to differentiate the coins for export from those circulating in Europe. Inscriptions like *per totam asiam cvrrrens* (current in all of Asia) or *Voluit hanc Asia mercem De procul pretium eius* (payment for goods in distant Asia) were added to some of the coins to warn Europeans about the boundaries of their circulation.¹⁷

The peak in the traffic was reached between 1656 and 1669. J. B. Tavernier estimates the total volume of European coinage that went through the Ottoman customs at 180 million pieces, or at more than ten million Spanish pieces of eight. In gold, this corresponded to more than six million Venetian ducats. In addition, some unknown quantity was smuggled into Ottoman territory in part by bribing customs officials. According to another estimate, an average of twenty-two ships arrived at the port of Izmir every year during this period, all loaded with these debased pieces.¹⁸ Such volumes suggest that the remaining good coins in the Ottoman markets were being taken back to southern Europe and reminted as base ligini and reimported to the Ottoman markets.¹⁹

Belated government intervention

The arrival of enormous volumes of debased coinage eventually glutted the Ottoman markets and created adverse consequences for the economy and

¹⁵ C. P. Kindleberger, “The economic crisis of 1619 to 1623,” *The Journal of Economic History* 51 (1991), 158.

¹⁶ Hasluck, “The Levantine Coinage,” 59.

¹⁷ Hasluck, “The Levantine Coinage,” 65–71, 86.

¹⁸ Tavernier, *A New Relation*, 30.

¹⁹ Hasluck, “The Levantine Coinage,” 59.

for European trade. European accounts emphasize that while merchants who brought debased coinage were willing to offer high prices for Ottoman goods, those that did not could not compete for Ottoman exports. The English merchants who were prohibited by the English consul in Izmir from participating in this trade were thus driven out of Ottoman markets. In turn, they and the English representatives began to pressure the Ottoman authorities to prohibit the circulation of base coinage. Other unfavorable consequences were being felt in those regions of southern Europe exporting the base coinage. Faced with a net outflow of silver, the parliament of Provence as well as the Chamber of Commerce of Marseilles attempted to ban this traffic in 1665.

The Ottoman authorities were not necessarily pleased with the outcome, but they were deeply involved in a long and protracted war with Venice over Crete. As long as the war continued, the government could not mobilize the necessary financial resources to stabilize or reform the currency. Until that time debased coinage was better than no coinage. The economy had come to depend on the debased coinage for its daily functioning. Similarly, the state continued to receive tax revenues and make payments with the debased coins. This pragmatism may help explain why so little material has so far been located in the Ottoman archives about the debased coins while European observers paid so much attention to the same phenomenon. The government made several attempts to restrict the importation of these coins and seized some of the cargoes. As long as the war went on, however, these half-hearted attempts to ban the use of base coinage proved unsuccessful.

As the war came to an end, the government moved to take more serious action. In 1669 it was announced that base coinage would no longer be accepted in tax payments. The government also demanded that all debased coinage be brought to the mints and reminted at the earlier standards. Later in the same year, riots broke out in Bursa and Ankara when defaulters who could not find "good" money to pay their taxes were imprisoned by the local authorities. "The torrent of the peoples' rage was not appeased without the blood and lives of some of their officers, alleging with good reason that their ministers and governors, having introduced or permitted this money amongst them, and allowed it as current in that manner, as they had for some years known no other for all the fruits of their labour and their possessions, they ought not now refuse to receive that which they themselves had made passable."²⁰

The willingness of the Ottoman public to accept the debased European coinage, then, can not be understood without this context. The invasion of the Ottoman markets by debased European coinage, their widespread acceptance, and the premia they fetched over and above their specie content

²⁰ Hasluck, "The Levantine Coinage," 61, citing Rycaut, *History*, appendix VIII.

were due to the absence of subsidiary coinage for the daily functioning of the economy. If the government had been able to issue copper coinage in sufficient volumes as the silver *akçe* began to disappear in the 1640s, it would have met the economy's demand for a medium of exchange and, at the same time, raised substantial amounts of revenue for the much deprived imperial treasury, especially during the war. In the absence of copper coinage, however, those seigniorage revenues were captured by the mints and merchants from the other end of the Mediterranean.

The return of copper coinage

Ottoman copper coinage had been conspicuously absent during mid-century. In response to another fiscal crunch in 1690–91, however, the government was able to issue, within a thirty-two month period, approximately 600 million copper mangırs with the nominal value of one *akçe* each. On the whole, this was a successful operation for the short period it was employed. It provided the state with much needed seigniorage revenue as indicated by the detailed records of the mint at Istanbul.

Until late in the seventeenth century, production technology in Ottoman mints had remained basically unchanged. While a small number of mints employed large numbers of workers, most were small to medium sized enterprises following the small-craft traditions. Various handtools including the well-known hammer were used in the production of silver and copper coins.²¹ The adoption of more advanced technology in Europe and the circulation of these coins around the Empire had put the Ottoman mints increasingly at a disadvantage both in terms of the quality of the coins and the volume of output. For this reason, the Ottoman government imported from France new machinery and equipment utilizing the mechanical technology for striking the coins and producing them with milled edges.²² These were installed in the Istanbul mint, probably in 1686, by a technician of European origin named Cerrah (surgeon) Mustafa. The intention at the time was to replace the *akçe* with a new monetary unit anchored around large silver coins.²³

After the dethroning of Mehmed IV in 1687, one immediate problem for

²¹ For Ottoman minting technology until the seventeenth century, see chapter 2, p. 36.

²² A detailed list of this equipment is given in an inspection report of the central government; see H. Sahillioğlu, "The Introduction of Machinery in the Ottoman Mint," in E. İhsanoğlu (ed.), *Transfer of Modern Science and Technology to the Muslim World* (Istanbul: IRCICA, Research Centre for Islamic History, Art and Culture, 1992), 266–67. For details of the mechanical minting technology adopted in many parts of Europe during the sixteenth and especially the seventeenth centuries, see P. Grierson, *Numismatics* (Oxford University Press, 1975), 111–18.

²³ H. Sahillioğlu, "Bakır Para Üzerine Bir Enflasyon Denemesi (H.1099–1103/1687–91)," *The Turkish Numismatic Society Bulletin* 10 (1982), 11–12; and Sahillioğlu, "Introduction of Machinery," 265–66.

the new sultan, Süleyman II, was to find enough specie and coinage to pay the soldiers the customary accession gift (*cülus bahşişi*). The treasury was weak and the regular salaries of the soldiers had been unpaid for almost one year. In response, a variety of new extraordinary taxes were assessed on the population of Istanbul which led to widespread discontent in the capital city. As the fiscal difficulties continued, the government decided to produce copper coinage with the new minting equipment. The Istanbul mint thus began to strike the new mangır or mankur in December 1688. Each copper coin weighing half dirham or 1.603 grams was at first valued at one half akçe but as these proved to be popular with the public, their value was quickly raised to one akçe each. (See figure 25.)

In order to raise the volume of mangır production, new buildings were added to the Istanbul mint, raising its capacity from 300 to 400 thousand pieces to 600 thousand pieces per day within a few months. The other bottleneck was the availability of copper. The Istanbul mint first made use of copper extracted from the state controlled mines at Küre of Kastamonu and Gümüşhane, both in northern Anatolia. When the output from these mines proved insufficient, scrap copper had to be purchased at the market.²⁴

The new coins began to circulate in a wide area in the Balkans and Anatolia, from Thrace, Macedonia, and the Aegean islands to western Anatolia and the Black Sea coast. Some merchants in the provinces resisted the mangır and the government had to announce that copper coinage would be accepted for up to one third of tax payments.²⁵ On the whole, however, the new coinage was widely accepted. This should not be surprising in view of the popularity of the debased European coinage in the earlier period. The markets were still in need of a means of exchange and the Ottoman state stood to earn considerable amount of seigniorage revenue simply by providing that medium. As Carlo Cipolla has emphasized, petty coinage need not create problems as long as its volume did not exceed the volume necessary for petty transactions.²⁶ Eventually, the government may have crossed that line because there is evidence that in the third year of the experiment, additional mankur began to be minted in order to finance various government projects, large and small.²⁷

The minting of copper coins provided the state with substantial seigniorage during the thirty-two months this experiment lasted. The detailed

²⁴ I.E.Dp. 96.

²⁵ Ahmet Refik, *Hicri Onikinci Asırda İstanbul Hayatı* (Istanbul: Devlet Matbaası, 1930), 3–4.

²⁶ C. M. Cipolla, *Money, Prices, and Civilisation in the Mediterranean World, Fifth to Seventeenth Century* (Princeton University Press, 1956), 27–37; also J. H. Munro, "Deflation and the Petty Coinage Problem in the Late-Medieval Economy: the Case of Flanders, 1334–1484," *Explorations in Economic History* 25 (1988).

²⁷ For the explicit link between the minting of new mangır and the repairs of fortresses in Crimea, see BOA, A. E. Süleyman, 94, dated 1102 H (1691–92). In addition to the capital city, the mangırs were minted in Bosnia; see C.D. 2258; I.E.Dp. 49 and 71.

Table 9.1. *Net revenues of the state from copper coinage, 1688–91*

1	Average cost of raw copper in akçes per 100 okka	$110 \times 100 = 11,000$ akçes
2	Copper wasted during production	1/11 or 9.1 okka per 100 okkas
3	Profit share of the private mint management	2/10 or 20 okkas per 100 okkas
4	Value of copper mangirs produced per 100 okkas of copper	$70.9 \text{ okkas} \times 800 \text{ akçes per okka} = 56,720$ akçes
5	Net profits of the state per 100 okkas of copper ($5 = 4 - 1$)	$56,720 - 11,000 = 45,720$ akçes
6	Total weight of copper delivered to the Mint by the state, 1688–1691	851,000 okkas
7	Approximate total profits of the state, 1688–91 $7 = \frac{5 \times 6}{100}$	389 million akçes
8	Total profits of the state in Venetian ducats $8 = 7/270$	1.4 million ducats
9	Total revenues of the central government during this thirty-two-month period (approx.)	3200 million akçes
10	Share of revenues from copper coinage in total revenues of the central government $10 = 7/9$	12.1 percent

Note: 1 okka = 1.28 kilograms

Source: H. Sahillioğlu, "Bakır Para Üzerine Bir Enflasyon Denemesi (H.1099–1103/1687–91)," *The Turkish Numismatic Society Bulletin* 10 (1982, 13–19).

account books of the Istanbul mint show that, depending on the changing price of copper and the volume of mint output, the purchases of copper and costs of production including payments to the private managers of the mint added up to approximately 30 percent of the nominal value of the 600 million coins produced.²⁸ The rest accrued to the state as net seigniorage revenue. These net revenues were around 380 million akçes, or about 1.4 million gold ducats at the existing rate of exchange. Annual revenues of the imperial treasury were around 1,200 million akçes during these years.²⁹ The net revenues of the mangır experiment thus accounted for approximately 12 percent of all receipts of the imperial treasury during the same thirty-two month period. (See table 9.1.) These calculations show that the mangır experiment provided substantial support to the hard-pressed treasury.

The presence of large seigniorial profits, however, attracted many

²⁸ Perhaps one-fourth of this total volume was due to the reminting of the earlier coins after the accession of Sultan Ahmed II in 1691.

²⁹ H. Sahillioğlu, "Bir Asırlık Osmanlı Para Tarihi," 183.

counterfeiters especially around Thrace, Salonika, and Izmir. Some counterfeit versions of the mangır even began to arrive from Europe. The second such shipment was intercepted by the government. The circulation of the mangır became more difficult after the appearance of counterfeit versions. In the provinces some merchants refused to send shipments of food to Istanbul unless the payments were made in gold or silver. The government was forced to intervene frequently and enforce the circulation of the coins.

In response to these difficulties as well as the reduction in the seigniorage revenues, the government decided, after the accession of the new sultan Ahmed II in 1691, to discontinue the mangır and not recognize the existing coins in payments to the state. Under pressure from the public, however, a compromise settlement was reached. The holders of mangır agreed to bring their coins to the mint and pay 300 mangır per okka of coins, or 38 percent of the face value of the coins, as mint charges in return for the striking of new mangır with the new sultan's name. The mangır episode did not last much longer, however. The production of copper coins was discontinued and the existing stock was melted later in the same year.³⁰

The economic and fiscal circumstances surrounding this experiment were not very different from those of the mid-century when debased European coinage invaded the Ottoman markets, with the exception that in the earlier episode it was the European mints and merchants who expropriated the seigniorage revenues and not the Ottoman state. Had the Ottoman government been able to provide large volumes of copper coinage earlier in the century, it would have captured the seigniorage revenues accruing to the European mints and merchants.

The seigniorage revenues thus generated provided the hard pressed Ottoman government with sufficient resources to attempt a long-lasting monetary reform. It was exactly during this period, in 1690, in fact, that the Ottoman government embarked on the long road towards establishing a new currency unit, the Ottoman gürush, by beginning to mint large silver coins designed after the European *groschen*. Without the revenues from this mangır episode, such a step would not have been undertaken until later.

³⁰ The cessation of mangır production led to a sharp drop in copper prices and the exportation of large quantities of the surplus copper to France. Sahillioğlu, "Bakır Para Üzerine," 25.

The new Ottoman kuruş

This chapter examines the emergence of a new monetary unit in Istanbul, the Balkans, and Anatolia during the eighteenth century. In contrast to the earlier period when the mints were closed down and the silver akçe ceased to exist as a means of exchange, the eighteenth century until the 1780s was a period of commercial and economic expansion coupled with fiscal stability. These favorable conditions as well as the rising supplies of silver helped establish the kuruş as the leading unit of account and means of exchange by the middle of the eighteenth century. The emergence of the new unit was accompanied by centralization of mint activity in the core regions of the Empire, from the Balkans to Anatolia, as well as Syria and Iraq.

The Ottoman kuruş

The decline of the akçe had posed serious challenges to the Ottoman administration. Without control over the currency, its control over the economy diminished considerably. In addition, in the absence of a currency, the government could not use debasement as a means of obtaining fiscal revenue in times of difficulty. Perhaps most important of all, the disintegration of the monetary system and the increasing reliance on foreign coins had serious political implications. During the second half of the seventeenth century the government had made numerous attempts at establishing a new currency but these had been unsuccessful due to the continuation of wars and fiscal difficulties. After a long interval of inactivity, the mint in Istanbul resumed operations in 1685, producing akçes and paras¹ and later, the copper mangır beginning in 1689.² Supported by the revenues from this experiment the government then renewed efforts to establish a new system around a large silver unit modeled after the European coins circulating in the Ottoman markets since the middle of the sixteenth century.

¹ H. Sahillioğlu, "Bir Asırlık Osmanlı Para Tarihi," 68–72.

² See chapter 9, pp. 155–58.

The first large silver coins were minted in 1690 after the Polish coin *isolette* or *zolota* which was imported in large quantities by Dutch merchants during the seventeenth century.³ These coins were about one third smaller than the Dutch thalers.⁴ Their weight was fixed in standard dirhams and they contained 60 percent silver and 40 percent copper.⁵ The largest of these weighed six dirhams, or approximately 19.2 grams. It appears that this first large coin was intended as a *zolota* or *cedid* (new) *zolota* to distinguish it from the popular Polish coin and not as a *kuruş* or *piaster*.⁶ Later, in 1703, an even larger coin weighing close to eight dirhams, or 25.6 grams and its fractions were also minted. The new monetary scale was clearly established only in the early decades of the eighteenth century. The new Ottoman *kuruş* or *piaster* was then fixed at forty *paras* or 120 *akçes*. The early *kuruşes* weighed six and a quarter dirhams (20.0 grams) and contained close to 60 percent silver. The *zolotas* were valued at three fourths of the *kuruş* or at ninety *akçes*. The fractions of both the *kuruş* and *zolota* were then minted accordingly.⁷ However, many coins with lower silver content were minted until the monetary reform or correction-of-coinage operation of 1715–16 due to wars and continuing political turmoil.⁸ The appearance of substandard coinage attracted large numbers of counterfeiters until the 1720s.

³ Sahillioğlu, “Bir Asırlık Osmanlı Para Tarihi,” 91.

⁴ These coins carried the date of H.1099 (1687–88), the year of accession to the throne of Süleyman II.

⁵ In contrast, until the middle of the seventeenth century, the standards of the *akçes* were fixed in dirhams of Tabriz which was slightly lighter than the standard dirham. See chapter 2 and table 3.1. The standard *akçe* did not include any monetary alloy although substandard *akçes* were minted with some frequency after the debasement of 1585–86. See chapter 8, p. 140.

⁶ Numismatic catalogues suggest that the six-dirham piece minted in 1690 was the first Ottoman *kuruş* and the weight of the Ottoman *kuruş* was revised upwards to eight dirhams in 1703. In contrast, Halil Sahillioğlu has argued that the earlier large coin was intended as a *zolota* and the first Ottoman *kuruş* was minted in 1703. Sahillioğlu, “Bir Asırlık Osmanlı Para Tarihi,” 94–122. The calculations in table 10.1 regarding the silver content of the *kuruş* are based on the latter argument. The early Ottoman *kuruş* was also called the *esedi* (lion) *kuruş* since its standards were close to those of the Dutch thaler. This term which has caused considerable confusion in the literature was soon abandoned.

⁷ The new unit was also called *cedid* (new) *kuruş* to distinguish it from the European *groschen*, most notably the *esedi guruş* or the Dutch thaler which had become a unit of account as well as a medium of exchange for medium and large transactions. Sahillioğlu, “Bir Asırlık Osmanlı Para Tarihi,” 90–107; J. Sultan, *Coins of the Ottoman Empire and the Turkish Republic*, 196–211; A. C. Schaendlinger, *Osmanische Numismatik*, 114–17; N. Pere, *Osmanlılarda Madeni Paralar*, 175–95. The *kuruş* remained the largest silver coin until the reign of Selim III (1789–1807) when its multiples began to be minted.

⁸ Sahillioğlu, “Bir Asırlık Osmanlı Para Tarihi,” 92; and Sultan, *Coins of the Ottoman Empire*, 196–211. The silver content of a small number of coins from this period recently analyzed by Daniel Panzac all contain close to 60 percent silver. D. Panzac, “La Piastre et le Cyclotron: essai sur les Monnaies Ottomanes, 1687–1844,” paper presented to the Conference on Money and Currencies in the Ottoman Empire 1690–1850 (Istanbul, November 1997). See also table 10.1.

By the 1720s a full spectrum of silver coinage had emerged from the kuruş down to the para and the tiny akçe. While the kuruş, zolota, and the twenty-para piece were used for medium and larger transactions, one-, five- and ten-para pieces served as petty coinage.⁹ By this time, the purchasing power of the akçe, valued at one-third of the para, had become too small for most daily purposes.¹⁰ For this reason, the para remained the basic unit of account for small transactions. In addition, some copper coinage was minted in Istanbul and eastern Anatolia but its volumes was limited.¹¹ (See figures 26, 27, 28 and 30).

Economic expansion and fiscal stability

Until the end of the 1860s the eighteenth century was a period of relative peace, stability, and economic expansion for the Ottoman Empire. Available evidence on production is limited, but it does point to an increasing trend for agriculture and artisanal activity as well as investment in manufacturing for many parts of the Balkans and Anatolia.¹² There also occurred a considerable expansion in Ottoman trade with central and western Europe during this period especially through the Mediterranean, and to a lesser extent, across land in the Balkans. French merchants based in Marseilles controlled the maritime trade until the French Revolution.¹³ This was a period of stability for state finances as well. From the 1720s until the end of the 1760s, the trend was toward balanced budgets, and surpluses were enjoyed in many years. The improvement in financial conditions was especially apparent during the extended period of peace in mid-century, from 1747 to 1768.¹⁴

The Ottoman kuruş was relatively stable during this period. In addition to the favorable state finances, the new currency was supported by the rising

⁹ Sultan, *Coins of the Ottoman Empire*, 213–39; Schaendlinger, *Osmanische Numismatik*, 115–19.

¹⁰ The daily wage of an unskilled construction worker in Istanbul was approximately eight paras or twenty-four akçes during the early decades of the eighteenth century. These wage observations were taken from the account books of various pious foundations (*vakıf*) available from the Ottoman state archives as part of a long-term study by this author.

¹¹ Sultan, *Coins of the Ottoman Empire*, 213–91; Schaendlinger, *Osmanische Numismatik*, 112–33.

¹² M. Genç, “XVIII. Yüzyılda Osmanlı Ekonomisi ve Savaşı”, *Yapıt* 4 (1984), 52–61.

¹³ For example, D. Panzac, “International Trade and Domestic Maritime Trade in the Ottoman Empire during the Eighteenth Century,” *International Journal of Middle East Studies* 24 (1992), 189–206; E. Frangakis-Syrett, *The Commerce of Smyrna in the Eighteenth Century (1700–1820)* (Athens: Centre for Asia Minor Studies, 1992); R. Paris, *Histoire du Commerce de Marseille*, Book V: *De 1660 à 1789, Le Levant* (Paris: Librairie Plon, 1957); and P. Masson, *Le Commerce Français dans le Levant au XVIIIe Siècle* (Paris: 1911).

¹⁴ A. Tabakoğlu, *Gerileme Dönemine Girerken Osmanlı Maliyesi* (Istanbul: Dergah Yayınları, 1985), 13–39 and 74–113.

levels of mint output. This trend was in part due to the operation of newsilver mines in Anatolia, in Gümüşhane, Keban and Ergani.¹⁵ The older silver mines in the Balkans, in Sidrekapsi and Kratova continued to contribute as well.¹⁶ As a result, Ottoman silver output fluctuated between twenty-five to forty tons per year during the 1730s. Twenty to thirty-five tons of this amount was channeled to coin production. During the 1740s, the imperial mint in Istanbul issued 1.5 million to 2 million kuruşes every year. Ottoman mint records indicate that coin production increased even further during the 1760s. The output of Ottoman silver mines began to decline, however, towards the end of the century.¹⁷

The revival of Ottoman silver mines was not an isolated development. It was actually part of a broader trend towards higher silver production in Europe during the eighteenth century. Recent studies have shown that the decline of the output of American silver mines after 1670 proved to be an important opportunity for the European silver producers. Just as the massive inflows of Central and South American silver had led to the decline of European and Ottoman silver mines after 1570, the decline in American silver production after 1670 raised the price of that metal and led to a significant increase in European production.¹⁸ The revival of Ottoman silver production during the eighteenth century thus needs to be linked to this general trend. The growing availability of silver in Europe then added to the circulation of silver in the Ottoman lands through the favorable trade balances Ottoman lands maintained in trade with Europe.

Silver thus regained the position of prominence within the Ottoman monetary system. Table 10.1 shows that the silver content of the kuruş declined at a moderate pace, by a total of 40 percent from the 1720s until the end of the 1760s. The exchange rate of the Ottoman currency against the ducat declined at a similar pace, from three kuruşes to four kuruşes during these four decades.¹⁹ This overall rate of debasement is certainly not insignificant. Nonetheless, the stability of the kuruş during this period stands in sharp contrast to both the seventeenth century when the akçe had

¹⁵ For the activities of the Gümüşhane silver mine and the mint, see BOA, C.D. 1789, 721, 2102, 2894, 3170, 947; for Ergani, Keban, and Espiye see C.D. 2649, 2631, 2061, 2894, 1121, 714, 297, 1086, 1450, 3151, and 2054; for the decline in their output towards the end of the century, see C.D. 2015.

¹⁶ For the activities of silver mines in the Balkans, Sidrekapsi, Kratova, and others during the eighteenth century, see BOA, C.D. 1476, 1055, 2069, 735, 887, 2769, 2337, 887, and 2232.

¹⁷ M. Genç, "Precious Metal Production in the Ottoman Empire during the Eighteenth Century," paper presented to the Conference on Money and Currencies in the Ottoman Empire 1690–1850 (Istanbul, November 1997); also see N. Çağatay, "Osmanlı İmparatorluğu'nda Maden Hukuk ve İktisadiyatı Hakkında Vesikalar," *Tarih Vesikalari* 2/10 (1943), 275–83 and 2/12 (1943), 415–23.

¹⁸ I. Blanchard, *Russia's "Age of Silver", Precious-Metal Production and Economic Growth in the Eighteenth Century* (London: Routledge, 1989), 3–57.

¹⁹ For the debasement of the kuruş in the early part of the nineteenth century, see chapter 12.

Table 10.1. *The silver kuruş and its exchange rate, 1690–1808*

Years	Weight in grams	Approximate fineness percent	Pure silver content in grams	Exchange rate of Venetian ducat	Calculated gold:silver ratio
1690	26.0	60	15.6	2 kuruşes 60 akçes	11.0
1696	26.4	60	15.8	2 kuruşes 60 akçes	11.1
1708	26.2	60	15.4	3 kuruşes	13.0
1716	26.5	60	15.9	3 kuruşes 15 akçes	14.0
1720	26.4	60	15.8	3 kuruşes 20 akçes	14.1
1730	24.8	60	14.9	3 kuruşes 25 akçes	13.5
1740	24.1	60	14.5	3 kuruşes 80 akçes	15.0
1754	23.7	60	14.2	3 kuruşes 100 akçes	15.3
1757	19.0	60	11.4	3 kuruşes 105 akçes	12.5
1766	19.2	60	11.5	4 kuruşes	13.0
1774	18.2	60	10.9	4 kuruşes 15 akçes	12.7
1780	18.5	54	10.0	4 kuruşes 70 akçes	12.9
1788	17.4	54	9.4	5 kuruşes 60 akçes	14.6
1789	12.8	54	6.9	5 kuruşes 90 akçes	11.2
1794	12.6	54	5.9	7 kuruşes	11.6
1800	12.6	54	5.9	8 kuruşes	13.3
1808	12.8	46	5.9	8 kuruşes	13.3

Notes

1 Based on one Ottoman kuruş = 40 paras = 120 akçes.

2 Daniel Panzac has recently analyzed the silver content of a sample of eighteenth-century Ottoman coins with the help of spectroscopic methods; see Panzac, "La Piastre et le Cyclotron." Column 3 above incorporates the findings of that study.

3 In view of the quality of the evidence and the imperfections of the minting technology, the estimates regarding the silver content of the kuruş should be accepted as good approximations.

4 For the late seventeenth century, whenever new kuruş coins were not minted, the silver content of the kuruş was calculated from that of other large coins in circulation such as the thirty-para (zolota), sixty-para (two-zolota), two-kuruş pieces.

5 The exchange rates presented here are either market rates at Istanbul or official rates which were applied in many parts of the Empire. The divergence between the two is not great except for the period 1789–92.

6 See table 3.1 for the gold content of the ducat.

7 In view of the quality of the data, the gold:silver ratios calculated here should be taken as approximations. Since the official rates of exchange changed more slowly than the silver content of the kuruş, short term changes in the gold:silver ratio should not be viewed as significant. The gold:silver ratio fluctuated around fifteen in Europe during the eighteenth century. F. Braudel and F. Spooner, "Prices in Europe from 1450 to 1750," in E. E. Rich and C. H. Wilson (eds.), *The Cambridge Economic History of Europe* (Cambridge University Press, 1967), vol. IV, 459. The evidence presented here thus shows that the gold:silver ratios were consistently lower in the Ottoman Empire.

8 For the silver currencies in Cairo and Tunis in the eighteenth century, see tables 11.1 and 11.2.

Sources Sultan, *Coins of the Ottoman Empire*: C. L. Krause and C. Mishler with C. R. Bruce II, *Standard Catalog of World Coins* (Iola, WI: Krause Publications, 1994); D. Panzac, "La piastre et le cyclotron: essai sur les monnaies Ottomanes, 1687–1844," paper presented to the Conference on Money and Currencies in the Ottoman Empire 1690–1850, Istanbul, November 1997. Also Sahillioğlu, "Bir Asırlık Osmanlı Para Tarihi," 68–122 and H. Sahillioğlu "The Role of International Monetary and Metal Movements in Ottoman Monetary History," S. Lachman, "The Standard of the Silver Coinage Sultan III," *The Numismatic Circular* 72 (1969); I. Artuk and C. Artuk, *İstanbul Arkeoloji Müzeleri Teşhirdeki İslami Sikkeler Kataloğu* (Istanbul: Milli Eğitim Basımevı; Schaendlinger, *Osmanische Numismatik*, 63–74; F. Beaujour, *A View of the Commerce of Greece from 1787 to 1797* (trans. from French) (London: H. L. Galabin, 1800), 366–72; and M. Genç, "Osmanlı Maliyesinde Malikane Sistemi," in O. Okyar and H. Ü. Nalbandoğlu (eds.), *Türkiye İktisat Tarihi Semineri, Metinler/Tartışmalar* (Ankara: Hacettepe Üniversitesi Yayınları, 1975).

disappeared from circulation and the early nineteenth century when the silver content of the kuruş declined very rapidly.²⁰

Another important trend in the eighteenth century was the increasing centralization of mint activity in the former akçe region stretching from the Balkans to eastern Anatolia. Continuing a pattern which began in the seventeenth century, the number of active mints in this region remained limited. In the second half of the century, the kuruş and its fractions were minted almost exclusively in Istanbul. The provincial mints struck a limited amount of copper coinage. The kuruş-type large silver coins and the smaller para were not minted anywhere in the Balkans or Syria.²¹ The mint in Bagdad produced coins only in the early part of the nineteenth century during the reign of Mahmud II.²²

Even though economic expansion, fiscal stability, growing availability of

²⁰ One political group strongly in favor of monetary stability were the janissaries in the capital who were paid in kuruş and whose pay were not adjusted upwards after the debasements. The long-standing struggle between the central government and the janissaries and other urban groups over the stability of the currency is examined in chapter 12, pp. 196–200. It would be interesting to explore whether the *ayan* of the provinces influenced the monetary practices of the central government during the eighteenth century. One would expect the *ayan* to be in favor of monetary stability because of their involvement in trade and also because they were net lenders.

²¹ Schaendlinger, *Osmanische Numismatik*, 112–24.

²² Schaendlinger, *Osmanische Numismatik*, 114–35; Sultan, *Coins of the Ottoman Empire*, 196–333. One interesting exception to this trend is the production of war coinage in the southern Caucasus during 1723–35 while the Ottoman government was at war with Persia. These Ottoman coins were struck in captured Persian mints with Persian standards. For details see chapter 6, pp. 103–4 and chapter 6, footnote 54.

silver and rising levels of mint output thus helped the kuruş in areas close to Istanbul, the central government initially struggled to establish the unit and the new coinage in the provinces. The scarcity of coinage continued and the popularity of the European coins persisted in the provinces.²³ In the periodic absence of Ottoman coinage, debased versions of the European coins arrived by shiploads to flood the local markets.²⁴ Scarcity of money also helped bills of exchange play an important role, especially in the trade with Europe. Nonetheless, by mid-century the kuruş emerged as the leading unit of account and the leading means of payment in the Balkans including the Romanian Principalities as well as Anatolia. Prices, government payments and obligations, and more generally, monetary magnitudes began to be expressed in terms of this new unit.²⁵

Syria continued to play the role of a zone of transition between the currencies of Anatolia and Egypt during the eighteenth century as had been the case earlier.²⁶ The akçe had disappeared in Syria with the decline of mint activity in Istanbul and Anatolia after the 1640s. As a result, the para of Egypt had become the leading unit of account for small magnitudes in most of Syria during the seventeenth century.²⁷ For larger magnitudes the Dutch thaler remained the leading unit of account as well as the basic medium of exchange until the early part of the eighteenth century.

Along with the emergence and modest success of the kuruş, the new unit began to establish itself as the basic silver currency and the leading unit of account in many parts of Syria. As the century progressed, the kuruş of Istanbul gained in importance replacing not only the para which was having its own difficulties especially after mid-century, but also some of the European coinage. There existed considerable regional variations within Greater Syria, however. In Aleppo in the north, for example, the kuruş together with its fractions and multiples, soon became the unit of account as well as

²³ For example, European merchants continued to bring in newly minted versions of the Dutch thaler until the second half of the eighteenth century; see C.D. 2028.

²⁴ Frangakis-Syrett, *Commerce of Smyrna*, 78–80, 134–167.

²⁵ For monetary and commercial conditions in the Balkans during the eighteenth century, see N. Todorov, *The Balkan City, 1400–1900* (Seattle, NA: University of Washington Press, 1983), 127–84; N. G. Svoronos, *Le Commerce de Salonique au XVIIIe Siècle* (Paris: Presses Universitaires de France, 1956), 82–83, 114–18; Beajour, *Commerce of Greece*, 366–72; B. Murgescu, “The Romanian Principalities at the Crossroads of the Ottoman and Central European Monetary Systems,” paper presented to the Conference on Money and Currencies in the Ottoman Empire 1690–1850 (Istanbul, November 1997); and J. R. Lampe and M. R. Jackson, *Balkan Economic History, 1550–1950* (Bloomington, IN: Indiana University Press, 1982), 39–47, 55–66, and 81–86. For detailed lists of taxes collected in kuruş and para collected at regional fairs in the Balkans during the eighteenth century, see Ö. Şen, *Osmanlı Panayurları (18.-19. Yüzyıl)* (Istanbul: Eren Yayıncılık, 1996), 17–95.

²⁶ See chapter 6, pp. 99–100.

²⁷ Similarly, with the growth of trade between Crete and Egypt and in the absence of the akçe itself, the para of Egypt became the leading unit of account in Crete late in the seventeenth century. M. Greene, “Commerce and the Ottoman conquest of Kandiyçe,” *New Perspectives on Turkey* 10 (1993), 95–118.

the leading means of exchange.²⁸ Similarly, along the Syrian coast, the Dutch thaler, the Spanish riyal kuruş and the Venetian ducat were the leading currencies in the early part of the century. The kuruş became increasingly prominent both in long-distance trade and domestic transactions after mid-century.²⁹ In Damascus too, the kuruş became the leading unit of account and means of payment in medium and large transactions but the Egyptian para (*misriyya*) survived at least as a unit of account for small magnitudes until the end of the eighteenth century.³⁰

Linkages between the money markets of Anatolia, Syria and Egypt grew stronger during this period. Recently compiled evidence from the court records show that the exchange rates in Damascus between the leading gold and large silver coins of Europe such as the ducat, esedi gurush and riyal gurush closely followed those in Istanbul and Cairo.³¹ One might speculate here that given the reestablishment of the Istanbul based currency in many parts of Syria, especially in the north, as well as the general economic expansion of the eighteenth century, the economic linkages between Anatolia and Syria must have grown stronger during the eighteenth century.

The kuruş was less successful in Iraq. While it gradually emerged as the leading unit of account during the eighteenth century, its availability remained limited until it began to be minted in Bagdad in 1814 (1229 H).³² (See figure 40.) There is, however, evidence of increasing popularity of the kuruş even amongst the tribal population of Iraq during the latter part of the eighteenth century.³³

²⁸ For monetary conditions in northern Syria in the early part of the eighteenth century, see R. Davis, *Aleppo and Devonshire Square, English Traders in the Levant in the Eighteenth Century* (London: Macmillan, 1967), 189–206; for the later period, A. Marcus, *The Middle East on the Eve of Modernity, Aleppo in the Eighteenth Century* (New York, NY: Columbia University Press, 1989), 121–35. For coinage in circulation in Palestine, A. Cohen, *Palestine in the Eighteenth Century* (Jerusalem, 1973), 179–269.

²⁹ I. Adel, *Documents Diplomatiques et Consulaires Relatifs à l'Histoire du Liban* (Beirut: Editions des Oeuvres Politiques et Historiques, 1983), *passim*.

³⁰ C. Establet and J. P. Pascual, "Damascene Probate Inventories of the Seventeenth and Eighteenth centuries: some Preliminary Approaches and Results," *International Journal of Middle East Studies* 24 (1992), 376–83; and *Familles et Fortunes à Damas, 450 Foyers Damasçains en 1700* (Damas: Institut Français de Damas, 1994), 59–112; A. al-Budayri al-Hallaq, *Hawadith Dimasq al-Yawmiyya, 1154–75 A.H. 1741–62*, ed. by Ahmad Izzat Abd al-Karim (Cairo, 1959), 4–105: I am indebted to Professor Abdul-Karim Rafeq for detailed excerpts from this book; B. Marino, "Monnaies d'Or et d'Argent à Damas, 1750–1830," paper presented to the Conference on Money and Currencies in the Ottoman Empire 1690–1850 (Istanbul, November 1997).

³¹ Establet and Pascual, "Damascene," 381–83.

³² For the resumption of the minting of silver coinage in Bagdad see BOA, H.H. 27815/A, B and C, 27826 and 28823; also Schaendlinger, *Osmanische Numismatik*, 135–142. For the different varieties of coinage in circulation in Bagdad in the 1830s and their exchange rates, see H.H. 27815/D and 52490.

³³ H. Fattah, *The Politics of Regional Trade in Iraq, Arabia, and the Gulf, 1745–1900* (Albany, NY: State University of New York Press, 1997), 31–33, 223; also see Abbas al-'Azzawi, *Tarikh al-Nuqad al-Iraqiyya* (Bagdad: Sharikat al-Tijara wa al-Tiba'a, 1958), 149–51.

As for gold coins, the Ottoman *sultani*, or *şerifi* as it was also called, which had remained close to the standards of the Venetian ducat since the fifteenth century was discontinued late in the seventeenth century. In the early part of the eighteenth century, as gold made a comeback in Europe and elsewhere,³⁴ Ottoman minting activity also resumed. In the place of the *sultani*, a number of new gold coins called *tuğralı*, *cedid İstanbul*, *zincirli*, *findik* and *zer-i mahhub* were initiated between 1697 and 1728. All but the last of these started close to the standards of the ducat. Following the practice dating back to the fifteenth century, the government did not attach a fixed face-value to these gold coins. Their exchange rates were determined by the markets. In payments to the state, gold coins were accepted at the official rates of exchange.

Orders were also sent to the mint in Cairo for the production of these gold coins with the same names and standards.³⁵ The gold content of the coins minted in Cairo, however, were consistently lower than their Istanbul counterparts, which increased their circulation in the Istanbul region and led to the disappearance of the gold coins minted in Istanbul. In response, the officials in Istanbul prohibited the minting of lower quality gold coins and reduced the mint charges at Istanbul to attract more gold there. Neither of these measures proved to be effective, however. The problem was eventually resolved by announcing separate and lower official rates of exchange for the Egyptian gold coins which put an end to the traffic.³⁶

In subsequent years, the gold content of coins struck in Istanbul and Cairo fluctuated and declined. The instability of the Ottoman gold coins inevitably reduced their appeal in international payments and for purposes of hoarding. By mid-century, only the *findik* and the smaller *zer-i mahhub* with their fractions and multiples and their Egyptian counterparts remained in circulation. These two types of coins continued to be minted until early in the nineteenth century. *Findik* of Istanbul exchanged at a discount against the ducat and close to par against the Hungarian gold coin (*ongari*) for most of the century. (See table 10.2.) *Sultanis* and later *zer-i mahbubs* minted in Tunis and *sultanis* minted in Algeria were also used in trade across the Mediterranean, especially around the eastern Mediterranean and in Egypt.³⁷

³⁴ F. C. Spooner, *The International Economy and Monetary Movements in France* (Cambridge, MA: Harvard University Press, 1972), 42–53.

³⁵ Sahillioğlu, “Bir Asırlık Osmanlı Para Tarihi”, 94–122; Pere, *Osmanlılarda*; Artuk and Artuk, *İstanbul Arkeoloji*; Krause and Mishler with Bruce, *Standard Catalog of World Coins*; for the Egyptian gold coins, see A. Raymond, *Artisans et Commerçants au Caire au XVIIIe Siècle* (Damascus: Institut Français de Damas, 1973–74), vol. 1, 29–31; and T. Walz, “Gold and Silver Exchanges between Egypt and Sudan, Sixteenth-Eighteenth centuries,” in J. F. Richards (ed.), *Precious Metals in the Later Medieval and Early Modern Worlds* (Durham, NC: Carolina Academic Press, 1983), 305–28.

³⁶ Sahillioğlu, “Bir Asırlık Osmanlı Para Tarihi”, 112–14.

³⁷ Panzac, “L’Economie-Monde Ottomane,” 368–78.

Table 10.2. *The exchange rates of other coins and currency expressed in kuruş, 1720–1810*

Years	<i>Fındık</i> (gold)	<i>Zer-i mahbub</i> Istanbul (gold)	Hungarian (gold)	Pounds Sterling
1720	—	—	3 kuruşes	
1736	3 kuruşes 40 akçes	2 kuruşes 90 akçes	3 kuruşes 20 akçes	5–7 kuruşes
1758	3 kuruşes 105 akçes	2 kuruşes 90 akçes	3 kuruşes 80 akçes	
1768	4 kuruşes	3 kuruşes	3 kuruşes 50 akçes	8 kuruşes
1774	4 kuruşes	3 kuruşes	3 kuruşes 50 akçes	9–10 kuruşes
1780	4 kuruşes		4 kuruşes	
1788	5 kuruşes	3 kuruşes 60 akçes	5 kuruşes	11 kuruşes
1798	7 kuruşes	5 kuruşes	7 kuruşes	15 kuruşes
1805	8 kuruşes	5 kuruşes 60 akçes	8 kuruşes	15–17 kuruşes
1810	9 kuruşes	6 kuruşes 60 akçes	9 kuruşes 75 akçes	19 kuruşes 90 akçes

Notes

1 The exchange rates presented here include both the official and market rates. Market rates are given mostly for Istanbul. The rates for gold coins are mostly official rates. The rates for the British pound sterling are all market rates.

2 The *fındık* weighed close to 3.5 grams and the *zer-i mahbub* weighed more than 2.6 grams. The gold content of these coins declined over time as exchange rates presented here confirm.

3 The *fındık*, *zer-i mahbub* and other gold coins of Egypt contained less gold and exchanged at a discount against their Istanbul counterparts. For example, in 1731 the official rate at Istanbul for *tuğralı* of Istanbul was three kuruş and for *zincirli* of Istanbul three kuruş forty akçe. During the same year, the official rates at Istanbul for *tuğralı* of Egypt was two kuruş seventy-five akçes and for *zincirli* of Egypt two kuruş ninety akçes indicating that the values of the Egyptian coins were 15–20 percent lower.

4 The Hungarian gold coin weighed 3.47 grams.

5 The first exchange rate for pounds sterling presented above is for 1740. During most of the eighteenth century, the British pound was linked primarily to gold.

Sources M. Belin, *Türkiye İktisadi Tarihi Hakkında Tetkikler* (trans. from French by M. Ziya) (Istanbul: Devlet Mabaası, 1931); B. S. Baykal, "Osmanlı İmparatorluğu'nda XVII. ve XVIII. Yüzyıllar Boyunca Para Düzeni ile İlgili Belgeler," *Türk Tarih Kurumu, Belgeler* 7–8 (1967); Pere, *Osmanlılarda Madeni Paralar*; N. V. Michoff, *Contribution à l'Histoire du Commerce de la Turquie et de la Bulgarie* (Sofia, 1971), vol. VI; Artuk and Artuk, *İslami Sikkeler Kataloğu*; C. Issawi, *The Economic History of Turkey, 1800–1914* (Chicago, IL: The University of Chicago Press, 1980), 327–31.

Ottoman gold coins did not gain the prominence of the silver kuruş, however, and more generally, gold remained secondary to silver during most of the eighteenth century.³⁸ (See figure 34.)

The rise of the kuruş diminished the role of European currencies especially in regions close to Istanbul. The European silver units such as the Dutch thaler, Spanish eight-real piece and their German and Austrian counterparts continued to be used in international trade and domestic payments, but not as widely as in the seventeenth century. The exchange rates of these coins continued to be determined by the markets although during extraordinary periods the government attempted to control all monetary rates. The Venetian ducat reasserted itself in the eighteenth century as a leading coin in international payments around the eastern Mediterranean. Gold coins including the Venetian ducat were used for large transactions and for store-of-value purposes but played a limited role in daily transactions.³⁹

With the growth of European trade, the Ottoman economy began to be incorporated, increasingly from the 1760s, into the European network of multilateral payments. Bills of exchange had been used as a means of payment in trade between the Ottoman Empire and Europe in the seventeenth century.⁴⁰ Their volume increased substantially in the second half of the eighteenth century. In addition, *suftajas* and *hawales* continued to be used in payments flows within the Empire, especially in the transfer of tax revenues from the provinces to the capital city.⁴¹

Istanbul developed into an international exchange center during the last quarter of the century, joining the multilateral payments networks involving the leading European centers of commerce, London, Amsterdam, Trieste, Livorno, Venice, Vienna, and others. A busy market in bills of exchange and foreign exchange flourished in the capital city where all of the leading

³⁸ See also C. Carrière, "Réflexions sur le Problème des Monnaies et des Métaux Précieux en Méditerranée Orientale au XVIIIe Siècle," in *Cahiers de la Méditerranée, Commerce de Gros, Commerce de Détail dans les Pays Méditerranéens, XVIIe–XIXe Siècle* (Nice, University of Nice, 1976).

³⁹ L. Berov, "Wages in the Balkans during the period of Manufacturing Capitalism and the Industrial Revolution," *Bulgarian Historical Review* 1 (1979), 106–10; Frangakis-Syrett, *Commerce of Smyrna*, 78–107 and 134–169; Estabiet and Pascual, "Damascene," 373–93.

⁴⁰ J. Sperling, "The International Payments Mechanism in the Seventeenth and Eighteenth Centuries," *The Economic History Review* 14 (1962), 460–63.

⁴¹ On the use of bills of exchange between İzmir and the European ports, see E. Frangakis, "The Balance of Trade and the Balance of Payments between Izmir and France, 1700–1789," *Comité National Grec des Etudes du Sud-Est Européen, Communications Grecques Présentées au Ve Congrès International des Etudes du Sud-Est Européen* (Athens, 1985), 133–38; between Cairo and Damascus, see Raymond, *Artisans et Commerçants*, vol. I, 301; for the use of bills of exchange between Tunis and western Anatolia during the second half of the eighteenth century, see S. Boubaker, "Le Transfert des Capitaux entre l'Empire Ottoman et l'Europe: Utilisation de la Lettre de Change à Smyrne (1760–1772)," *Revue d'Histoire Maghrébine* 21/75–76 (1994), 199–218. For the use of *suftajas* and *hawales* in Ottoman trade and payments during the earlier period, see chapter 5, p. 84.

European currencies were quoted on a daily basis.⁴² By the end of the century, payments for a great portion of the trade between Marseilles and Istanbul had shifted to bills of exchange. One important reason for the integration of Istanbul into these circuits was its pattern of trade. The capital city imported much more than it exported and European merchants had difficulties in finding exportable goods in Istanbul to balance their trade. For this reason, they found it useful to join the payments networks between the capital city and the provinces. The tax revenues of the provinces being sent to the capital city by the tax collectors were thus exchanged with the funds European merchants wanted to send from Istanbul to their associates in the provinces so that the latter could pay for the goods they wanted to purchase and ship to Europe.⁴³ (See figures 37 and 38.)

Fiscal troubles and depreciation of the kuruş

From the 1760s until the end of the century, Ottoman state finances and money were jolted by two exhausting wars, from 1768 to 1774 and from 1787 to 1792, the first with Russia and the second with Russia and the Habsburgs. Although the first of these wars created financial difficulties, a major debasement was avoided by relying on the reserves accumulated in the earlier era of peace. After the defeat, a relatively small war indemnity of 7.5 million akçes or 62,500 kuruşes was also paid over a three year period.⁴⁴ Available evidence indicates that during the reign of Abdulhamid I (1774–89), the weight of the kuruş declined and the alloy content of coins rose as a result of these financial difficulties. Nonetheless, the exchange rate of the kuruş against the ducat remained basically unchanged at four kuruş and fifteen akçes from the mid 1770s until 1789. (See table 10.1.)

The Ottoman currency received a major blow during the war of 1787–92 against Russia and Austria. State finances were already in crisis when Selim III came to power during the second year of the war. The fiscal difficulties generated by the war were compounded by pressure from Sweden for the payment of a subsidy due to them for the continuation of their hostilities against Russia. The distribution of the accession largesse to the janissaries could not be undertaken and their salaries were delayed for several months.

⁴² It is thus possible to obtain detailed time series for the exchange rates of the Ottoman currency against the leading European currencies from European financial sources as well as the Ottoman sources beginning late in the eighteenth century.

⁴³ E. Eldem, "Structure et Acteurs du Commerce International d'Istanbul au XVIIIe Siècle", D. Panzac (ed.), *Les Villes dans l'Empire Ottoman: Activité et Sociétés* (Marseilles: Editions du CNRS, 1990), 243–72; and E. Eldem, "La Circulation de la Lettre de Change entre la France et Constantinople au XVIIIe Siècle," in H. Batu et J. L. Bacque-Grammont (eds.), *L'Empire Ottoman, la République de Turquie et la France* (Istanbul: ISIS Press, 1986), 261–63.

⁴⁴ S. J. Shaw, *History of the Ottoman Empire and Modern Turkey*, vol. I: 1280–1808 (Cambridge University Press, 1976), 250.

A major debasement was thus undertaken in 1789 which reduced the silver content of the kuruş by one third. (See table 10.1.)

To keep prices from rising both as a result of this operation and in the face of wartime shortages, the government tried to enforce a system of price ceilings (*narh*) for most goods in urban areas, especially in the capital city. These price ceilings were then extended to the exchange rates of other coins, both gold and foreign, against the silver piaster. These interventions represented probably the most severe application of *narh* in both the commodity and money markets in the eighteenth century. The difference between ceiling prices and market rates was wider during this war than at any other time in the eighteenth century. The government also demanded that gold and silver in private hands be turned over to the state at below market prices.⁴⁵

There is no doubt that this was the most comprehensive and ambitious package of intervention in the money and commodity markets that occurred during the eighteenth century. The evidence suggests, however, that the government was not successful in achieving its ends. Even though mint records are not available, it appears that the government could not induce significant flows of silver to the mints until it raised the mint price of silver. Moreover, price ceilings on foodstuffs only exacerbated the shortages in urban areas, especially in the capital. Merchants in the provinces simply refused to send goods to the capital. With the end of the war, however, the monetary instability subsided and the kuruş maintained both its silver content and its exchange rate against the ducat until the deposition of the reformist sultan Selim III in 1807.⁴⁶

⁴⁵ S. J. Shaw, *Between Old and New, the Ottoman Empire under Sultan Selim III, 1789–1807*, (Cambridge, MA: Harvard University Press, 1971), 175–79, and n. 43. The government paid one piaster for four dirhams (12.8 grams) of silver while the new piaster contained only 5.95 grams of pure silver. See BOA, C.D. 859 dated 1790 (1204 H). For various government attempts to bring in more silver and gold to the Istanbul mint during this crisis, see H.H. 955/d, C.D. 843, 104, 572, 859 and D.BŞM.DRB 16652/48.

⁴⁶ Shaw, *Between Old and New*.

Linkages with the periphery

The previous chapter examined the emergence of the Ottoman kuruş during the eighteenth century. In contrast to the seventeenth century when the mints had closed down and the akçe had ceased to exist as a means of exchange, economic expansion, fiscal stability, and other favorable developments helped establish the kuruş as the leading unit of account as well as the leading means of exchange in the Balkans and Anatolia. This chapter examines the growth of monetary linkages between Istanbul and the provinces during the eighteenth century. Also in contrast to the earlier period when the ties between Istanbul and the currencies in different parts of the Empire, Egypt, Tripoli, Tunis, and Algiers, had weakened substantially if not dissolved altogether, these ties recovered and even strengthened during the eighteenth century. The following survey, based on numismatic and other sources, examines this important trend for the first time. The new evidence from monetary history presented in these two chapters thus indicates that the linkages between the center and the periphery of the Empire were stronger during the eighteenth century than it has been assumed until now.

The para in Egypt

The historiography on Egypt has long emphasized that the province gained considerable autonomy from the central government during the eighteenth century.¹ However, recent research has shown that Istanbul continued to exert a good deal of control and that political and administrative ties to the capital were considerable.² Our examination of the monetary linkages between Istanbul and Cairo during this period has revealed a good deal of evidence supporting the latter thesis.

Despite the minting of large silver coins and the creation of a new

¹ For example, P. M. Holt, *Egypt and the Fertile Crescent, 1516–1922: a Political History* (Ithaca, NY and London: Cornell University Press, 1966).

² J. Hathaway, *The Politics of Households in Ottoman Egypt, the Rise of the Qazdağlıs* (Cambridge University Press, 1997).

monetary unit in Istanbul, the small para continued as the basic silver coin and the leading unit of account in Egypt until late in the eighteenth century. Even though the government in Istanbul demanded the minting of larger silver coins in Egypt, local authorities resisted this request. In addition to written orders, officials from Istanbul were periodically sent to Cairo to inspect the mint and to ensure that the standards established for the para of Cairo were followed.³

One issue of almost permanent concern for Istanbul was the lower standards or lower silver content of the para of Egypt vis-à-vis the para and kuruş of Istanbul.⁴ Since the exchange rate between the two units remained fixed, the divergence in the respective silver contents led to an outflow of silver from the Istanbul region to Egypt. Another reason for the concern of the central government was the annual remittances sent from Cairo to Istanbul. The annual remittance from Cairo to Istanbul had been fixed at 500 thousand gold sultanis per annum, a large sum in the sixteenth century in terms of both the budgetary receipts at Istanbul and Cairo and also in terms of interregional payment flows within the Empire. The amounts reaching Istanbul were far below that amount, however, and the actual payments were often made in paras of Cairo. During the first half of the eighteenth century these fluctuated between eight and thirty million paras, averaging eighteen million paras or 135 thousand gold pieces per year.⁵ In addition, in the eighteenth century the annual remittances sent on account of the sultan from Egypt to the Holy Cities rose from about half a million paras to ten million paras.⁶ The decline in the standards of the para thus meant lower actual receipts for the treasury in Istanbul.

Despite Istanbul's efforts, however, the difference between the silver content of the coins minted at Istanbul and Cairo persisted. Even though this gap occasionally reached 20 or even 30 percent, the para of Cairo remained linked to the kuruş and the para of Istanbul on a long-term basis.⁷

³ For examples of the various orders sent by the central government to the mint in Cairo, see BOA, C.D. 2703, 275, 414, 2287, 2757, 822, 1116, 1066, 1146, 2802, 1967 and H.H. 27734. An order dated 1768 specifically attempts to prohibit the new government of Ali Bey from interfering in the affairs of the mint in Cairo, BOA, C.D. 1968.

⁴ H. Sahillioğlu, "Bir Asırlık Osmanlı Para Tarihi," 98–117.

⁵ A. Tabakoğlu, *Gerileme Dönemine Girenken Osmanlı Maliyesi* (Istanbul: Dergah Yayınları, 1985), 61–63.

⁶ Tabakoğlu, *Gerileme Dönemine Girenken*, 59–63, provides a detailed list of net annual inflows to the treasury from Cairo for the first half of the century; also S. J. Shaw, *The Financial and Administrative Development of Ottoman Egypt, 1517–1798* (Princeton, NJ: Princeton University Press, 1962), 283–312.

⁷ Since one kuruş equalled forty paras, identical standards between Istanbul and Cairo would have meant that the silver content of the para of Cairo would equal one-fortieth of that of the kuruş of Istanbul. For example, Hatibzade Ahmet Aga sent from Istanbul in 1762 fixed the weight of 1,000 para at 125 dirhams of 58 percent fine silver. This meant that one para of Cairo contained 0.23 grams of silver. S. Bernard, *Description d'Égypte*, vol. XVI: *Les Monnaies d'Égypte*, second edition (Paris, 1825), 47–48, cited in S. Lachman, "The Coins Struck by Ali Bey in Egypt," *The Numismatic Circular* 83 (1975), 200. Around the same

As the latter lost about 40 percent of their silver content from the 1720s to the 1760s, the Egyptian unit followed them downwards. The exchange rates of the two units against the benchmark ducat also show that the two remained well linked.⁸ This linkage was severed in the 1760s, however, as the economic and fiscal crises in Egypt led to a sharp decline in the silver content of the para to about half of that of corresponding coins minted at Istanbul.⁹ (See table 11.1.)

The large silver kuruş together with its multiples and fractions finally began to be minted in Cairo in 1769–70 during the rule of Ali Bey. This practice was continued until the end of the century by his successors.¹⁰ The first kuruş of Cairo weighed about about 15 grams and its fineness varied between 31 and 48 percent. It thus contained 40 to 60 percent less silver than the contemporary kuruş of Istanbul.¹¹ On the eve of the occupation of Egypt by Napoleon in 1798, the silver content of the kuruş of Cairo was still comparable to but lower than the kuruşes being minted at Istanbul. The gap between the two units had closed because of the major debasement in Istanbul in 1789.

The gold coinage of Cairo also remained linked to those issued in Istanbul during the eighteenth century. Following the lead of Istanbul, a series of new gold coins were minted in Egypt beginning in the last decade of the seventeenth century. The *Istanbul* or *tuğralı* began to be minted in 1696–97 as the replacement for the *şerifi* which had been issued since the early part of the sixteenth century. The *zincirli* replaced it in 1707. The last addition to the list was the *findıklı* which began to be minted in 1725.¹² In the second half of the century, the most frequently used gold piece in Egypt was the *zer-i mahbub* as was the case in Istanbul. However, the *findık*, *zer-i mahbub*, and other gold coins of Egypt contained less gold and exchanged at a discount against their Istanbul counterparts. For example, in 1731 the official rate at Istanbul for the *tuğralı* of Istanbul was three kuruş and for the *zincirli* of Istanbul three kuruşes and forty akçes. During the same year,

time, one Istanbul kuruş weighed six dirhams and contained about 60 percent pure silver. One fortieth of this piece contained 2.7 grams of pure silver.

⁸ A. Raymond, *Artisans et Commerçants au Caire au XVIIIe Siècle*, 2 vols. (Damascus: Institut Français de Damas, 1973–74), vol. 1, 34–36.

⁹ Raymond, *ibid.*, 17–52. In contrast, the para of Cairo had been more stable than the akçe in the seventeenth century.

¹⁰ Twice during the eighteenth century, Ottoman control of Egypt was threatened and on both occasions small changes made to the coin designs reflected the new circumstances. In 1769 Ali Bey, the governor of Egypt revolted and declared Egypt to be independent but he was defeated three years later. During his rebellion, coins were issued in the name of the Ottoman sultan Mustafa III (1757–74) but with Ali added. Similarly, during the French invasion of Egypt, coins with an Arabic B for Bonaparte were issued. Lachman, “The Coins,” 198–201.

¹¹ Raymond, *Artisans et Commerçants*, 33–34; Lachman, “The Coins,” 198–201; Krause and Mishler, *Standard Catalog*. See also table 11.1 above.

¹² Raymond, *Artisans et Commerçants*, 29–31; see also chapter 6, pp. 98–99 above.

Table 11.1. *The silver content and the exchange rate of the para of Egypt, 1690–1798*

Years	Average weight of coins grams	Approximate fineness percent	Silver content grams	Silver content para/akçe	Exchange rate against Venetian ducat	Exchange rate against akçe based on rates versus Venetian ducat
1690	0.54	70	0.41	3.1	105	2.9
1698	0.69	60	0.41	3.1	120	2.5
1705	0.63	60	0.38	2.8	130	2.6
1720	0.63	60	0.38	2.9	120	3.2
1735	0.57	60	0.34	2.7	145	2.7
1740	0.57	60	0.34	2.8	160	2.8
1760	0.35	50	0.18	1.9	168	2.8
1788	0.35	50	0.18	2.3	225	2.9
1789	0.31	44	0.14	2.4	235	2.9
1798	0.22	35	0.08	1.6	360	2.6

Notes

1 The silver content of the para refers to the legal standard. The coins in circulation often had both lower weight and lower fineness. The gap between the legal standards and the silver content of the actual coins varied between 20 and 30 percent.

2 Column 4 gives the ratio between the silver content of the para and that of the akçe. Data for the silver content of the akçe is taken from table 10.1.

3 Column 6 is calculated by dividing the exchange rate of the akçe of Istanbul against the ducat by the exchange rate of the para against the ducat. The exchange rates of the akçe against the ducat are taken from table 10.1.

4 Data on the silver content of the para during the early part of the nineteenth century is not available. However, the speed with which the exchange rate of the para declined against the Austrian thaler and other currencies in Cairo suggests that the silver content of the para followed the deteriorating kuruş of Istanbul downwards at approximately the same pace until the monetary reform of Muhammed Ali in 1834 which adopted the bimetallic standard for the Egyptian currency and severed the monetary links between Cairo and Istanbul.

Other Sources

Raymond, *Artisans and Commercants*, vol. 1, 34–52; C. L. Krause and C. Mishler with C. R. Bruce II, *Standard Catalog of World Coins*, twenty-first edition (Iola, WI: Krause Publications, 1994); and K. Cuno, *The Pasha's Peasants, Land, Society and Economy in Lower Egypt, 1740–1858* (Cambridge University Press, 1992), Appendix A.

the official rates at Istanbul for the *tuğralı* of Egypt was two kuruş and seventy-five akçes and for the *zincirli* of Egypt two kuruş and ninety akçes indicating that the value of the Egyptian coins were 15–20 percent lower. (See table 10.2.) More generally, the absence of a large domestic silver coin in Egypt until late in the century created additional demand for and put pressure on the domestic and European gold coins as the medium of circulation, especially for larger transactions.¹³ (See figure 35.)

The government in Egypt encouraged the trade and inflows of gold from the south across the Sahara. These gold flows, which were closely related to the arrival of Muslim pilgrims from sub-Saharan Africa, continued in the early part of the eighteenth century but apparently declined after the 1730s. It is also estimated that by this period their volume was not large in comparison to the mint activity in Cairo.¹⁴ Nonetheless, because of the inflows from the south and possibly other reasons, Egypt generally experienced a relative abundance of gold but shortages of silver in relation to the Istanbul region. In the bilateral payment flows between Egypt and the Istanbul region, gold usually flowed from Egypt to Istanbul and silver moved in the opposite direction.¹⁵

In contrast to Istanbul where copper coinage remained exceptional in the eighteenth century, varieties of copper coins called both *fels* and *jedid* were minted in Egypt. Most of these coins weighed about half or two fifths of a dirham (1.2 to 1.6 grams). Their nominal values varied from eight to eighteen *jadid* for one para. Copper coinage was discontinued towards the end of the century, however, after debasements and inflation diminished the usefulness of the fractions of the para.¹⁶

Of the European coins in Egypt, the Dutch lion thaler (*esedi guruş*) and the Spanish eight-real piece (*riyal guruş*) declined in importance during the first half of the eighteenth century as was the case elsewhere in the eastern Mediterranean. They were replaced by the Venetian ducat called *bunduqi* or naturalized as *şerifi bunduqi* which made a comeback in the eighteenth century, as well as by the Hungarian gold piece (*şerifi macar*), the German thaler and the Austrian Marie Theresa thaler which was especially popular in Yemen and the Arabian peninsula.¹⁷

¹³ For example, because of the debasement of the para and the absence of a large silver coin, an imaginary unit of account called *riyal*, equal to ninety paras, was widely used in the last quarter of the eighteenth century. Raymond, *Artisans et Commercants*, 39–40; and Cuno, *Pasha's Peasants*, 211.

¹⁴ T. Walz, "Gold and Silver Exchanges between Egypt and Sudan, Sixteenth–Eighteenth centuries," in J. F. Richards (ed.), *Precious Metals in the Later Medieval and Early Modern Worlds* (Durham, NC: Carolina Academic Press, 1983), 311–25.

¹⁵ Sahillioğlu, "Bir Asırlık Osmanlı Para Tarihi," 112–14.

¹⁶ S. Lachman, "The Eighteenth Century Egyptian Copper Coinage," *The Numismatic Circular* 86 (1978), 238–39; Raymond, *Artisans et Commercants*, 20–25.

¹⁷ *Ibid.*; the Austrian thalers continued to be reissued and exported to the Arabian peninsula and other destinations in the Near East until the middle of the twentieth century. M. R. Broome, "The 1780 Restrike Thalers of Maria Theresa," *The Numismatic Chronicle*, *Seventh*

The early decades of the nineteenth century, from the occupation of Egypt by Napoleon in 1798 until the monetary reforms of Muhammed Ali in 1834, was a turbulent period for the currency in Egypt. In the absence of detailed information about the silver content of the Egyptian coinage during this interval, the debasement and depreciation of the Egyptian para can be followed from its exchange rates. Against the Austrian (Maria Theresa) thaler, a stable silver coin, the para lost more than 80 percent of its value between 1798 and 1834 declining from 150 paras per thaler to 800. This is a little less than but quite close to the total decline of the kuruş of Istanbul during the same period. In addition, the timing of the overall decline was remarkably similar to that in Istanbul.¹⁸ In other words, despite the considerable political tensions and even military confrontation between the two governments, the para and kuruş of Cairo followed the Istanbul unit downwards.¹⁹ In gold, the administration of Muhammed Ali continued to mint the *zer-i mahbub* of the eighteenth century but these were of limited significance.

It is interesting that even during the 1820s and 1830s when the reformist governor Muhammad Ali successfully fought and defeated the Ottoman armies, he chose to keep the two currencies linked. The strength of commercial linkages between the two regions must have played an important role in the persistence of the monetary linkage.²⁰ It is also likely that in the rapid depreciation of the kuruş in Istanbul, Muhammed Ali saw an opportunity for his own government to generate additional fiscal revenue and thus went along with the debasements.²¹ The government in Cairo certainly benefited from paying its obligations and purchases in debased currency.

Since Muhammed Ali was a number of steps ahead of Istanbul in the reform process, he was also the first to invite European monetary specialists. Following their advice if not pressure, Egypt adopted the bimetallic standard in 1834, ten years ahead of the Ottomans in Istanbul.²² The gold and silver standards adopted for Egyptian coinage were retained during the

Series 12 (1972), 221–45; also C. Carrière, “Réflexions sur le Problème des Monnaies et des Metaux Précieux en Méditerranée Orientale au XVIIIe Siècle,” in *Cahiers de la Méditerranée, Commerce de Gros, Commerce de Détail dans les Pays Méditerranéens, XVIe–XIXe Siècle* (Nice: University of Nice, 1976).

¹⁸ Cuno, *Pasha's Peasants*, 212.

¹⁹ For the rapid decline in the silver content of the para of Egypt during the early part of the nineteenth century, see *ibid.*, appendix 2, 211–15. Warnings from Istanbul regarding the standards of coinage in Cairo continued during these decades; see H.H. 27647 and 27734.

²⁰ From the numismatic catalogues and collections available in Egypt, it is clear that Istanbul coinage circulated widely in Egypt during this period. F. Sultan, *Le Monnaie Egyptienne* (Paris: Librairie Nouvelle de Droit et de Jurisprudence, 1914), 34–45.

²¹ For a detailed examination of Muhammed Ali's policies of taxation and extraction of the agricultural surplus from the peasant producers, see Cuno, *Pasha's Peasants*, 121–46.

²² G. Alleaume, “La Politique Monétaire de Muhammed Ali: Nouvelles Données, Nouvelles Hypothèses,” paper presented to the Conference on Money and Currencies in the Ottoman Empire 1690–1850 (Istanbul: November 1997).

rest of the century. All coins minted in Egypt continued to bear the names of the Ottoman sultans until World War I.²³ Having abandoned debasements as a means of raising fiscal revenue, the Egyptian government began borrowing in the European financial markets in the 1860s for its budgetary and investment needs.²⁴

The riyal of Tunis

Following two decades of civil war, Huseyn b. Ali, a leader of the Turkish janissaries who had settled in Tunisia, obtained from the Ottoman sultan the title *beylerbeyi-pasha* and established a new hereditary dynasty in 1705 which was to rule the regency for more than two centuries. After an attempt to reestablish its authority failed in 1715, the Ottoman government contented itself with demonstrations of submission from this distant province without contesting the autonomy its rulers enjoyed. While Egypt was expected to send an annual remittance to Istanbul, the same did not apply to the Maghrib, Tripoli, Tunis, and Algiers. Aside from occasional gifts to the sultan and the influential in the capital, regular payments to the state treasury were not expected from these provinces.²⁵

For the economy of Tunisia the most important developments during the eighteenth century were the growth in trade with Europe based on the exportation of agricultural products and the decline in corsairing under pressure from the European powers. Since Tunis did not possess mines, external trade balances determined the changes in its specie stocks. Volume of mint activity increased during periods of trade surpluses and declined with trade deficits as the specie stock declined. The Mediterranean trade was the most important but the regency also had access, to a lesser extent than Algiers, to sub-Saharan gold through trade with that region.²⁶

Tunis had experienced a good deal of monetary instability during the seventeenth century as was the case in many parts of the Mediterranean. The small, square shaped *nasri* and the larger *harruba* which began to be

²³ The new standard for the Egyptian pound was 8.54 grams of .875 fine gold which equaled 100 silver kuruş. The pound also contained 140 grams of .833 percent fine silver. The gold-silver ratio was thus fixed at 15.87. Sultan, *Monnaie Egyptienne*, 34–45; Krause and Mishler, *Standard Catalog*.

²⁴ The road to the Egyptian default of 1875 is examined in D. Landes, *Bankers and Pashas: International Finance and Economic Imperialism in Egypt* (Cambridge, MA: Harvard University Press, 1958); R. Owen, *The Middle East in the World Economy, 1800–1914* (London: Methuen, 1981), 122–35.

²⁵ J. M. Abun-Nasr, *A History of the Maghrib in the Islamic Period* (Cambridge University Press, 1987), 285–91.

²⁶ Judging from the volume of gold issues, access to sub-Saharan gold was limited in Tunis during the eighteenth century. Mint activity was mostly in silver, billion and copper coinage. A. Fenina, “Les Monnaies de la Régence de Tunis sous les Husaynides, Etudes de Numismatiques et d’Histoire Monétaire (1705–1891),” Thèse de Doctorat, Université de Paris-Sorbonne (1993).

minted towards the end of the century could not meet the economy's demand for a stable medium of exchange. Attempts at monetary reform began in the early part of the eighteenth century after the devaluation of 1703. The reform-of-coinage operation by Hussayn Ben Ali in 1714 severed the official 1:1 link between the debased local currency and the Spanish real, prohibited the use of the latter in domestic transactions and established a new unit called the *riyal*.²⁷ During the same year, the Tunis mint began to issue larger silver coins with the denomination of one-quarter *riyal*. Other fractions were minted later and the one-*riyal* coin arrived in 1766.²⁸

With these large silver coins, the mint at Tunis reestablished the monetary links to Istanbul that were severed in the seventeenth century. The design of the Tunisian *riyal* coinage including the inscriptions "Sultan of the two lands and Lord of the two seas, the Sultan son of the Sultan" and "may his victory be glorious" were identical to those used in the large *kuruş* coinage minted at Istanbul beginning with Mustafa II (1695–1703) and Ahmed III (1703–30). These designs including the *tughra* of the sultan may have been sent from Istanbul. The Tunisian mint continued with the same design until the early part of the nineteenth century even though Istanbul adopted a variety of other coinage types later in the eighteenth century.²⁹

While the appearance of the *riyal* coinage was closely related if not identical to the Istanbul *kuruş*, their silver content followed an independent course at least in the short and medium term. The *riyal* experienced a sharp debasement and depreciation in the early part of the century, especially during the first decade after it was issued. Between 1725 and the 1760s, it lost about 60 percent of its initial silver content while the *kuruş* of Istanbul was more stable, losing less than 30 percent of its silver content. When the first full *riyal* or *piaster* coin of Tunis was minted during the reign of Mustafa III (1757–74), it weighed 15.2 grams and contained 39 percent fine silver or 5.9 grams of pure silver. At that time the *kuruş* in Istanbul contained approximately 12.9 grams of pure silver. The *riyal* remained little changed during the half century until the 1810s and then experienced another round of rapid depreciation. It lost about one third of its silver content from 1810 to 1830 and by 1830 its silver content stood at 22 percent of its level in 1725. Interestingly, despite the absence of a formal linkage, the

²⁷ An important reason for this delinking was the growing scarcity of the Spanish real around the Mediterranean. S. Boubaker, "Le Transfer des Capitaux entre l'Empire Ottoman et l'Europe: Utilisation de la Lettre de Change à Smyrne (1760–1772)," *Revue d'Histoire Maghrébine* 21/75–76 (1994), 57–58.

²⁸ Fenina, "Les Monnaies," 275–94; P. Sebag, "Les Monnaies Tunisiennes au XVII^e Siècle," *Revue des Etudes du Monde Musulman en Méditerranée*, No. 55–56, *Villes au Levant, Homages à André Raymond* (1990), 257–65; J. Farrugia de Candia, "Monnaies Husseinites, 1705 à 1782," *Revue Tunisienne* 21 (1935), 15–36.

²⁹ Fenina, "Les Monnaies," 275–425; J. Sultan, *Coins of the Ottoman Empire and the Turkish Republic, a detailed Catalogue of the Jem Sultan Collection* (Thousand Oaks, CA: B and R Publishers, 1977), vol. 1, 213–333.

Table 11.2. *The silver content of the riyal of Tunis, 1725–1881*

Year	Weight in grams	Fineness in percent	Pure silver content in grams	Index: 1725 = 100
1725	22.2	65	14.4	100
1735	21.2	44	9.3	65
1766	14.8	39	5.8	40
1789	15.2	34	5.2	36
1808	15.0	34	5.1	35
1813	15.3	30	4.6	32
1825	11.5	28.6	3.3	23
1847	3.15	83.5	2.6	18
1881	3.15	83.5	2.6	18

Sources

Fenina, "Les Monnaies"; Krause and Mishler, *Standard Catalog*; and L. Valensi, *Tunisian Peasants in the Eighteenth and Nineteenth Centuries* (Cambridge University Press, 1985), 215–18.

overall rate of debasement at Tunis for the century and a half until 1850 was roughly comparable to those at Istanbul and Cairo during the same period. (See table 11.2 and Graph 11.1.)

Unlike the case of the mint in Cairo, no evidence has so far been located either at the Ottoman archives at Istanbul or at the mint archives in Tunis to suggest that the central government at Istanbul tried to control the course of the currency at Tunis. The circumstances behind the depreciation of the riyal are not yet well understood. If the experience of the kuruş at Istanbul is any guide, fiscal causes probably played an important role, but additional research on the monetary and fiscal conditions in Tunis are needed before that question can be answered more satisfactorily.³⁰

The gold coins issued by the Tunis mint during the first half of the eighteenth century continued to follow the design and the standards of the sultanis even though the latter were discontinued at Istanbul and Cairo in the 1690s.³¹ The sultanis and half-sultanis minted at Tunis had lower gold content than their seventeenth century counterparts in the eastern Mediterranean, however. The standards of the sultanis of Tunis may have been following the *zer-i mahhub* gold pieces minted in Istanbul and Cairo at that time. In any case, after mid-century, the gold pieces of Tunis began to be referred to as the *zer-i mahhub* as well.³² The volume of these issues was

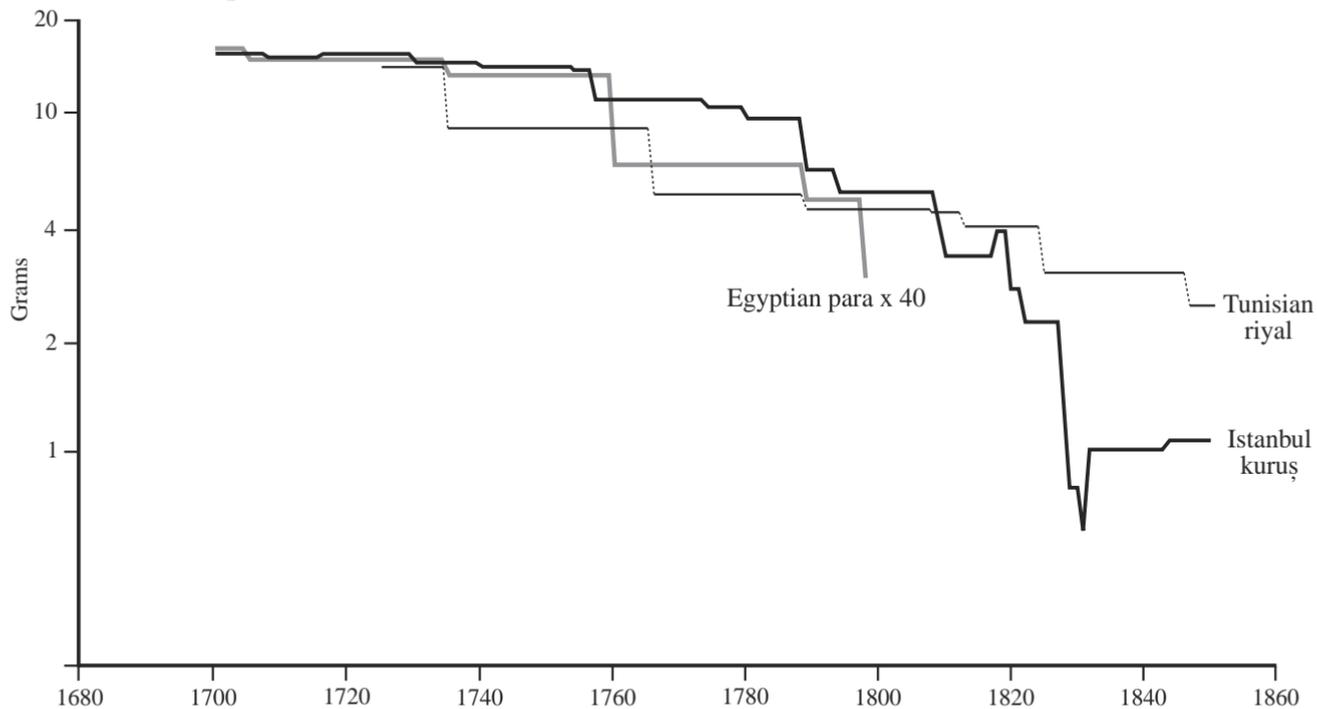
³⁰ See A. Fenina, "Fausse Monnaie et Faux-Monnayeurs dans la Régence de Tunis sous les Husaynides," Abdeljelil Temimi (ed.), *Actes de Premier Congrès International sur Corpus d'Archéologie Ottomane* (Zaghawan: FTERSI, 1997), 31–56.

³¹ Fenina, "Les Monnaies," 275–425; and R. Kocaer, *Osmanlı Altın Paraları* (Istanbul: Güzel Sanatlar Matbaası, 1967), 112–44.

³² Kocaer, *Osmanlı Altın Paraları*, 112–44.

Log scale

Graph 11.1 The silver content of Ottoman currencies, 1700–1850



limited, however, especially in relation to the gold coins minted at Algiers.³³ They were used in the Mediterranean trade and carried to the eastern Mediterranean by the European merchants.³⁴

The small square nasris or aspers of Tunis were minted irregularly until at least the end of the eighteenth century. In addition, copper coinage called *bourbe*, *fels* and *qafsi* were issued throughout the century. (See figure 31.) Of the two leading European silver coins, the Spanish piaster was used more widely in the western Mediterranean, in Algiers, and in Tunis whereas the Dutch thaler was more prominent in Tripoli and the eastern Mediterranean.³⁵ Moroccan coinage also circulated in Tunis during the eighteenth century.

With the coinage reform of 1847, the Tunisian currency moved to the bimetallic system at the gold:silver ratio of 14.85 thirteen years after a similar move was undertaken by Muhammed Ali in Egypt and three years after Istanbul. To some extent, Istanbul and Tunis were both influenced by the example of Mohammed Ali. More importantly, however, international pressure, institutional, political as well as economic, played a key role in the transition of these monetary systems to bimetallicism at about the same time. The new standards of Tunisian coinage remained unchanged for the rest of the nineteenth century.³⁶

The monetary policies of the Tunisian government soon lost all independence. No reform could be undertaken without the foreign consulates being informed first. When the *bey* of Tunis decided to open a bank and issue paper notes the announcement of these measures provoked a meeting of foreign merchants and a protest by the French. Tunisian finances then headed for a cycle of external borrowing, rising debt, and eventually a moratorium culminating in the French occupation of Tunisia in 1881.³⁷

Algeria

The evolution of monetary conditions and practices in Algeria was similar to that in Tunis in a number of important areas. Most importantly, in Algeria too, there occurred a distinct improvement in monetary conditions during the eighteenth century after the turbulence and instabilities of the

³³ Lucette Valensi suggests that the volume of gold as well as silver coin output of Tunis increased after the mid-eighteenth century, Valensi, *Tunisian Peasants*, 213.

³⁴ For trade and payments flows between the Maghreb and Ottoman ports in the early part of the eighteenth century, see, D. Panzac, "Negociants Ottomans et Activite Maritime au Maghreb (1686–1707)," D. Panzac (ed.), *Les Villes dans L'Empire Ottoman: Activité et Sociétés* (Marseille: Editions du CNRS, 1994), 221–41.

³⁵ D. Panzac, "L'Economie-Monde Ottomane en Question les Clauses Monétaires dans les Contrats d'Affretement Maritime au XVIIIe Siècle," *The Journal of the Economic and Social History of the Orient* 39 (1996), 368–78 emphasizes this geographical division.

³⁶ Fenina, "Les Monnaies," 589–668.

³⁷ Valensi, *Tunisian Peasants*, 219.

seventeenth century. Moreover, even though the political ties between Istanbul and Algeria remained limited, the linkages between the coinages of Algiers and those of Istanbul grew stronger. Gold coinage minted in Algiers adhered to the empire-wide standards in one way or another. In silver, there was a shift, in the early part of the century towards larger coins, as was the case in Tunis, and the designs of the coins increasingly resembled those in Istanbul and elsewhere in the Empire.³⁸

Thanks to the steady supplies of gold from the sub-Saharan regions, large volumes of gold coins were issued in Algiers during the eighteenth century and early part of the nineteenth century. Even though new types of gold coinage began to be minted in Tunis and elsewhere in the Empire during the second half of the eighteenth century, the larger sultani, locally referred to as dinar, continued to dominate in Algiers. In the latter part of the eighteenth century, one sultani exchanged for one and one half *zer-i mahbub*. The coins were locally referred to as sultanis or dinars.³⁹ (See figure 36.)

Moroccan, Portuguese as well as Spanish, Italian, and other European coins circulated extensively in Algeria during the seventeenth and early eighteenth centuries. The Spanish eight-real piece was by far the most prominent of these. Just as a reform of coinage operation was undertaken and larger silver coins began to be minted in Tunis in 1714, European sources indicate that the local authorities in Algiers also began to issue larger silver coins in the second decade of the century.⁴⁰ In the 1730s, one sultani exchanged for 9.5 French francs or 8.5 Algerian *batlakas*, each of which contained approximately five grams of pure silver. Thanks to the growth of exports and increasing availability of specie, Algeria enjoyed considerable monetary stability during the rest of the century. Even larger silver coins called *budju* or *riyal budju* began to be issued in the second half of the century. One budju equaled three silver batlakas or twenty-four billon *mazunas*. Multiples and fractions of the budju were also issued. In the 1820s, the budju weighed close to ten grams and contained 85 percent fine silver. One batlaka weighed 3.4 grams. One gold sultani exchanged for 4.5 budjus and one budju exchanged for 1.85 French francs. A comparison of these rates with those of the 1730s suggest that the Algerian currency lost about half of its silver content during these hundred years. In other words,

³⁸ Abun-Nasr, *History of the Maghrib*, 158–61; A. Raymond, “Les Provinces Arabes (XVIIe Siècle–XVIIIe Siècle,” in R. Mantran (ed.), *Histoire de l’Empire Ottoman* (Lille: Fayard, 1989), 407–12.

³⁹ See Walz, “Gold and Silver” 305–28 for the inflows of sub-Saharan gold during the eighteenth century; A. C. Schaendlinger, *Osmanische Numismatik* (Braunschweig: Klinckschardt and Bierman, 1973), 120–40; L. Merouche, “Les Fluctuations de la Monnaie dans L’Algérie Ottomane,” in Abdeljelil Temimi (ed.), *Mélanges Charles-Robert Ageron* (Zaghouan: FTERSI, 1996), 618–30; also Kocaer, *Osmanlı Altın Paraları*. For the circulation in Istanbul of gold coinage minted in Algiers, Tunis and Tripoli during the eighteenth century, see BOA, C.D. 2086 and 1911.

⁴⁰ Merouche, “Fluctuations de la Monnaie,” 620–24; compare with Schaendlinger, *Osmanische Numismatik*, 114–20.

the budju and the batlaka were considerably more stable during this period than the kuruş of Istanbul, the para of Cairo, and the riyal of Tunis. In addition, smaller silver and copper coins were minted under various names for daily transactions.⁴¹ Following the trend that was initiated in Tunis, silver coins issued in Algiers began to be styled more closely after the contemporary Ottoman issues, especially in the 1820s.⁴² French occupation of Algeria that began in 1830 was not completed until 1848 due to local resistance struggles. During this period, new mints were opened at Constantine and Medea and mints at al-Taqidemt and al-Mascara produced Ottoman style coins in the name of the resistance fighter Abdul-Qadir (1834–37).⁴³ (See figures 32 and 33.)

Tripoli

In *Tripolitania*, a *kuloğlu* (son of a Turkish soldier and a Maghribi woman) established the Karamanli dynasty in 1711 which ruled the province until 1835 with the exception of 1793–95. Trade with Europe and corsairing remained the leading economic activities. In the 1780s, the government in Istanbul began to increase its influence over the region. In 1835, these efforts culminated in the dissolution of the Karamanli dynasty rule and direct Ottoman rule under a governor appointed from Istanbul.⁴⁴

The Karamanlis continued to issue the gold sultanis and later the *zer-i mahbubs* with the name of the Ottoman sultans. They also minted a variety of silver coins in the first half of the eighteenth century under influences from Tunis, Istanbul, and Cairo including fractions of riyals, harrubas and multiples of paras. After mid-century, the Istanbul based kuruş system began to exert greater weight even though other coins including fractions of the riyal budju of Algiers continued to be issued. The kuruş and its fractions, from five to thirty paras, were issued in Tripoli under the name of Abdulhamid I (1774–89). The debasement of the kuruş during the first year of sultan Selim III as well as the new and larger denominations of coins that were initiated at Istanbul were followed in Tripoli. Although archival evidence is not available, it is likely that instructions regarding the design of these coins including samples were sent from Istanbul.⁴⁵ (See figure 29.)

⁴¹ Schaendlinger, *Osmanische Numismatik*, 120–40 and Krause and Mishler, *Standard Catalog*; Tal Shuval, *La Ville d'Alger vers la fin du XVIIIe Siècle, Population et Cadre Urbain* (Paris: CNRS Editions, 1998), 31–32.

⁴² C. Ölçer, *Sultan II. Mahmud Zamanında Darp Edilen Osmanlı Madeni Paraları* (Istanbul: Yenilik Basımevi, 1970), 64–76; and Krause and Mishler, *Standard Catalog*.

⁴³ Ölçer, *Sultan II. Mahmud*, 64–76.

⁴⁴ Abun-Nasr, *History of the Maghrib*, 193–205, R. Mantran, “Le Statut de l’Algérie, de la Tunisie et de la Tripolitaine dans l’Empire Ottoman,” *Atti del i Congresso Internazionale di Studi Nord Africani*, Facoltà di Scienze Politiche, Cagliari, 1965.

⁴⁵ It is not clear whether the weight and silver content of these coins followed the changing standards of coinage at Istanbul during this difficult period.

During the rapid debasement of the Istanbul kuruş under Mahmud II (1808–39), five series of the kuruş and its fractions were issued in Tripoli. In fact, the greatest variety of coins of Mahmud II anywhere in the Empire were issued by the Tripoli mint. These also included large volumes of copper coinage.

Although the weight of the Tripoli kuruş declined only moderately from about sixteen grams to ten grams in the 1830s, its silver content followed the deteriorating standards in Istanbul and Cairo rather than that of the riyal or piaster of Tunis which remained relatively stable during this period.⁴⁶ It is not clear whether the debasement of the kuruş in Tripoli was due to financial difficulties of the Tripoli government arising from the decline of corsairing under pressure from European governments or whether it was linked to the ongoing debasements and the deterioration of the currency in Istanbul, or both.⁴⁷ After direct Ottoman rule was established in 1835, the Tripoli mint was closed down and Libya returned, until the end of Ottoman rule in 1911, to the use of coins from Istanbul, Egypt, and Tunis as well as the usual variety of European coinage.

Crimea

Even though the politically unique status and autonomy of the Crimean Khanate continued until the 1770s, with Ottoman military defeats Russian pressure on the Khanate increased steadily during the eighteenth century.⁴⁸ The status of the Khanate changed in 1774 from autonomy within the Empire to full independence and it was annexed by Russia nine years later.⁴⁹ The special status of Crimea vis-à-vis the Ottoman monetary system, autonomous but not free of influence from Istanbul, also ended in 1774. Nonetheless, Crimean coinage and monetary practices during the nine year period of independence are very relevant and interesting for what they reveal about the nature and symbolism of the practices during the period of autonomy.

The Khanate continued with its own akçe system until 1774, issuing coins with the names of the Crimean khans. Even though an official link with the akçe of Istanbul did not exist, the Crimean akçe also declined in weight and silver content during the sixteenth and seventeenth centuries, albeit at a

⁴⁶ K. M. MacKenzie, "Coins of Tripoli: Fertile Field of Study," *World Coins* (1983), 104–07; and K. M. MacKenzie, "Coins Struck in the Name of Sultan Selim III at the Tripoli Mint, 1789–95," *Journal of Turkish Studies* 13 (1989), 107–14; Ölçer, *Sultan II. Mahmud*, 92–110; Krause and Mishler, *Standard Catalog*.

⁴⁷ S. Lachman, "The Silver Coins of Trablus Gharb towards the end of the Qaramanlı Rule," *The Numismatic Circular* 87 (1979), 240–41 argued for the first cause; and Ölçer, *Sultan II. Mahmud*, 92–110 proposed the second.

⁴⁸ For the status of the Khanate vis-à-vis Istanbul, see chapter 6, pp. 105–6; also A. W. Fisher, *The Crimean Tatars* (Stanford, CA: Hoover Institution Press, 1978), 1–36.

⁴⁹ Fisher, *Crimean Tatars*, pp. 58–69.

slower pace than the akçe of Istanbul. By the eighteenth century, the Crimean akçe had also turned into a very small coin, weighing only about 0.3 grams. As a result, multiples of the akçe were issued, the largest being the six-akçe piece.⁵⁰ Copper coinage, with denominations of one akçe and its fractions were also minted for daily use. The fact that the Khanate did not issue gold coinage until late in the eighteenth century is fully consistent with its less than independent status during the Ottoman period. In the absence of gold, however, domestic silver and copper coinage could not meet the demands of the economy and trade. As a result, large European silver coins such as the Polish *zloty* as well as the internationally more prominent Spanish eight-real piece and the Dutch thaler circulated widely in the Khanate.

The independent Crimean state adopted the kuruş as its basic silver unit and issued a set of large silver coins after 1774. The Crimean kuruş weighed five dirhams or about sixteen grams, almost 40 percent less than the kuruş of Istanbul at that time. Its silver content has been estimated at 5.6 grams which was 55 percent lower than that of the kuruş of Istanbul at that time.⁵¹ In the early 1780s, just a few years before independence was ended by Russia, Şahin Giray, the last of the Crimean khans, began to mint in Caffa large gold coins bearing his name, the first for any Crimean ruler.⁵²

Convergence of currencies

One important conclusion to be drawn from this survey of the Ottoman monetary system is that the eighteenth century was a period of recovery and stronger linkages between the center and periphery. With the establishment of the new kuruş and centralization of mint activity in the core regions of the Empire, the imperial mint in Istanbul was reasonably successful in supplying silver coinage to a large geographical area from the Balkans to Anatolia, as well as to Syria and Iraq. There also occurred growing interaction between the silver currencies of Egypt, Tripoli, Tunis, Crimea, and Algiers and that of Istanbul during this period. These linkages were strongest for Cairo and Tripoli but weaker for Tunis, Crimea, and Algiers. This picture based on money and currencies may appear paradoxical because the eighteenth century is generally regarded by historians as a period of increasing decentralization of the Empire.

Another important development involving Istanbul and these provinces took place in the early decades of the nineteenth century when Cairo (1834),

⁵⁰ N. Agat, "Kırım Hanlarının Paralarının Nitelikleri ve Işık Tuttukları Bazı Tarihi Gerçekler," reprints of three earlier articles, *The Turkish Numismatic Society Bülten* 7 (1982), 6–43.

⁵¹ *Ibid.*, 24, 30–35; and P. Kelly (ed.), *Universal Cambisit and Commercial Instructor*, first edition (London: Longman and Co., 1811), 169.

⁵² Agat, "Kırım Hanlarının Paraları," 36.

Istanbul (1844), and Tunis (1847) all undertook virtually identical monetary reforms, adopting the bimetallic system with fixed exchange rates between gold and silver coinage, and at the same time, abandoning the debasement of silver currencies as a means of raising fiscal revenue. It was not so much the interaction between these governments that brought about this shift. Instead, it was primarily the rapid increase in trade with Europe, the growing interaction with European merchants and governments as well as their advice and pressure that led governments in Cairo and Tunis as well as Istanbul to embrace those monetary institutions that conformed to the requirements of international trade.⁵³

The decision to abandon debasements as a means of raising fiscal revenue without the elimination of budget deficits, however, proved to be very costly in the long term for all three governments. All three began to borrow in the European financial markets during the 1850s in order to meet their short-term budgetary needs. By the middle of the 1870s, with their annual debt payments far in excess of their ability to pay, all of them were forced to declare moratoriums on their outstanding debt. The establishment of the European Public Debt Administration in Istanbul (1881), and even more dramatically, the occupation of Tunis (1881), and Egypt (1882) by the European powers were directly linked to these moratoriums.

⁵³ The Ottoman transition to bimetalism is discussed in chapter 13, pp. 207–9. For the pressures on the government of Egypt to shift to bimetalism, see Alleaume, “Politique Monétaire.”

The Great Debasement

From the 1770s until the 1840s the Ottoman state finances frequently experienced large budget deficits arising mostly from wars and, to a lesser extent, from the costs of reform. These deficits reached their peak during the 1820s and 1830s. In response, the state attempted to increase its control over revenue sources, made use of various forms of internal borrowing, and when the short term fiscal pressures mounted, resorted to debasements. The highest rates of debasement in Ottoman history took place during the reign of the reformist and centralizing sultan, Mahmud II (1808–39). The timing and magnitude of these debasements suggest that the government was quite sensitive to the costs of debasements, especially the political opposition they generated amongst the janissaries and other urban groups. After a survey of the attempts at financial centralization, this chapter examines the use of debasements as a fiscal instrument and the nature of the opposition.

Attempts at financial centralization

The reign of sultan Mahmud II was a very difficult period for the Empire and the central government. During these three decades the government was forced to deal with a series of uprisings, nationalist revolutions and wars abroad. While it was able to suppress the various uprisings of notables in both the Balkans and Anatolia, the Serbian and Greek revolutions led to the secessions of these territories from the Empire. Much more costly to the state finances than any of these was a series of wars against Russia (1806–12 and 1828–29), Iran (1820–28) and Egypt (1831–33 and 1838–39).

This was also a critical period for Western-style, centralizing reform. Attempts at military reform had begun earlier, during the reign of Selim III (1789–1807), but progress had been limited due to the opposition of the janissaries. These efforts gained momentum after the abolition of the janissaries in 1826. As the size of the new army (*Nizam-ı Cedid*) rose from a mere 2,000 around the turn of the century to 120,000 in the late 1830s,

pressures on state finances increased.¹ Roughly speaking, about half of the budget expenditures were allocated for military spending from the late eighteenth century until the 1840s; this share was considerably higher during periods of war.²

Another important and difficult task was the reorganization and modernization of the bureaucracy. The strategy of Mahmud II was to eliminate the intermediate authorities both in the capital and the provinces and to centralize power in his own hands. As the reform movement began to spread beyond the military arena in the 1820s, to administration, justice, and education, however, the demands for resources increased as well. Precise budget figures do not exist, but recent estimates suggest that after adjusting for inflation, the expenditures of the central government increased by 250 to 300 percent, from about 18 million current kuruş or 2 million ducats at the end of the eighteenth century to about 400 million current kuruş or 7 million ducats at the end of the 1830s.³ To deal with changes of such magnitude constituted a financial task of enormous proportions for the central government. As a result, one of the key goals of the reform process was the reorganization of state finances and greater centralization of the revenues. As part of these efforts the multi-treasuries and budgets of the earlier era were gradually dissolved for the single-budget system.⁴

The political and administrative capacities of the central government often determined the limits on fiscal revenue. Without an administrative network for tax collection, the government was forced to share tax revenues with the powerful groups in the provinces. In the 1820s, however, the central government began to undermine the powerful alliance between the high-level bureaucrats and financiers in the capital and the notables in the provinces. As a result, it was able to exert greater control over the tax-collection process. Through this centralization the state was able to increase, in real terms, the revenues collected at the center. The expenditures continued to rise at a faster pace, however. For this reason, the government was forced to devote a large part of its energies, from the late eighteenth century until the 1840s, toward developing new methods of long-term internal borrowing.

¹ S. J. Shaw and E. K. Shaw, *History of the Ottoman Empire and Modern Turkey*, vol. II, 1808–1975 (Cambridge University Press, 1977), 1–54.

² Y. Cezar, *Osmanlı Maliyesinde Bunalım ve Değişim Dönemi: XVIII. yy.dan Tanzimat'a Mali Tarih* (Istanbul: Alan Yayıncılık, 1986), 244–80.

³ These figures suggest that the revenues and expenditures of the central government as a percentage of total production or the size of the overall economy rose considerably and may have even doubled from the 1770s to 1840s. Cezar, *Osmanlı Maliyesinde Bunalım*, 279–81 and 299–301.

⁴ *Ibid.*, 235–301.

Evolution of internal borrowing

Until the end of the seventeenth century, the Ottoman government had relied on tax-farming for both tax collection and short-term borrowing purposes as had been the practice of most Islamic states. The deterioration of the state finances from the end of the sixteenth century, however, increased the pressures to take greater advantage of the tax-farming system. The central government thus began to increase the duration of the tax-farming contracts and demanded a larger fraction of the total amounts as advance payments.⁵

Further steps were taken in the same direction with the introduction, in 1695, of the *malikane* system in which the tax source (*mukataa*), was farmed out on a life-time basis.⁶ The purchaser of the contract (*malikaneci*) was expected to make an initial advance payment called *muaccele* and a series of annual payments termed *mal*. The exact amount of the *muaccele* was determined at the competitive auction while the annual payments were fixed before the auction. One rationale often offered for this system was that by extending the term of the contract, the state hoped that the *malikaneci* would take better care of the tax source, most importantly the peasant producers, and try to achieve long-term increases in production. In fact, the *malikane* allowed the state to use tax revenues as collateral and borrow on a longer-term basis. In comparison to the straightforward tax-farming (*iltizam*) system, the *malikane* system represented an important shift towards longer-term borrowing by the state. With the extension of their term and the introduction of larger advance payments, the long-term financing of these contracts assumed an even greater importance. The financiers (*sarrafs*) of Istanbul thus began to play an increasingly important role in the tax-collection process.⁷ In the longer term, however, the *malikane* system did not fulfill expectations. It actually led to a decline in state revenues because of the inability of the state to regain control of the revenue sources after the death of the individuals who had purchased them.⁸

After the end of the war of 1768–74, which had dramatically exposed the military as well as financial weaknesses of the Ottoman system, the financial bureaucracy started a new and related system of long-term domestic borrowing called *esham*. In this system, the annual net revenues of a tax

⁵ See chapter 5, pp. 86–87.

⁶ M. Genç, "A Study of the Feasibility of Using Eighteenth Century Ottoman Financial Records as an Indicator of Economic Activity," in Huri İslamoğlu-İnan (ed.), *The Ottoman Empire and the World Economy* (Cambridge University Press, 1987), 345–73; and M. Genç, "Osmanlı Maliyesinde Malikane Sistemi", in O. Okyar and H. Ü. Nalbandoğlu (eds.), *Türkiye İktisat Tarihi Semineri, Metinler/Tartışmalar* (Ankara: Hacettepe Üniversitesi Yayınları, 1975), 231–96.

⁷ The activities of the *sarrafs* and Galata bankers are discussed in the last section of this chapter.

⁸ Genç, "Study of the Feasibility."

Table 12.1. *The silver kuruş and its exchange rate, 1800–1914*

Year	Weight grams	Fineness percent	Silver content grams	Exchange rate of the British pound (in kuruşes)
1800	12.6	54	5.9	8
1808	12.8	46.5	5.9	19
1809	9.6	46.5	4.42	20.5
1810	5.13	73	3.74	19.8
1818	9.6	46.5	4.42	29
1820	6.41	46	2.95	35
1822	4.28	54	2.32	37
1828	3.20	46	1.47	59
1829	3.10	22	0.72	69
1831	3.00	17.5	0.53	80
1832	2.14	44	0.94	88
1839	2.14	44	0.94	104
1844	1.2	83.3	1.0	110
1914	1.2	83.3	1.0	110

Notes

1 See notes to tables 10.1 and 10.2.

2 The *tashih-i sikke* (correction of coinage) operation of 1844 introduced the new gold lira which equaled 100 silver kuruşes and fixed the gold:silver ratio at 15.09. Standards of the silver and gold coinage did not change after that date. For additional details, see chapter 13 and notes to table 13.1.

Sources C. L. Krause and C. Mishler with C. R. Bruce II, *Standard Catalog of World Coins*, twenty-first edition (Iola, WI: Krause Publications, 1994); B. Sass, "The Silver and Billon Coins Minted at Constantinople under Sultan Mahmud II (1223–55 H)," *The American Numismatic Society Notes* 18 (1972); C. Ölçer, *Sultan II. Mahmud Zamanında Darp Edilen Osmanlı Madeni Paraları* (Istanbul: Yenilik Basımevi, 1970); İ. Galib, *Takvim-i Meskukat-ı Osmaniyye* (Istanbul, H.1307/1889–90); D. Panzac, "La Piastre et le Cyclotron: Essai sur les Monnaies Ottomanes, 1687–1844"; C. Issawi, *The Economic History of Turkey, 1800–1914* (Chicago, IL: The University of Chicago Press, 1980).

source were specified in nominal terms. This amount was divided into a large number of shares which were then sold to the public for the lifetime of the buyers. The annual revenues of the source continued to be collected by the tax-farmers. The *esham* generally sold for six to seven times the annual net payments or *muaccele* which remained fixed.⁹

⁹ Cezar, *Osmanlı Maliyesinde Bunalım*, 81–83; also M. Genç, "Esham," *İslam Ansiklopedisi*, vol. XI, 1995, 376–80. The rate of interest charged by the lenders can not be determined from this initial sale price unless an assumption is made about the length of time the lender expected to receive these annual payments. Simple calculations show that on the basis of the

One motivation for the new system was to broaden the base of state borrowing and reach beyond the limited numbers of large financiers who tended to dominate the malikane auctions towards a larger pool of small and medium sized lenders. However, the inability of the state to control or limit the sales of the *esham* between individuals and the difficulties in preventing the heirs of the deceased from continuing to receive payments seriously limited the fiscal benefits of this system. During the next half century, the state vacillated between abolishing the *esham* during periods of fiscal stability and expanding it when fiscal pressures mounted and additional funds had to be secured with little regard for their long-term cost.¹⁰

During the war of 1787–92 the government also considered the possibility of borrowing from abroad, from France, Spain, or the Netherlands, which would have been a first for the Ottoman state. The Dutch government indicated in 1789 that it was not in a position to lend and referred the Ottoman government to the private sector. However, due to the difficulties in Europe arising from the French Revolution and reluctance on the Ottoman side, this possibility was not pursued any further. Another proposal was to borrow from Morocco because it was a friendly Muslim country, but it soon became clear the resources of that country were quite limited. From the late eighteenth century until the 1840s, extraordinary wartime taxes and the expropriation of the wealth of prominent individuals, especially of those who had accumulated their wealth in the service of the sultan, continued to serve as additional means of raising fiscal revenue.¹¹

The causal connections between the evolution of the Ottoman institutions of public finance as outlined above and the evolution of the European institutions of public finance during the seventeenth and eighteenth centuries have not yet been investigated despite recent research on the evolution of the Ottoman forms. The parallels between the two are quite striking. For this reason, it appears that increasing economic and financial integration with Europe brought about rapid changes not only in the institutions of private finance but also in those of public finance.¹²

initial sale price indicated above, if the average length of time the buyers expected to receive these payments was twelve years, then the implicit rate of interest at which they lent to the state was about 12 percent. With an expected length of 18 years, the implicit rate of interest increased to 14 percent.

¹⁰ Cezar, *Osmanlı Maliyesinde Bunalım*, 128–34, 198–200. The Ottoman bureaucracy considered a loan of 7.5 million kuruş or about 750,000 pounds sterling in these preliminary discussions.

¹¹ *Ibid.*, 89–92, 137–38.

¹² For the evolution of the institutions of public finance in Early Modern Europe, see G. Parker, “The Emergence of Modern Finance in Europe, 1500–1730,” in C. Cipolla (ed.), *The Fontana Economic History of Europe* (1974), vol. II, 560–82; and C. P. Kindleberger, *A Financial History of Western Europe*, second edition (Oxford University Press, 1993), 158–76. For the case of France, the country most likely to have influenced the changes in Ottoman institutions of public finance, see D. R. Weir, “Tontines, Public Finance and

The Great Debasement (1808–34)

In addition to these long and short term measures, the Ottoman government made extensive use of debasements during this extraordinary period. When sultan Mahmud II ascended the throne in 1808, the standard kuruş still contained 5.90 grams of silver, unchanged since the debasement of 1789. During the next three decades, the silver content of the Ottoman currency declined at times sharply, at times more slowly. The lowest point was reached in 1831–32 at 0.5 grams of silver, although the kuruş subsequently rose to 0.94 grams in 1832 and then to 1.0 gram in 1844 where it stayed until World War I. All in all, the kuruş lost 83 percent of its silver content from 1808 to 1844. (See table 12.1 and graph 12.1.)¹³

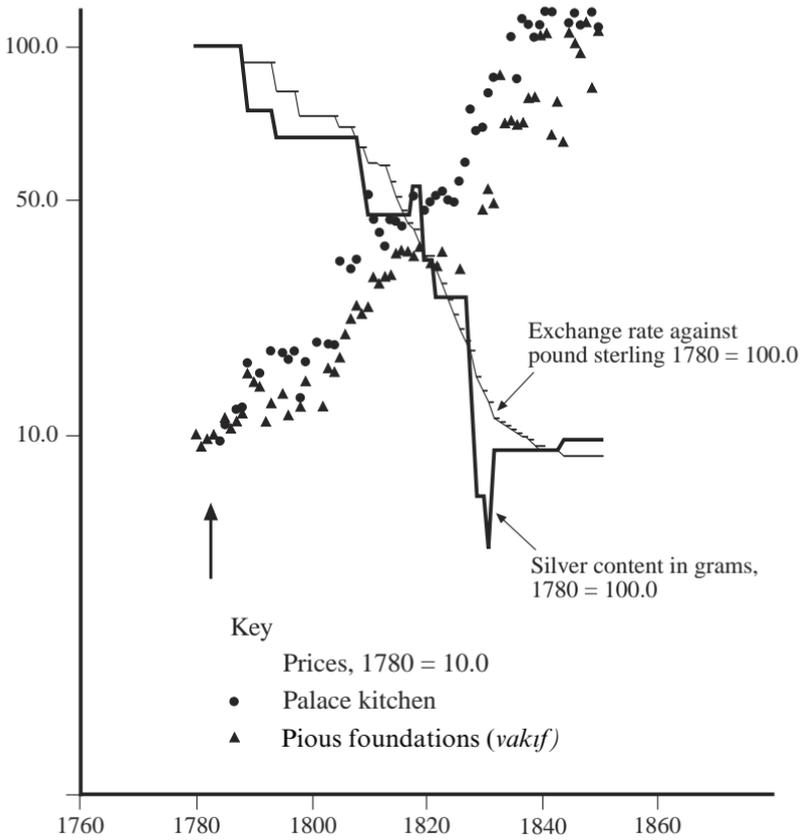
Closely paralleling the debasement of the currency was the sharp fall in its exchange rate and the rapid rise in the general price level both of which were equally dramatic. In 1788, five and a half kuruş exchanged for one Venetian ducat and eleven kuruş for one British pound sterling. By 1844 one ducat equaled fifty to fifty-two kuruş and the British pound exchanged for 110 kuruş. In other words, the Ottoman unit lost about 90 percent of its value against the leading European currencies during these six decades. Indices constructed from data recently obtained from the account books of the imperial kitchen at Istanbul and the account books of the pious foundations (*vakıf*) show that food prices increased more than 10 fold between 1780 and 1850. (See table 12.1 and graph 12.1.)

It is possible to follow the silver content of the kuruş on an annual basis from the available numismatic evidence. During his 32-year reign, Mahmud II issued ten different series of silver coins each with different standards. Most of these series covered the full range of coins from the small one- or five-para to the two-, five-, and even six-kuruş pieces. Each of these series remained in circulation anywhere from one to eight or more years. Mahmud II ended up issuing forty-seven different types of silver coins, more than any other Ottoman ruler. Detailed information is available about the standards of each coin for each of these series. In addition a limited

Revolution in France and England, 1688–1789”, *The Journal of Economic History* 49 (1989), 95–124; and F. R. Velde and D. R. Weir, “The Financial Market and Government Debt Policy in France, 1746–93,” *The Journal of Economic History* 52 (1992), 1–39.

¹³ The overall rate of debasement is even higher if 1789 is taken as the starting point. Until that year, the kuruş contained approximately 8.4 grams of silver (see table 10.1). The Ottoman unit lost 88 percent of its silver content between 1789 and 1844. For both 1808–44 and 1789–1844, these represent the highest rates of debasement in Ottoman history. There is no other period where the Ottoman currency was subjected to such a high rate of debasement in such a short period of time. The period that comes closest is 1585 to 1600. During that episode the akçe initially lost 44 percent of its silver content and continued to decline until 1600. Just before the *tashih-i sikke* (correction of coinage) operation of 1600, which returned the akçe to its 1586 level, the silver content of the substandard akçes contained 60 to 70 percent less silver than those in 1584. See table 8.2 and chapter 8.

Graph 12.1
The debasement of the kuruş and prices in Istanbul, 1780–1850



number of coins have been subjected to content analysis to establish their specie and alloy content. (See table 12.1 and figure 39.)

The central government continued to issue varieties of gold coins such as *zer-i mahbub*, *rumi*, *adli*, *hayriye* and *mahmudiye*, each with different and changing standards during the reign of Mahmud II. This gold coinage was not subjected to such rapid rates of debasement, however. The overall decline in the specie content of the gold coins during these three decades remained below 20 percent.¹⁴ It is clear that the government did not view the gold coins with the same seigniorage logic that was applied to the silver kuruş. This was because the obligations of the state were expressed in terms of the silver kuruş and not linked to any gold coin. As a result, the government did not stand to gain very much from debasing the gold coins.¹⁵

An examination of the timing and magnitudes of the debasements provides important insights into the motives of the government. On the basis of the available evidence presented in table 12.1 and graph 12.1, the debasements during the reign of Mahmud II can be divided into two subperiods. The first subperiod covers the early years of his reign, from 1808 until 1822. Six separate series or sets of silver coins were issued during this period. By the sixth series, the silver content of the kuruş had been reduced to 2.32 grams, by a total of 60 percent in comparison to 1808. The fiscal difficulties created by the wars against Russia, Iran, and the Greek Revolution figured prominently in the decline of the currency during the first subperiod.¹⁶ In fact, the third series of silver coins issued by Mahmud II in 1810 with lower silver were called *cihadiyye*, in reference to the ongoing war with Russia and the need to raise fiscal revenue for that effort. These coins remained in circulation for eight years.¹⁷ The government also issued a special *esham* called *cihadiyye eshamı* during this period which can be considered the first example of Ottoman war bonds.¹⁸

The second and even more rapid subperiod of debasement took place during and after the war of 1828–29 with Russia. In addition to wartime expenditures, the large, 400 million kuruş indemnity the Ottomans agreed to

¹⁴ Krause and Mishler, *Standard Catalog*.

¹⁵ In a different context Akira Motomura has argued that the Spanish government of the seventeenth century made a similar distinction between copper coinage on the one hand, and silver and gold on the other. The government enjoyed substantial seigniorage revenues from the minting and international circulation of silver coinage and, in order to maintain worldwide confidence in the currency, did not want to change the standards of these coins. On the other hand, the copper coinage used in the domestic economy was subjected to a policy of regular debasements. A. Motomura, "The Best and Worst of Currencies: Seigniorage and Currency Policy in Spain, 1597–1650," *The Journal of Economic History* 54 (1994), 104–27.

¹⁶ Shaw and Shaw, *History of the Ottoman Empire*, vol. II, 12–19.

¹⁷ BOA, C.D. 158, 3220, 1964, 1656, and 1632.

¹⁸ Ölçer, *Sultan II. Mahmud*; Sass, "The Silver and Billon Coins," 167–75; Krause and Mishler, *Standard Catalog*.

pay at the end of the war weighed heavily on Ottoman finances and the currency for a number of years.¹⁹ Between 1828 and 1832, the silver content of the kuruş was thus reduced sharply from 2.32 grams to 0.53 grams, a decline of 79 percent in 4 years. As financial conditions began to improve after 1832, the silver content of the currency was raised to 0.94 grams.²⁰

A simple model can now be employed to examine the attitudes and behavior of Ottoman governments towards debasement during these three decades. In this framework the government is viewed as weighing the short-term seigniorage revenues accruing from debasements against both the short-term and long-term costs of such action. If the state perceives these costs to be less than the expected seigniorage benefits, then a debasement or a series of debasements may be adopted. In other words, far from being an exercise in futility, the debasements are seen as a potentially effective instrument of fiscal policy, especially in the short term.²¹

The fiscal benefits of a debasement are not difficult to establish. The state was able to issue a larger amount of coinage in nominal terms with the same amount of specie and meet a larger fraction of its obligations.²² One related measure often adopted by the government in the aftermath of a debasement was to prohibit the use and sale of gold and silver in local markets and order that these be surrendered to the imperial mint at below market prices.²³ Finally, the state also obtained seigniorage revenue from the old coins brought to the mint by the public.

¹⁹ The Ottomans were expected to make this payment over a period of ten years. This sum amounted to approximately 150 percent of the annual revenues of the Ottoman state. It was subsequently reduced after territorial concessions by the Ottomans. Shaw and Shaw, *History of the Ottoman Empire*, vol. II, 32; Cezar, *Osmanlı Maliyesinde Bunalm*, 244–301.

²⁰ The exchange rate of the kuruş followed its silver content closely during these decades with two exceptions. First, the decline in exchange rate of the kuruş slowed and even stopped during the Napoleonic Wars as the European currencies also depreciated. Secondly, the link between the silver content of the Ottoman currency and its exchange rate was severed and the kuruş became a fiat currency during the rapid debasements of 1828–33. (See table 12.1.) As a result, the gold:silver ratio calculated from the exchange rate between the kuruş and the gold based British pound for the years 1829 to 1832 varied between 6 and 7.5. During the earlier period the same ratio fluctuated between 12 and 15.

²¹ N. Sussman, “Debasements, Royal Revenues and Inflation in France during the Hundred Years’ War, 1415–22”, *The Journal of Economic History* 53 (1993), 44–70; and Motomura, “The Best and Worst,” 104–27. Also see M. D. Bordo, “Money, Deflation and Seigniorage in the Fifteenth Century,” *Journal of Monetary Economics* 18 (1986), 337–46.

²² Contemporary Ottoman commentators argued that debasements were not useful for the state because the prices rose and the state revenues, which were fixed in nominal terms declined in real terms after each debasement. Cezar, *Osmanlı Maliyesinde Bunalm*, 147. This argument, however, does not take into account the revenue obtained by the state during the first round by issuing additional coinage. With the time horizon severely shortened under the pressure of war and severe financial crises it thus made sense to pursue debasements for short-term fiscal gains.

²³ This measure was used during the debasement of 1789 and later during some of the debasements of Mahmud II. Cezar, *Osmanlı Maliyesinde Bunalm*, 99, 139. For government attempts to bring in more silver to the Istanbul mint during this period, also see BOA, C.D. 823, 13 and H.H. 16505.

On the other side, there are a number of costs that may be borne by the state as a result of debasements. As prices rose including those paid by the state in the aftermath of a debasement, many of the state revenues which were fixed in nominal terms declined in real terms. In other words, debasements generated an initial surge in revenues followed by their decline in real terms due to the inflation they created. In the longer term, a debasement might even lead to a real decline in state revenues if the state did not adjust upwards the taxes and other revenues which had been fixed in nominal terms.²⁴

Secondly, if the public loses confidence in the currency and begins to anticipate further debasements, it will become increasingly difficult for the state to take advantage of further reductions in the specie content of coinage. In the open mint system, for example, the public may begin holding another currency and stay away from the mints. A large degree of currency substitution must have taken place during the reign of Mahmud II as varieties of foreign coinage were free to circulate.²⁵

A third cost of Ottoman debasements was the spread of counterfeiting. When the state issued new coins with lower specie content, counterfeiters immediately began to mint the new coins with the same or even higher silver content in order to share the seigniorage revenues of the state. This opportunity declined, however, when precious metal prices adjusted upwards along with other prices. Price ceilings on the specie and state attempts to obtain the specie at those official prices also encouraged counterfeiting.²⁶

Yet another cost was the adverse implications of debasements for the ability of the state to borrow domestically. As the state begins to make use of debasements, the public begins to anticipate more and it becomes more difficult to borrow from the public at large. There is evidence that with the acceleration of debasements after 1808, rates of interest increased even further and it became even more difficult for the state to sell the *esham*. For example, the ratio between the initial sale price of *esham* and the annual payments declined after 1808.²⁷

²⁴ When the public can immediately observe or learn of the rate of debasement, prices adjust more quickly and the fiscal benefits of the debasement are exhausted sooner. If, on the other hand, both the size and the degree of fineness of the coins are constantly changed, as was the case during this period, the public might underestimate the extent of the debasement and adjust to the actual rate of debasement with a lag. In that case, the seigniorage revenues will be higher. Sussman, "Debasements," 44–70, argues that manipulating the monetary standard in this fashion offers the government the same kind of opportunity to raise revenues as under a fiat money.

²⁵ For an earlier episode of currency substitution in the Ottoman Empire arising from the instability of the akçe during the seventeenth century, see chapters 8 and 9.

²⁶ For examples of counterfeiting and the circulation of counterfeit coinage during this period, see BOA, H.H. 52541/A, 52563, 27644, 48486, 48487, 48488, 24243 and C.D. 1816, 1472 and 1818.

²⁷ Cezar, *Osmanlı Maliyesinde Bunalım*, 79–89, 133–35 and 239–241.

The most important cost of Ottoman debasements, however, was the political opposition they generated amongst the urban groups, especially in the capital city. One group that disliked debasements were the guild members, shopkeepers, small merchants, as well as the wage-earning artisans. Another group that stood to lose from debasements were those who were paid fixed salaries by the state, the bureaucracy, the ulema, and specially the janissaries stationed permanently in the capital. There existed a large overlap between the guild members and the janissaries since the latter began to moonlight as artisans and shopkeepers in the seventeenth century. This broad opposition acted as a major deterrent against the more frequent use of debasements by the government.²⁸

The effectiveness of this urban opposition against debasements should not be measured in terms of the frequency of its rebellions. Just as E. P. Thompson had argued in his study of the moral economy of the English crowd in the eighteenth century that the effectiveness of the bread riots should not be measured in terms of their frequency, it was the threat of rebellions that proved just as effective in the longer term.²⁹ It ensured that the government would refrain from debasements at least during periods of peace.

Into this equation of costs and benefits, wars enter as exogenous shocks, events which raised both the need for short-term revenues for the state and the willingness of the public to accept extraordinary measures such as debasements. As the urgency of generating revenues increased, the state often invoked references to holy wars and even linked the new coinage explicitly to the ongoing wars, calling the new issues of coins and bonds *cihadiyye*, for example.

During the reigns of both Selim III and Mahmud II, the governments were well aware of the limitations imposed by the janissaries and related urban groups. From the very beginning of his reign, Mahmud II wanted to replace the janissaries with a western style army. During the early years of his long reign, however, he did not have the political support to make this critical move. After the janissaries were finally defeated and the order was abolished in 1826, in what is usually considered one of the most important political events of this period known as *Vaka-i Hayriye* or the Auspicious Event, a major constraint in the way of debasements was lifted. Only two years after this event, the government began the largest debasement ever in Ottoman history, reducing the specie content of the kuruş by 79 percent within a period of four years.

In terms of revenues for the state, the debasements of 1828–31 were considered a major success by contemporaries. The credit for this accom-

²⁸ For earlier examples of revolts by janissaries and other urban groups against debasements, see chapters 3 and 8, pp. 56–58 and 140–42.

²⁹ E. P. Thompson, "The Moral Economy of the British Crowd in the Eighteenth Century," *Past and Present* 50 (1971), 76–135.

plishment was given to Artin Kazaz, an Armenian financier who had risen through the ranks of the guild of moneychangers (*sarraḡ*) to head the imperial mint in the 1820s. Kazaz was actually only one in a long chain of Armenian financiers to administer (*amir*) the imperial mint from the late eighteenth century until the 1840s. One of his biographies relates that during the war of 1828–29 with Russia, the grand vizier considered issuing copper coinage. However, Kazaz convinced the sultan that there should be at least some silver in the new coinage. He then went on to produce a very large volume of five kuruş pieces.³⁰ His rationale was that the presence of some silver would help the state raise more revenue by making the coins more acceptable to the public and helping the state retain the opportunity to raise additional revenues by lowering the silver content in the future.³¹

One unique aspect of this debasement episode was that the contemporaries calculated the seigniorage revenues of the state from the mint records. According to these calculations, during the regnal years of twenty-two to twenty-five (approximately 1828–31), the imperial mint produced 23 million units of the large five-kuruş pieces as the eighth series of Mahmud II after lowering the silver content of the coins. The net seigniorage revenues of the state were estimated at 39.7 million kuruş. During the regnal years twenty-five and twenty-six (1831–32), an additional 245 million kuruş-worth of new coinage with even lower silver content was issued as the ninth series. This operation is estimated to have provided the state with net revenues of 119 million kuruş. After the end of the war, during the regnal years twenty-six through thirty-two the mint issued a variety of new coins with a total value of 137.8 million kuruş as the tenth series. The silver content of these coins, however, was higher than both the eighth and the ninth series and the state did not obtain any seigniorage revenue from them. The purpose of this last phase was to bring back price stability and renew confidence in the currency.³²

These were large magnitudes in relation to the size of total state revenues

³⁰ H. Kazgan, “İkinci Sultan Mahmut Devrinde Enflasyon ve Darphane Amiri Kazaz Artin,” *Toplum ve Bilim* 11 (1980), 115–30.

³¹ According to a story still being told amongst the Armenian community of Istanbul, the Russian government demanded and obtained a large payment of indemnity after the war ended with the defeat of the Ottomans. Aware that the Ottoman government frequently debased the currency, however, the Russians demanded that the sum be paid in old kuruş, not new and debased currency. The Ottoman government produced new and debased coinage anyway, but soon realized they had a problem on their hands. The coins were obviously new, very bright and shiny. So, the story goes, they lined up the new reform soldiers on the Asian side of the Bosphorus for several miles and instructed them to hold out their hands. The new coinage was then passed on from hand to hand. By the time they reached the other end, they all looked just like the old kuruş. For the negotiations with the Russian government regarding the indemnity payment and the Ottoman request to pay the indemnity in silver kuruş rather than Hungarian gold coins, see BOA, H.H. 42935, 46216 and 20194.

³² A. du Velay, *Essai sur l'Histoire Financière de la Turquie* (Paris: Arthur Rousseau, 1903), 35–36.

and expenditures at the time. Since the various revenues and expenditures were not yet incorporated into a single budget, it is difficult to estimate total annual revenues, but the sum of 250 to 300 million kuruş appears as a reasonable figure for these years. Yavuz Cezar provides an estimate of 300 million kuruş for the budget of 1838.³³ In other words, the debasements of 1828–32 provided the state with total seigniorage revenues amounting to more than one half of one year's total revenues, or an average of more than 10 percent of annual revenues for these five troubled years.

The fiscal consequences of the debasements were not limited to seigniorage revenues, however. By reducing the borrowing requirements of the state, the debasements also brought down interest rates and provided indirect benefits for the state treasury. The decline in interest rates provided fiscal relief through its impact on the tax-farming system as well. Tax-farmers who entered state auctions for the right to collect specific tax revenues of the state were required to make a certain fraction of these payments in advance for which they typically borrowed from private financiers. When the domestic interest rates declined, therefore, the auction prices of tax-farms tended to rise.³⁴

Financing the state: The Galata bankers

The rise of the moneychangers (*sarrafs*) to prominence during the eighteenth century and their transformation into large financiers called the Galata bankers during the first half of the nineteenth century was closely related to the financial difficulties of the state and its needs for short- and long-term finance. The state had relied on the financiers in the capital for short-term loans and the financing of the tax collection process ever since the sixteenth century. After the shift from short-term tax-farming to the long-term *malikane* system, the financing of the large advance payments had assumed even greater importance.

On the face of it, the *malikanes* remained almost exclusively in the hands of the Ottoman *askeri* or state class, including palace women. Other social groups were usually not allowed to participate in the auctions. In many instances, however, the *malikanecis* who won the auctions were not involved in the day-to-day operations of the *malikane* after the initial auction. Behind them were often the financiers who loaned them the money for the advance payment, arranged the subcontracting of the tax-farm and paid the annual payments (*mal*) to the treasury. The net proceeds were then divided between the state, the *malikaneci*, the subcontractors and the *sarraf*. The original purchasers of the *malikanes* thus turned into absentee owners of the tax-farms. Murat Çizakça estimates that the central government received

³³ Cezar, *Osmanlı Maliyesinde Bunalım*, 244–301.

³⁴ Kazgan, "İkinci Sultan Mahmut Devrinde Enflasyon," 122.

only about one third of the net or about one fourth of the gross tax receipts under this system.³⁵

During the course of the eighteenth century, these absentee purchasers of the *malikanes* began to develop portfolios of *malikane* shares rather than investing their capital in a single tax-farm. Investors maintaining shares in as many as twenty to thirty tax-farms were frequently observed although each of them possessed sufficient capital to buy one or more tax-farm in its entirety. The motive for this behavior was risk minimization through portfolio diversification.³⁶

The *sarrafs* of Istanbul had also been active in the finance of trade and the guilds during the seventeenth century. In general, they were free to lend with interest. In the closing years of the century, they organized around a guild and began to move their businesses to Galata, a suburb of Istanbul outside the old city walls and across the Golden Horn.³⁷ While the Jews were not as prominent in moneylending and trade as they had been in the sixteenth century, Greeks and especially the Armenians, often in partnerships of two, emerged as the leading *sarrafs* of the capital city. The Greek financiers often took advantage of the prominence of Greek merchants in maritime trade in the Black Sea and the Balkans to specialize in the finance of international trade.³⁸ Similarly, the links of the Armenian *sarrafs* to the European commercial and financial networks through the Armenian communities there played an important role in their rise. They also remained well-connected to the Ottoman bureaucracy. After Greek independence, the Armenians began to assume even more prominent positions. The leading Armenian *sarrafs* also assumed leading positions within the Armenian community (*millet*) in the Ottoman Empire, often mediating between the community and the Ottoman officialdom.³⁹ In addition, many financiers operated in the provinces financing trade and the tax collection process just like their counterparts in the capital city.⁴⁰

³⁵ M. Çizakça, *A Comparative Evolution of Business Partnerships, the Islamic World and Europe with specific reference to the Ottoman Archives* (Leiden: E. J. Brill, 1996), 165–66; also A. Salzmänn, “An Ancien Regime Revisited: Privatization and Political Economy in the Eighteenth-Century Ottoman Empire,” *Politics and Society* 21 (1993), 393–423.

³⁶ Çizakça, *Comparative Evolution*, 172–76.

³⁷ The guild of *sarrafs* had a membership of seventy-two around 1750 and eighty-nine in 1835; A. Şahiner, “The Sarrafs of Istanbul: Financiers of the Empire,” M.A. dissertation, Boğaziçi University, Department of History (1995), 78 and 83.

³⁸ T. Stoianovich, “The Conquering Balkan Orthodox Merchant,” *The Journal of Economic History* 20 (1960), 234–313.

³⁹ Şahiner, “Sarrafis of Istanbul,” 87–99; O. Jamgocyan, “Les Finances de l’Empire Ottoman et les Financiers de Constantinople, 1732–1853,” Thèse de Doctorat (Paris: Panthéon-Sorbonne, 1988), traces the lives and financial affairs of the leading Ottoman *sarrafs* through their correspondence with their European associates, by utilizing the European archives; see also O. Jamgocyan, “Une Famille de Financiers Arméniens au XVIIIe Siècle: Les Serpos,” in D. Panzac (ed.), *Les Villes dans L’Empire Ottoman: Activité et Sociétés* (Marseille: Editions du CNRS, 1991), 365–89.

⁴⁰ Genç, “Osmanlı Maliyesinde Malikane Sistemi”; and Çizakça, *Comparative Evolution*, 169–78.

The state needed and encouraged the activities of the *sarrafs*. The growing fiscal difficulties after the 1760s raised their importance as direct lenders. In addition, their connections with the European financial groups enabled them to begin organizing in Europe short-term loans to the Ottoman state. Many *sarrafs* also acted as personal financiers to the sultans and many of the leading Ottoman bureaucrats. In the aftermath of the French Revolution, these financiers were also able to replace the European merchants in Istanbul and assume control of important parts of the trade in bills of exchange.⁴¹ From traditional moneylenders and brokers, the *sarrafs* of Istanbul thus developed into large-scale financiers with well established international connections, forming the embryo of a financial bourgeoisie in Istanbul. In the process they began to be referred to as the Galata bankers although they did not establish banks until the 1840s.⁴²

The leading Armenian members of the guild of *sarrafs* often rose to positions of prominence in the Empire such as the master of the imperial mint during this period. This was at once a powerful and a dangerous position, however. While they were able to assume positions of power and leadership in both the bureaucracy and the Armenian community, many of these *sarrafs* eventually lost their lives, their wealth was confiscated, and their families sent to exile after being held responsible for financial or monetary problems such as debasements or the poor quality of coinage. Others lost their offices and even their lives after being accused of enrichment during their public careers.

The Armenian Düzöğlü family originally controlled some of the foreign trade and manufacturing-related tax-farms. The management of the imperial mint was given to a member of this family during the reign of Mustafa III (1757–74). Family members retained control of the day-to-day activities of the mint until the 1820s. Their ability to mobilize credit for the state both domestically and abroad was a key reason for the continuation of their appointments to the imperial mint during this difficult period. It is thus clear that thanks to the skills and connections of the Armenian *sarrafs*, the responsibilities of the head of the Istanbul mint went beyond the supply of coinage to include critical areas of state finances.

Artin Kazaz who was born into a modest family in eastern Anatolia took over the imperial mint in the 1820s, upon the dismissal of the last member of the Düzöğlü family. He soon emerged as the key advisor to the sultan in economic affairs and was instrumental in eliminating food shortages in

⁴¹ E. Eldem, "La Circulation de la Lettre de Change entre la France et Constantinople au XVIIIe Siècle," in H. Batu and J. L. Bacque-Grammont (eds.), *L'Empire Ottoman, la République de Turquie et la France* (Istanbul: ISIS Press, 1986), 87–97.

⁴² A. Udovitch has referred to the financiers in the medieval Islamic world as "bankers without banks." This apt term also characterizes the position of the Galata bankers before the 1840s. A. Udovitch, "Bankers without Banks: Commerce, Banking and Society in the Islamic World of the Middle Ages," *Princeton Near East Papers* 30 (1981) Princeton University, NJ.

Istanbul during and after the war of 1828–29 by advising the sultan to lift the price ceilings (*narh*). Kazaz also used his connections to obtain short and medium term loans for the Ottoman government from private financiers in Europe. At the end of the Russian war of 1828–29, the Ottoman government had agreed to pay the large sum of 400 million kuruş as reparations.⁴³ Even though the original amount was subsequently reduced after territorial concessions by the Ottomans and the czar had decided not to press the first payment, the Ottoman government was experiencing difficulties in putting together the second instalment. It was at this critical juncture that Kazaz, along with other financiers, succeeded in obtaining short-term loans from Europe towards the payment of the second instalment of the indemnity payment to Russia after the war.⁴⁴ When he died in 1834, the sultan ordered a special funeral ceremony for the man who had provided indispensable services to the state at a very critical juncture.⁴⁵

The growing influence of the *sarrafs* in trade and finance did not go unopposed, however. The growth of imports from Europe in the early part of the nineteenth century created enormous pressures for the declining guilds of the capital city. In addition, the debasements often associated with the Armenian masters of the imperial mint, dealt serious blows to the guild membership and to the janissaries. Since the seventeenth century, the overlap between the two groups had increased substantially as the soldiers began to rely increasingly on their second jobs to supplement their dwindling military pay. The rising tensions and occasional confrontations between these two groups and the financiers continued until the abolition of the janissaries in 1826.⁴⁶

By the 1840s the ranks of the Galata bankers had expanded considerably to include more Jews and Levantines, Europeans who had settled in the eastern Mediterranean, as well as Greeks and Armenians. The abilities and connections of the Baltazzi, Camondo, Coronio, Eugenides, Mavrocordato, Mısırlıoğlu, Ralli, Zarifi, and many other families to organize in Europe short-term loans for the Ottoman state had also grown substantially. In 1847, with the financial support of the government, Th. Baltazzi, from a prominent family of financiers and J. Alleon, a member of a French banking family that had settled in Turkey during the French Revolution, finally founded Banque de Constantinople, the first bank of the Galata bankers.⁴⁷

⁴³ Shaw and Shaw, *History of the Ottoman Empire*, vol. II, 32. Annual revenue of the central government was close to 200 million kuruş at that time.

⁴⁴ Kazgan, "İkinci Sultan Mahmut Devrinde Enflasyon," 122–25.

⁴⁵ *Ibid.*, 119.

⁴⁶ H. Kazgan, *Osmanlıda Avrupa Finans Kapitali* (Istanbul: Yapı Kredi Yayınları, 1995), 17–19.

⁴⁷ Hasan Ferid, *Nakid ve İtibar-ı Mali*, 3. *Kitab: Bankacılık* (Istanbul: Matbaa-i Amire, H.1334/1918), pp. 26–66; Kazgan, *Osmanlıda Avrupa Finans Kapitali*, 20; H. Kazgan, *Osmanlıdan Cumhuriyete Türk Bankacılık Tarihi* (Istanbul: Türkiye Bankalar Birliği, 1997),

The financial power of the Galata bankers reached its peak around mid-century. In the meantime, however, the borrowing needs of the Ottoman state had expanded even faster. As a result, when the Ottoman government decided to turn directly to the European financial markets for its long-term borrowing needs, the Galata bankers were subjected to growing competition from the more powerful European banks and bankers who began to open branches or establish banks of their own in the capital city as well as the provinces. The establishment, in 1863, by British and French capital of the Imperial Ottoman Bank, which would act a quasi-central bank for the Empire in addition to its commercial operations, further consolidated the position of European capital in the Ottoman financial markets.

Even though they lost their unrivaled position, the Galata bankers were not easily pushed out of state lending or private finance. They entered alliances with European financial groups and opened new banks for lending to the Ottoman government which continued to rely on them for short term borrowing in between major bond issues in the European financial markets.⁴⁸ During the crisis of 1875–81, when the Ottoman government declared a moratorium on debt payments and faced a costly war against Russia in both the Balkans and eastern Anatolia, the Ottoman Bank and the European financial markets refused to make new loans. The government then turned to the Galata bankers for the duration of the crisis. It is interesting that the Galata bankers, all of them Ottoman citizens, adopted a variety of patriotic Ottomanist themes to mobilize support for their centuries-old customer during this difficult period.⁴⁹

25–32; and İ. Tekeli and S. İlkin, *Türkiye Cumhuriyeti Merkez Bankası* (Ankara: Türkiye Cumhuriyeti Merkez Bankası, 1997), 53–54.

⁴⁸ See chapter 13, pp. 211–13.

⁴⁹ Kazgan, *Osmanlıda Avrupa Finans Kapitali*, 120–22; Tekeli and İlkin, *Merkez Bankası*, 62–69.

From bimetallism to the “limping gold standard”

Integration to the world economy

From the perspective of Ottoman economic and monetary history, the nineteenth century was a period quite different from the earlier era. On the one hand, it was characterized by major efforts at Western-style reform aimed at the centralization of the Empire, in administration, education, law, and justice as well as economic, fiscal and monetary affairs. On the other hand, it was a period of integration into the world markets and rapid expansion in foreign trade, particularly with Europe. The Ottoman economy was increasingly transformed into an exporter of primary products and an importer of manufactured goods. The foreign trade of the areas within the 1911 borders of the Empire, Anatolia, Syria, and Iraq increased by about fifteen fold between the 1820s and World War I.¹ This process was facilitated by the construction of ports and railroads and by the establishment of modern banking institutions, mostly by European capital. As a result, the commercialization of agriculture proceeded rapidly in Macedonia, western, northeastern, and central Anatolia and along the Syrian coast. The rural population was drawn to markets not only as producers of cash crops but also as purchasers of imported goods, especially of cotton textiles. These developments substantially increased the demand for and the use of money, especially in these more commercialized regions.

The nineteenth century also witnessed the territorial contraction of the Empire. In the Balkans, Serbia, Greece, Romania, and Bulgaria emerged as independent states and continued to expand their boundaries at the expense of the Ottoman state until World War I. In North Africa, the former provinces of the Empire which had enjoyed varying degrees of autonomy

¹ C. Issawi, *The Economic History of Turkey, 1800–1914* (Chicago, IL: University of Chicago Press, 1980), chapter 3; and Ş. Pamuk, *The Ottoman Empire and European Capitalism, 1820–1913: Trade, Investment and Production* (Cambridge University Press, 1987), chapter 1; see also D. Quataert, “The Age of Reforms,” in H. İnalcık and D. Quataert (eds.), *An Economic and Social History of the Ottoman Empire, 1300–1914* (Cambridge University Press, 1994), 825–87.

were occupied by European powers. Algeria was occupied in 1830 and Tunis in 1881, both by France. In Egypt, Muhammed Ali established a new dynasty in the early part of the century with only nominal ties to Istanbul. After the British occupation of Egypt in 1882, these nominal ties continued but the country was turned into a *de facto* British colony.

For European governments and especially the British who were concerned about Russian expansionism to the south, the success of Ottoman reforms was considered essential for the territorial integrity of the Empire. European governments also believed that rapid expansion of commercial ties with Europe based on the principle of comparative advantage and European direct investment were essential for the development of the Ottoman economy. As a result, they began to exert considerable pressure on the Ottoman government to abandon debasements and establish a more stable monetary system. Bimetallism was proposed as a monetary regime that would bring the Ottoman Empire more in line with the prevailing international trends and help expand both trade and European investment. The European governments also linked Ottoman access to European financial markets to fiscal reform and monetary stability. They made clear that they were ready to provide the technical expertise necessary for this purpose.²

The adoption of bimetallism and stable coinage did not mean the end of Ottoman monetary difficulties, however. Throughout the century, Ottoman governments had difficulties bringing state finances under control and used a variety of methods, both short- and long-term, to deal with the fiscal problems. These attempts to raise additional revenue or borrow had important implications for the monetary system. For this reason, a large part of the monetary history of the nineteenth century needs to be examined together with financial history and the history of state finances.

Bimetallism, new coinage, and paper money

Under the bimetallic system practiced in the nineteenth century, a country adopted two commodities as standards around which the value of other commodities were measured. The relative amounts of the two metals necessary to create the same currency unit, known as the mint ratio or the legal ratio, was specified by the authorities. Under this system, an authorized mint stood ready to coin, for anyone who requested it, either silver or gold coins of designated face value and specified weight and fineness on demand, typically for a small charge. With a fixed gold:silver ratio, either gold or silver coins would become undervalued and tend to disappear from circulation when the market-price ratio differed substantially from the legal

² C. Ölçer, *Sultan II. Mahmud Zamanında Darp Edilen Osmanlı Madeni Paraları* (Istanbul: Yenilik Basımevi, 1970), 17.

ratio. The metal with the higher international market value would then be sent abroad and be replaced with inflows of the other. Nineteenth century bimetallism thus ensured that at least one metal would always support the domestic money supply. It also had the advantage of providing stable values for both types of coins.³

For a long time, the conventional view amongst economists was that bimetallism was an unstable and unsatisfactory monetary standard involving frequent shifts between alternative monometallic standards and that monometallism was preferable to bimetallism. In recent years, however, a more sophisticated understanding of the system has emerged and its merits are being reappraised. These studies have shown that the range of tolerance around the mint ratio was actually wider than it had been assumed and the bimetallic system was in fact much more effective in stabilizing the relative market price of gold and silver than previously thought.⁴

In the Ottoman Empire, monetary conditions had assumed crisis proportions by the end of the 1830s. While the government had succeeded in raising short-term revenue from frequent debasements, the resulting inflation created political problems. The production of a large variety of coins since the beginning of the century and the inability of the government to retire the earlier series from circulation had added to the difficulties.⁵ These conditions created difficulties both for daily transactions and international trade. At the same time, the appeal and use of European coinage had increased especially in international trade and for store of wealth purposes.⁶

A reform in coinage was undoubtedly in order. As was the case with some of the other reforms, the adoption of bimetallism and new standards for both gold and silver coinage by Muhammed Ali in Egypt in 1834 set an important example for the Ottoman government. After the death of sultan Mahmud II in 1839, the new government openly expressed the intention to carry out a similar operation. New machines and technology were imported from England. Mint technicians and other specialists were invited from England and France to install the machines and advise the Ottoman

³ H. Reed, "Bimetallism and Monometallism," *Encyclopedia of Social Sciences*, first edition, Macmillan, 1930; C. P. Kindleberger, *A Financial History of Western Europe*, second edition (Oxford University Press, 1993), 57–63.

⁴ M. Friedman, "Bimetallism revisited," *Journal of Economic Perspectives* 4 (1990), 85–104; S. E. Oppers, "Recent developments in bimetallic theory," in Jaime Reis (ed.), *International Monetary Systems in Historical Perspective* (London: Macmillan, 1995), 47–70; M. Flan-dreau, "An Essay on the Emergence of the International Gold Standard, 1870–80," Centre for Economic Policy Research Discussion Paper, No. 1210 (London: 1995), 1–44.

⁵ See chapter 12, pp. 193–96.

⁶ For a detailed list of Ottoman and foreign coinage circulating in the Balkans, see D. Cohen, "La Circulation Monétaire entre les Principautés Roumaines et les Terres Bulgares (1840–1878)," *Bulgarian Historical Review* 4/2 (1976), 55–71; for the different varieties of coinage in circulation in Bagdad in the 1830s and their exchange rates, see BOA, H.H. 27815/D and 52490.

government about the new standards of coinage. Yet another member of the Düzoğlu family was appointed the head of the imperial mint.⁷

After some delay, the government finally decided to adopt the bimetallic standard in which the silver kuruş and the new gold *lira* were both accepted as legal tender, freely convertible at the fixed rate of 100 kuruşes for one gold lira and obtainable at the government mint. The new gold coins began to be produced in 1843 and the new silver coins were issued the following year along with an official declaration from the imperial mint, setting out the reasons for the reform. The gold:silver ratio was fixed at 15.09. The open-mint system was to be continued. For private individuals who brought their own specie to the imperial mint, 1 percent was charged for gold including production costs and 2.7 percent for silver coins. The mint output during the first year of the reform was twelve million liras or about eleven million pounds sterling for gold coins and four million liras or about 3.6 million pounds sterling for silver.⁸ (See figures 41 and 42.)

The government abandoned debasements as a means of raising fiscal revenue after 1844. All silver and gold coinage minted until 1922 adhered to the standards established in 1844. In addition, copper coinage with small denominations, five-, ten- and twenty-para pieces, were minted for daily transactions. Nickel coinage was introduced for the same purpose in 1910.⁹

In practice, however, the government did not command sufficient resources to withdraw all previous coinage from circulation by compulsory redemption. As a result, it was soon forced to recognize them as legal tender and even announce the official rates at which each of them would be

⁷ Ölçer, *Sultan II. Mahmud*, 17.

⁸ The silver kuruş weighed 1.2027 grams with a fineness of 83 percent. It thus contained one gram of pure silver. The gold lira weighed 7.216 grams with a fineness of 22/24 or 91.67 percent, thus containing 6.6 grams of gold. five-, ten- and twenty-kuruş pieces were also minted. The most popular of these was the large twenty-kuruş piece called *mecidiye* which was somewhat smaller than the groschen of the seventeenth century. For the full text of the government announcement including the new monetary standards, see H. A. Kuyucak, *Para ve Banka, Cilt I* (Istanbul: Istanbul Yüksek Ekonomi ve Ticaret Okulu Yayınları, 1947), 208–12; also Hasan Ferid, *Nakid ve İtibarı Milli, I. Kitap: Meskukat* (Istanbul: Hukuk Matbaası, 1914), 211–39; V. Eldem, *Osmanlı İmparatorluğu'nun İktisadi Şartları Hakkında Bir Tetkik* (Istanbul: İş Bankası Yayınları, 1970), 225–29; C. Ölçer, *Son Altı Osmanlı Padişahı Zamanında İstanbul'da Basılan Gümüş Paralar* (Istanbul: Yenilik Basımevi, 1966), 11–20.

⁹ Since these coinage standards remained in effect until the 1920s, it would be useful to give an indication of the purchasing powers involved. The daily wage of an unskilled worker in Istanbul was about six kuruşes in the 1840s and it rose to about ten to twelve kuruşes by 1914. A loaf of bread of one okka (1.28 kg) in the capital city cost one kuruş in the 1840s and two kuruşes on the eve of World War I. The wage rates are from K. Boratav, G. A. Ökçün, and Ş. Pamuk, "Ottoman Wages and the World Economy, 1839–1913," *Review, Fernand Braudel Center* 9 (1985), 379–406; and Issawi, *Economic History of Turkey*, 31–33. For the price of basic foodstuffs, see Issawi, *Economic History of Turkey*, 332–7; and C. Issawi, *The Fertile Crescent, 1800–1914, a Documentary Economic History* (Oxford University Press, 1988), 89–91.

Table 13.1. *The exchange rates of other currencies expressed in Ottoman gold liras, 1850–1914*

	1850	1914
British pound sterling	1.10	1.10
French franc	0.0433	0.044
Austrian florin/kroner	0.11	0.046
German mark	–	0.0542
Russian rouble	0.175	0.116
Egyptian lira	1.0	1.146
US dollar	0.229	0.229

Note

Between 1844 and 1878, the gold lira weighed 7.216 grams with a fineness of 22/24 or 91.67 percent, containing 6.6 grams of gold. The gold lira was also set equal to 100 silver kuruşes each of which contained one gram of pure silver. The implicit gold:silver ratio was, therefore, set at 15.09. After 1878 the link with silver was severed and gold became the only standard for Ottoman currency.

Sources

Tate's Modern Cambisit, a Manual of Foreign Exchanges and Bullion, ninth edition, London, 1858; “The Statistical Abstract for the Principal and Foreign Countries” in *British Parliamentary Papers, Accounts and Papers*, 1914; Eldem, *Osmanlı İmparatorluğu'nun İktisadi Şartları*, 225–26.

accepted. The inability of the government to retire the old coinage impaired the functioning of the new system from the beginning. Some of these coins, most notably the five- and six-kuruş pieces known as *beşlik* and *altılık*, which had been minted during 1828–34, remained in circulation especially in some of the provinces until World War I.¹⁰

Greater stability of coinage did not mean the end of fiscal difficulties or the need to raise additional revenue, however. Throughout the century, Ottoman administrations had difficulties in bringing the budget under control and resorted to a variety of methods to deal with the fiscal problems. One method of raising fiscal revenue was the printing and circulation in the Istanbul area of interest-bearing paper money called *kaime-i muteber-i nakdiyye*, or *kaime* for short. In the second half of the 1830s, with pressing military needs and the financial requirements of reform, many government departments had been allowed to issue notes of indebtedness (*sergi*) to suppliers when their assigned funds were exhausted. Thus a considerable amount of short-term debt had been accumulated, owed mostly to the Galata bankers. The government also made inquiries to some London bankers regarding the possibility of a loan to see it through the crisis. When

¹⁰ For the continued circulation of the *beşlik* and *altılık* see pp. 218–22 below.

an agreement could not be reached, however, it turned to the printing of interest bearing paper bills.¹¹

The earliest kaime was a handwritten document issued in 1840 in denominations of 500 kuruş (approximately 4.5 British pounds). It carried an annual interest rate of one eighth or 12.5 percent and had a term of eight years. The government declared repeatedly that the kaime was issued solely for the purpose of facilitating commerce and that it was to be accepted as legal tender just like gold and silver coins. It also announced that these bills would be accepted by tax collectors in the provinces and by the Treasury at Istanbul. Subsequently, smaller denominations were also issued in order to increase their use in daily transactions. The total volume of the first and second rounds of *kaime* in 1840 equaled forty million kuruş (about 360 thousand pounds sterling).

In time, the government began to refer to these issues also as *sehim kaimesi* apparently because it wanted to build on the earlier *esham* system which linked government payments to specific revenue sources of the state.¹² In the years between 1840 and 1844 the merchants of Istanbul gradually accepted these issues and the kaime circulated at par against the coins.¹³ Another round of kaime was issued in 1844 with the interest rate reduced to 6 percent per annum. In the second half of the 1840s new series of kaime continued to be issued with denominations ranging from fifty to 10,000 kuruş. The larger denominations were used mostly by merchants. The amount of kaimes in circulation is not known for this early period, but judging from the stability of prices, their supply was not excessive. (See figure 43.)

From the very beginning, however, the circulation of the kaime was plagued by counterfeiting. The first round of notes were written by hand on large sheets of paper. For the second issue indelible ink was used for the figures but the counterfeiters proved equal to the challenge. Eventually in 1842 the kaime began to be printed with an embossed seal of the sultan (*tughra*) and other protections against forgery and the earlier issues were exchanged for the printed kaimes. The government also decided to terminate the circulation of the kaime in the provinces in 1841 not only because of counterfeiting but also because of the difficulties in having it accepted.

Since their volume remained limited, the kaimes performed reasonably well until 1852. A new phase in the history of the kaime began in 1852 when paper money that did not bear any interest was put into circulation for the first time. The denominations were smaller than before, ten and twenty

¹¹ A. Akyıldız, *Osmanlı Finans Sisteminde Dönüm Noktası: Kağıt Para ve Sosyo-Ekonomik Etkileri* (Istanbul: Eren Yayıncılık, 1996), 25–49; R. Davison, “The first Ottoman Experiment with Paper Money,” in O. Okyar and H. İnalçık (eds.), *Social and Economic History of Turkey (1071–1920), Papers Presented to the First International Congress on the Social and Economic History of Turkey* (Ankara, Meteksan Limited Şirketi, 1980), 243–44.

¹² For *esham* see chapter 12, pp. 190–92.

¹³ Akyıldız, *Kağıt Para*, 41–49.

kuruşes. While the official explanation emphasized that these small denominations facilitated small daily transactions, it is clear that they also helped the treasury raise a considerable amount of new revenue. In 1853 the volume of kaime in circulation reached 175 million kuruş, or about 1.6 million pounds sterling, still not a very large sum. During the Crimean War, however, large amounts of kaime were printed and the market price expressed in gold liras declined to less than half the nominal value. One gold lira began to exchange for 200–220 kuruşes in kaimes. In 1861 a record volume of kaimes worth 1,250 million kuruşes flooded the markets and the exchange rate against the gold lira plummeted to 400 paper kuruşes. The first experiment in paper money thus resulted, more than two decades after its initiation, in a major wave of inflation. With popular protests and general discontent, the government finally agreed to retire the kaimes in 1862 with the help of short-term loans obtained from the Imperial Ottoman Bank.¹⁴

There was one other occasion before World War I in which the government resorted to non-convertible paper money. After the Ottoman government declared a moratorium on external debt payments in 1876, it became impossible to borrow from the European financial markets or the Imperial Ottoman Bank. With the Serbian uprising and the outbreak of the War of 1877–78 with Russia, the need to increase fiscal revenue became even more urgent. Kaimes were issued in both small and large denominations ranging from one kuruş to 500 kuruşes and were proclaimed legal tender in all parts of the Empire. Very quickly their volume reached sixteen million liras (14.4 million pounds sterling). The government paid its employees with the new issues. The peasants, in turn, sold their crops and paid taxes with the kaime. Because of the large volume, however, the exchange rate of the kaime declined within two years, to 450 kuruşes for the gold lira. They remained in circulation for close to three years and were retired at the end of the decade.¹⁵

Banks for lending to the state

With greater economic and financial integration with Europe, banks began to be established in the Ottoman Empire for the first time in the 1840s. Part of the demand for them came from the growth of trade with Europe and the financial needs of the merchants. In fact, the first bank to begin operations in the Ottoman Empire was the Commercial Bank of Smyrna which was

¹⁴ When the government attempted to send the kaimes to the provinces in 1861, it provoked sharp responses by the local population. Some towns proposed paying the amounts required by the government as long as the kaimes were not sent to their region. *Ibid.*, 50–90; Davison, “The First Ottoman Experiment,” 245; M. Erol, *Osmanlı İmparatorluğu’nda Kağıt Para (Kaime)* (Ankara: Türk Tarih Kurumu Basımevi, 1970), 5–7.

¹⁵ Akyıldız, *Kağıt Para*, 91–174; Erol, *Osmanlı İmparatorluğu’nda*, 15–27.

founded in London in 1844 by a group of English merchants with a capital of 200,000 pounds sterling in order to meet the growing needs of the European and other merchants in the Izmir region. The bank was forced to close down during the financial crisis of 1847.¹⁶

For most of the banks established until the 1880s, however, lending to the state remained the more important part of their operations. The first bank to be established in the Ottoman Empire was Banque de Constantinople (Dersaadet Bankası), founded in 1847 with a capital of 200,000 pounds. The bank was to provide short-term loans to the government and stabilize the exchange rate of the Ottoman paper currency. The initiative and capital for the bank came from two of the leading Galata bankers, J. Alleon and Th. Baltazzi. Because of the expansion in the volume of paper currency, however, the bank could not prevent the deterioration of the exchange rate for long. Due to mounting losses and the inability of the state to continue to provide financial support for its activities, the bank was forced to close in 1852.¹⁷

Government efforts to establish another bank for its financial and monetary needs soon led to the formation of the Ottoman Bank by a British group in 1856, in the aftermath of the Crimean War. The bank obtained a royal charter in Britain and was founded in London with a capital of 500,000 pounds but the center of its operations was located in Istanbul. It was given permission to open branches in other cities of the Empire except in Egypt.

The continuing fiscal difficulties of the government soon forced it to seek a more powerful European institution. In 1863, the British owners of the Ottoman Bank were joined by a French financial group with a 50 percent share to found the Imperial Ottoman Bank. The new bank was managed by the committees in London and Paris which directed the day-to-day administration in Istanbul. An important characteristic of the Imperial Ottoman Bank was its double nature, as a private Franco-British bank as well as a state bank in Istanbul. The bank was entrusted with most of the transactions of the state treasury in return for the obligation to provide certain short-term loans to the state. It agreed to help the state in withdrawing the existing paper currency and debased coinage from circulation. The Imperial Ottoman Bank also had a privileged position in the servicing of external debt. Most payments of the Ottoman state on its outstanding external debt were handled by the bank which was to charge 1 percent commission for this service. Finally, the Ottoman government promised not to issue any paper currency and the bank was granted the monopoly of issuing gold-backed banknotes. The bank thus enjoyed unique financial and monetary

¹⁶ R. Kasaba, "İzmir Ticaret Bankası," *Tarih ve Toplum* 43 (1987), 57–60.

¹⁷ A. du Velay, *Essai sur l'Histoire Financière de la Turquie* (Paris: Arthur Rousseau, 1903), 126–29; İ. Tekeli and S. İlkin, enlarged second edition, *Türkiye Cumhuriyeti Merkez Bankası* (Ankara: Türkiye Cumhuriyeti Merkez Bankası, 1997), 53–54.

privileges and was in a good position to derive maximum benefits from these circumstances.¹⁸

Until the middle of the 1870s, the continuing fiscal difficulties of the Ottoman government and the popularity of the high-interest Ottoman bond issues in the European financial markets, made lending to the Ottoman state a very lucrative business. The Galata bankers tried to obtain a share of this market by forming alliances with British, French, and Austrian financial groups and establishing a number of banks in the capital city. Most prominent amongst these were the Société Général de l'Empire Ottoman (founded in 1864), the Crédit Général Ottoman (1869), the Banque de Constantinople (1872) and the Société Ottomane de Change et de Valeurs (1872). In addition to providing short-term loans of their own, these institutions played the role of intermediaries between the purchasers of the Ottoman bonds and the Ottoman state, earning commission and interest from each transaction. Conditions were particularly favorable, the commissions amounted to between 10 and 12 percent of the sums actually gathered.¹⁹

In addition, a number of small commercial banks were established in the early part of the 1870s but they were closed down during the financial crisis in the second half of the 1870s. Similarly, a British group founded the Ottoman Financial Association with a capital of one million pounds in 1866 to support the cultivation of cotton in western Anatolia during the American Civil War. This financial institution was closed down soon after the end of the American Civil War and the sharp fall in international cotton prices.²⁰

External borrowing

In 1854, during the Crimean War, the Ottoman government began to sell long-term bonds in the European financial markets and this soon became the most important means of dealing with the recurring budgetary difficulties. In the early stages of this process, the Ottoman government was supported by its British counterpart and wartime ally which guaranteed the first bond issue against the Ottoman annual receipts from the Egyptian tribute. In the following two decades, the Ottoman government borrowed large sums in London, Paris, Vienna, and elsewhere under increasingly unfavorable terms. The net proceeds of these issues were directed almost

¹⁸ A. Autheman, *La Banque Impériale Ottomane* (Paris: Ministère de l'Economie et des Finances, 1996), 1–32; J. Thobie, “European Banks in the Middle East,” in Rondo Cameron and V. I. Bovykin (eds.), *International Banking 1870–1914* (Oxford University Press, 1991), 407; C. Clay, “The Bank Notes of the Imperial Ottoman Bank, 1863–1867,” *New Perspectives on Turkey* 9 (Fall, 1993), 101–18; also A. Billiotti, *La Banque Impériale Ottomane* (Paris, 1909); and A. du Velay, *Essai sur l'Histoire Financière*.

¹⁹ Thobie, “European Banks,” 407–08; Tekeli and İlkin, *Merkez Bankası*, 62–69.

²⁰ Tekeli and İlkin, *Merkez Bankası*, 62–69.

entirely towards current expenditures, however. Only a small fraction was spent on infrastructure investment and on increasing the capacity to pay back. By the second half of the 1860s, Ottoman finances had deteriorated to the point where new bond issues had become necessary to maintain the debt payments. A moratorium was in sight but the financial markets kept the process going lured by the unusually high rates of return.²¹

After the financial crises of 1873 led to the cessation of overseas lending by the European financial markets, the government was forced to declare a moratorium on its outstanding debt in 1875–76, which stood at more than 200 million pounds sterling. After lengthy negotiations, the Ottoman Public Debt Administration (OPDA) was established in 1881 to exercise European control over parts of Ottoman finances and ensure orderly payments on the outstanding debt whose nominal value was reduced approximately by half during the negotiations. For the following three decades until the outbreak of World War I, a sizable share of government revenues was controlled by the OPDA and applied to debt payments. This control and the regular payments on the debt were quite reassuring for the European financial markets. As a result, the Ottoman government was able to resume borrowing towards the end of the century. With the rise in military spending, both external borrowing and the annual payments on the outstanding debt gained momentum after the turn of the century. The almost permanent search for new loans led, in turn, to new dependencies and complications in Ottoman foreign policy. On the eve of World War I, the volume of annual borrowing as well as the outstanding external debt had once again reached the unusually high proportions witnessed in the 1870s.²²

It is worth considering here why the Ottoman government pushed aside alternative methods of financing its deficit and continued almost exclusively with external borrowing especially since that choice also defined the monetary regime of the Empire until World War I. Amongst the alternatives, internal borrowing, especially long-term internal borrowing, was not a serious possibility because of the limited size of the domestic market for funds in relation to the borrowing needs of the state. Moreover, debasements of coinage had become an impractical method of seigniorage in the nineteenth century. Inconvertible paper currency often served the same purpose without some of the limitations and disadvantages of debasements. Hence, the choices facing the Ottomans can be reduced to two: inconvertible paper currency or external borrowing. Why, then, did the Ottoman governments insist on the latter and use the former only during exceptional periods such as wars?

²¹ D. C. Blaisdell *European Financial Control in the Ottoman Empire* (New York, NY: Columbia University Press, 1929) remains the classic treatment; also du Velay, *Essai sur l'Histoire Financière*. For annual amounts of borrowing and debt payments, see Pamuk, *The Ottoman Empire*, chapter 4 and appendix III.

²² Pamuk, *The Ottoman Empire*, 56–62.

In the 1850s when the government initiated external borrowing, the appeal of long-term borrowing must have been considerable. Despite all the initial reluctance of the bureaucracy, selling bonds in the European markets with maturities of twenty years or longer and thereby postponing the fiscal problems must have appeared as an easy solution, especially in comparison to the political and economic costs associated with debasements and paper money which had burdened all governments without respite since the beginning of the century.²³

By the time the OPDA and European control over Ottoman finances was established in 1881, however, the bureaucracy had learned a good deal about the costs and consequences of borrowing abroad without bringing the budget deficits under control. To understand the preference for stable currency combined with external borrowing in this second period, we need take into account the pressure from the OPDA and other European interests and the need for the Ottoman government to maintain credibility in the European markets in order to retain the option of external borrowing.

The reasons for European pressure were the same after the 1880s as they had been in the earlier part of the century. Monetary stability was considered an important condition for the expansion of trade with Europe and for attracting direct European investment. The European creditors also made clear that monetary stability was necessary if the Ottomans wanted to retain their access to the European financial markets. In fact, the financial control exercised by the OPDA soon enabled the Ottoman government to borrow in the European markets at four to five percent per annum. In contrast, the effective rates of interest paid by the government before 1875 had fluctuated between ten to twelve percent despite stable international prices.²⁴

What was the long-term balance sheet, then, for the mid-nineteenth century regime change from debasements to stable currency and external borrowing? Relative monetary stability, rapid expansion of foreign trade, and European direct investment should appear on the positive side. Annual rate of growth of Ottoman foreign trade averaged close to five percent in real terms during the nineteenth century. There is also some evidence for economic growth in the period before World War I which can be linked to the growing commercialization of the Ottoman economy.²⁵ Monetary

²³ For Ottoman hesitation and reluctance to begin external borrowing, see O. Anderson, "Great Britain and the Beginnings of the Ottoman Public Debt," *The Historical Journal* 7 (1964), 47–63; and F. S. Rodkey, "Ottoman Concern about Western Economic Penetration in the Levant, 1849–56," *Journal of Modern History* 30 (1958), 348–53.

²⁴ For the calculation of effective rates of interest in Ottoman external borrowing, see Pamuk, *The Ottoman Empire*, 58–60.

²⁵ Eldem, *Osmanlı İmparatorluğu'nun İktisadi Şartları*, 302–309; O. Okyar, "A New Look at the Problem of Economic Growth in the Ottoman Empire, 1800–1914," *The Journal of European Economic History* 16 (1987), 7–49; and Pamuk, *The Ottoman Empire*, 130–47.

stability undoubtedly contributed to economic growth. At the same time, however, the default of 1875–76, the establishment of the Ottoman Public Debt Administration, and the surrender of some of the leading sources of revenue to the European creditors in 1881 also suggest that the Ottomans paid a heavy price for borrowing large amounts from abroad before putting their fiscal house in order.

The limping gold standard

The bimetallic standard worked quite well between 1815 and 1850 when demand and supply conditions were fairly stable. The pressures mounted after 1850, however, as the discovery of gold in California led to the appreciation of silver. The task of maintaining the stability of the bimetallic system fell to France. In an effort to stabilize the situation and promote an international bimetallic system, a group of European countries led by France came together in 1867 and formed the Latin Monetary Union agreeing to regulate their currencies jointly.

A number of developments in the 1870s made things much more difficult for the bimetallic countries and accelerated the move towards the gold standard. First, Germany transferred from silver to a gold standard after unification. Second, an increase in world output of silver occurred following the discoveries of large deposits in the United States. These developments led to a sharp fall in the price of silver, from sixteen to about thirty-five to one against gold by the end of the century. Facing the possibility of substantial inflation, countries on a silver or bimetallic standard began to move towards gold. Countries belonging to the Latin Monetary Union, under pressure from its inception, suspended the minting of silver coins in 1878, and from that time onwards, France and her colleagues operated on the so-called limping gold standard. Silver remained legal tender, but it was neither coined nor used to any significant extent in commercial transactions. By 1880, most European countries were operating on gold. There was no longer any mint in Europe where silver could be presented for free coinage.²⁶ The movement to gold was completed by the end of the century. The United States joined beginning effectively in 1879. India moved away from silver in 1893. By 1914 China was alone among major countries in still clinging to a silver standard.²⁷

In European countries and the United States, the victory of gold over silver in the 1870s was as much a political as a practical and ideological

²⁶ M. de Cecco, *Money and Empire, the International Gold Standard, 1890–1914* (Totowa, NJ: Rowman and Littlefield, 1975), 39–61; Flandreau, “An Essay,” 1–44; S. Redish, “Latin Monetary Union and the Emergence of the International Gold Standard,” in M. D. Bordo and F. Capie (eds.), *Monetary Regimes in Transition* (Cambridge University Press, 1993), 68–85.

²⁷ D. Leavens, *Silver Money* (Bloomington, IN: Principia Press, 1939), 108–30.

victory. The growing attraction of gold over silver partly reflected changing political power structures across the nineteenth century. A rising urban-capitalist class was displacing an agricultural class in the political hierarchy and urban-industrial interests favored gold and monometallism while agricultural interests sided with bimetalism. The monetary victory of gold over silver and bimetalism was in many ways coterminous with the political victory of the bourgeoisie.²⁸

The scramble for gold in the 1870s was thus a phenomenon that characterized primarily the developed countries. For one thing, the larger and more numerous transactions in the developed countries made gold more attractive while countries with lower incomes did not find silver inconvenient. Secondly, the change of political structures which redistributed power from high-inflation agricultural interests to low-inflation urban interests was more pronounced in the developed countries while the underdeveloped countries where silver and paper retained their central positions featured more traditional power structures. With some exceptions, developing countries initially remained on non-gold standards.²⁹

The international monetary changes of the 1870s took place at a time when the Ottoman government was unusually vulnerable to European pressures. The government had declared a moratorium on its debt payments and had then gone through a major war without access to outside credit. In the subsequent negotiations for debt resettlement, the nature of the new Ottoman monetary regime thus became an important issue. In the end, the preferences of the European interests, especially those of the creditors as represented by the OPDA and the Imperial Ottoman Bank, proved decisive.

The Ottoman government moved away from the bimetallic system in 1881. The link between silver and gold was severed and gold was accepted as the standard for Ottoman currency. The government also decided to limit the supply of silver coinage, most notably the twenty-kuruş *mecidiye*.³⁰ At the same time, however, the economy continued to rely heavily on silver for most daily transactions. The government did not have the reserves and financial strength to redeem the existing silver stock and move to a full-fledged gold standard. Until 1916 it accepted as payment unlimited amounts of silver coinage including the remnants of the pre-1844 system still in circulation at the slightly lower rate of 105 kuruş for one gold lira. Receiving primary support from gold and partial support from silver, the Ottoman currency system thus became another example of the “limping” standard (*topal makyas*). Gold was at the center especially in relations with the world

²⁸ G. M. Gallarotti, “The Scramble for Gold: Monetary Regime Transformation in the 1870s,” in M. D. Bordo and F. Capié (eds.), *Monetary Regimes in Transition* (Cambridge University Press, 1993), 27–28.

²⁹ Gallarotti, “Scramble for Gold,” 46–47.

³⁰ From 1883 until 1914, silver coinage was issued in limited quantities only to replace the worn coins.

economy while silver fluctuated according to supply and demand in internal commerce. The kuruş or piaster remained the basic unit of account for most daily transactions. In many ways, the emerging system was a compromise between the preferences of European interests and the realities of a low-income, agrarian country.

One advantage of going back to a silver based currency in the 1880s would have been to increase the competitiveness of the exporting and import competing sectors with the decline in silver prices and devaluation of the currency.³¹ At the same time, however, the Ottoman state had a large external debt denominated in gold. Moving to silver would have dramatically raised that burden. Moving to silver would have had a negative impact on foreign capital inflows as well. More generally, staying outside the gold standard would have meant a certain isolation and a looser integration with the European economy.³²

The Imperial Ottoman Bank which had a central role in the new system aimed at maintaining a fixed parity between the leading European currencies and the Ottoman lira, thus providing commerce and capital movements with stability and security. The bank also strived to avoid sudden variations in the rate of exchange between the gold lira and the silver kuruş. The bank continued to hold the monopoly on gold-backed banknotes and showed caution and restraint in expanding their volume. The supply of the banknotes was limited mostly to the Istanbul region and their volume remained below 1.5 million liras until 1914. This conservative policy and the relatively stable monetary environment it created favored merchants and European groups undertaking investments in the Empire.³³ (See figure 44.)

Under the new system, the nominal value of silver coins was kept well above their declining international price leading to large inflows of silver and counterfeit silver coinage. In the provinces the silver kuruş declined in value, often exchanging at 120 kuruş or more against the gold lira.³⁴ The inflow of silver was inevitably paid by outflows of gold although outside observers rarely mention this. At the same time, the government was unable to unify the silver coinage in the provinces until World War I. The circulation of both the standard and substandard varieties of smuggled coinage as well as the old five- and six-kuruş pieces from the 1830s combined with regional and seasonal variations in demand and

³¹ J. B. Nugent, "Exchange Rate Movements and Economic Development in the Late Nineteenth Century," *Journal of Political Economy* 81 (1973), 1110–35.

³² For the case of Spain that remained outside the gold standard, see P. Martin-Acena, "Spain during the Classical Gold Standard Years, 1880–1914," Michael D. Bordo and Forrest Capie (eds.), *Monetary Regimes in Transition* (Cambridge University Press, 1993), 135–72. For the full text of the government decree, see Kuyucak, *Para ve Banka, Cilt I*, 212–114.

³³ Thobie, "European Banks," 410–11; also Hasan Ferid, *Nakid ve İtibar-ı Mali*, 2. *Kitab: Evrak-ı Nakdiyye* (Istanbul: Matbaa-i Amire, 1918), 106–243.

³⁴ Billiotti, *La Banque Impériale Ottomane*, 110–124.

supply to create a wide variety of rates for silver coins vis-à-vis the gold backed lira.

The premium for gold over silver usually increased with the distance from Istanbul. For example, around the turn of the century the exchange rate of the gold lira in terms of the silver kuruş varied from 108 in Istanbul, to 125 in Aleppo, 103 to 153 in Bagdad, 124 in Jerusalem, and 103 to 170 in Basra. In Izmir, the value of the silver piaster declined from 110 kuruş per gold lira to 210 in 1895 and then to 236 in 1900. In some cases, rates for silver coinage declined as low as 250 and even 280 kuruş per gold lira.³⁵ In the more distant province of Mosul, the standard Ottoman coinage circulated with varieties of others including the pre-1844, five-kuruş (*beşlik*) and six-kuruş (*altılık*) pieces. From the 1880s until World War I, the silver kuruş steadily lost value against the gold lira and other foreign currencies. The exchange rate of the gold lira rose from 114 kuruş in 1886 to 137 kuruş in 1914 but remained stable against foreign currencies.³⁶ Since the international price of silver declined during the last quarter of the century to less than half of its levels around mid-century, it is difficult to say whether the above rates reflect the circulation of substandard coinage or large inflows of counterfeit but standard coinage. Large variations in rates in a given city or region at a given time indicate that substandard and standard coins circulated together.³⁷ In any case, these conditions provided considerable business for moneychangers.

The expansion of trade with Europe increased the circulation of the leading European currencies, especially the British pound, the French franc, and the Austrian florin and kroner in many parts of the Empire. Nonetheless, the share of Ottoman coinage in total coinage stock must have increased during the nineteenth century. Foreign coinage played a more significant role in the more distant provinces. British and French currencies circulated in Palestine and Lebanon, Austrian currencies and the Russian rouble in the Balkans, Russian coinage in the Trabzon area because of seasonal migration, and Egyptian gold pieces in Syria. In Iraq, in addition to the Iranian gold tuman and silver kran, the Indian rupee circulated because of trade and the arrival of large numbers of Indian pilgrims to the Shia shrines around Bagdad every year. Throughout the century, the silver Maria Theresa thalers of 1780 were minted in Austria and exported to

³⁵ G. Young, *Corps de Droit Ottoman*, vol. V (Oxford: Clarendon Press), 2–5; Billiotti, *La Banque Impériale Ottomane*, 124; Kuyucak, *Para ve Banka. Cilt I*, 198–203.

³⁶ S. Shields, “An Economic History of Nineteenth-Century Mosul” (Ph.D. dissertation, University of Chicago, IL: 1986), appendix B.

³⁷ In Syria, for example, the full-bodied silver coins circulated together with the substandard (*çürük*) versions. S. B. Himadeh, *The Monetary and Banking System of Syria* (Beirut: American Press, 1935), 24–28. For more detail on the monetary and financial conditions in Syria and Iraq, see Issawi, *The Fertile Crescent*, 407–75. The large differences in these exchange rates make it difficult to compare prices, wages, and other monetary magnitudes across the Empire.

Yemen and the Red Sea region where their popularity proved to be very durable.³⁸

Many contemporary observers and historians have argued that the Ottoman Empire experienced large trade and balance-of-payments deficits for most of the nineteenth century. This pattern and the related outflows of specie are then offered as the primary cause of the monetary shortages experienced in the provinces. However, a recent study of the Ottoman balance of payments for the nineteenth century showed that while trade deficits were the rule for most of the nineteenth century, these were usually financed by other payments inflows. In empire-wide terms, the trade deficits were financed by external borrowing net of debt payments during the third quarter of the century. The trade deficits of the early twentieth century were financed by a combination of direct foreign investment net of profit transfers, and to a lesser extent, by funds sent from Europe to the Jewish settlers in Palestine and remittances from Armenian and Greek emigrants abroad. The same estimates indicate that the trade deficits disappeared during the 1880s and 1890s when the government had to make large debt payments. Overall, the Ottoman balance of payments actually showed a cumulative surplus of more than 25 million pounds sterling from 1850 until World War I. One corollary of this result is that the overall money and specie stock of the Empire must have increased during the nineteenth century, providing additional liquidity for a growing population, increasing monetization, and to some extent, increases in per capita production and income levels, at least in the more commercialized regions of the Empire.³⁹

Available estimates of the Ottoman money supply on the eve of World War I are consistent with this long-term trend. Carrying forward earlier estimates prepared by Adrien Biliotti, an employee of the Imperial Ottoman Bank, and a number of other experts, Vedat Eldem estimated that the total money supply in the Ottoman Empire was approximately sixty million liras in 1914. Gold coins in circulation accounted for approximately half of this amount.⁴⁰ Banknotes of the Imperial Ottoman Bank in circulation and silver coinage were estimated at about twelve million liras each. Foreign coins in circulation amounted to five million liras or less than ten percent of the total. In addition, Eldem estimated that thirty-million-liras-worth of gold coinage was being hoarded. In his budget speech for 1917, the Minister of Finance, Cavid Bey, provided a similar estimate of fifty to fifty-five

³⁸ Biliotti, *La Banque Impériale Ottomane*, 107–11; Hasan Ferid, *Meskukat*, 332–68; Kuyucak, *Para ve Banka, Cilt I*, 200–03; Cohen, “La circulation monétaire;” H. Gerber and N. T. Gross, “Inflation or Deflation in Nineteenth Century Syria and Palestine,” *The Journal of Economic History* 40 (1980), 351–57; also S. Lachman, “The Coins of the Yemen under the Second Ottoman Occupation, April 1872–November 1918,” *The Numismatic Circular* 20/12 (1986), 271–75.

³⁹ Pamuk, *Ottoman Empire*, 216–23.

⁴⁰ Eldem, *Osmanlı İmparatorluğu'nun İktisadi Şartları*, 228–29; Biliotti, *La Banque Impériale Ottomane*, 100–11.

million liras for the money supply in circulation and ten to fifteen million liras additional in hoarding for the year 1913.⁴¹

Commercial banking

Although originally a Franco–British bank, the Imperial Ottoman Bank became more than 80 percent French owned in the 1880s and the Paris Committee soon became the real decision-making body in its Ottoman affairs. The Bank maintained its primacy in the market for Ottoman bonds until World War I. During this later period, however, its commercial- and investment-banking activities became increasingly more prominent. It developed an extensive network in the Ottoman Empire consisting of eighty establishments (branches and subbranches) as well as others in Egypt and Cyprus. The Bank also supported and to some extent coordinated the activities of French capital groups not only in the flotation of Ottoman bond issues but also various direct investment projects, in railways, ports, utilities, mining, and insurance companies. In contrast, French and European direct investment in agriculture and manufacturing remained limited until World War I. As British capital and financial groups began to scale down their interests and investments in the Ottoman Empire after 1880, German groups spearheaded by the Deutsche Bank emerged as the main rival of French capital in these activities.⁴²

After 1899 an intense competition developed between European commercial banks, both large and small, as many of them rushed to open branches in the Ottoman Empire. These banks aimed at drawing deposits from local customers to finance trade and agriculture. Most favorable conditions were offered to those possessing savings, to merchants, traders, and local notables as much to attract their deposits as to respond to their need for credit. While the Imperial Ottoman Bank was in a better position than any of its competitors, the new banks were also engaged in commercial operations, discounting commercial paper, offering terms of payment on bills of exchange.⁴³

In addition to banks or branches of banks established by European capital, domestic groups founded a small number of regional banks in the 1880s. Bank of Salonica established in 1888 and Bank of Mytilene (1891) were the most important of these. Numbers of Ottoman banks founded with domestic capital increased significantly after 1910 as a result of the

⁴¹ Eldem, *Osmanlı İmparatorluğu'nun İktisadi Şartları*, 228; and Himadeh, *Monetary and Banking System*, 25.

⁴² Thobie, “European Banks,” 413–37; Autheman, *La Banque*, chapters 6–11; Pamuk, *Ottoman Empire*, 62–81.

⁴³ Thobie, “European Banks,” 421–25; C. Clay, “The Origins of Modern Banking in the Levant: the Development of a Branch Network by the Imperial Ottoman Bank, 1890–1914,” *International Journal of Middle East Studies*, 26 (1994), 589–614.

policies of the Young Turk government that promoted the development of domestic capital and a Muslim–Turkish bourgeoisie. Four banks in Istanbul and two in Anatolia were established with the initiative and capital of domestic groups until World War I. These efforts reached a new stage with the establishment of the Osmanlı İtibar-ı Milli Bankası (Ottoman National Credit Bank) with a capital of four million liras in early 1917. It was hoped that this bank would play an important role in national economic development. There were also plans to convert this institution into a state bank and let it assume the functions of the Imperial Ottoman Bank after the expiration of the latter's privileges in 1925.⁴⁴

The most important domestic bank of the long nineteenth century, however, was the Agricultural Bank (Ziraat Bankası) established by the state in 1888 to support agricultural development through the extension of low-interest credit to cultivators. The origins of this institution went back to the Memleket Sandığı (regional fund) and the Menafi Sandığı (fund for public improvement) systems originated by the reformist governor Midhat Paşa in the Balkans during the 1860s and later duplicated throughout the Empire. In an effort to make its facilities more widely available, the bank established more than 400 branches, more than any other financial institution. Although the bank as a credit institution could not meet the full needs of cultivators, it initiated an alternative to the high rates demanded by the traditional moneylenders. As one of the few indigenous banks in the Empire, it was an important part of government organized efforts to finance economic development from domestic savings.⁴⁵

The financing of World War I

One important monetary development during the War was the decision to reform the coinage. With the Law for the Unification of Coinage (*Tevhid-i Meskukat Kanunu*) dated 1916, the government put an end to the circulation of all pre-1844 coinage and accepted the standard of 100 silver kuruş equaling one gold lira for all purposes. It also set a ceiling of 300 kuruş for all payments to the state in silver coinage and abolished the variety of exchange rates prevailing in the provinces for payments made in different kinds of silver coinage. This measure eliminated the silver leg of the limping standard and established gold as the only standard for the Ottoman currency.⁴⁶ These steps towards greater monetary unity and

⁴⁴ Z. Toprak, *Türkiye'de Milli İktisat 1908–1918* (Ankara: Yurt Yayınları, 1982), 137–49; Tekeli and İlkin, *Merkez Bankası*, 136–61.

⁴⁵ D. Quataert, "Dilemma of Development: the Agricultural Bank and Agricultural Reform in Ottoman Turkey, 1888–1908," *International Journal of Middle East Studies* 6 (1975), 210–27; Y. S. Atasagun, *Türkiye Cumhuriyeti Merkez Bankası 1888–1939* (Istanbul: Kenan Basımevi, 1939).

⁴⁶ For the text of the Law, see Kuyucak, *Para ve Banka*, Cilt I, 214–16.

stability were soon overwhelmed, however, by the exigencies of the war. After the government began to issue large volumes of paper money including small denominations to finance the war effort, silver coinage disappeared from circulation. Most of the daily transactions during the war were undertaken with paper currency whose denominations began as low as one kuruş. During the later years of the war, the Ottoman monetary system thus consisted of gold plus inconvertible paper with the gold circulating at the market rate against a paper currency which had become the unit of account.

In its outlines, this last experiment with paper money was very similar to the earlier two. Paper bills started circulating at par against the silver and gold coins in 1915. With the expansion of the volume in circulation, however, their exchange rate began to deteriorate. The expansion in paper money supply accelerated during the last two years of the war, making kaimes the leading form of war finance during this later period. Their volume reached fifty million liras at the beginning of 1917 and 100 million liras towards the end of the same year. The total amount of kaimes reached 161 million by the end of the war of which 158 million remained in circulation at the end of 1918.⁴⁷ The Imperial Ottoman Bank also increased the volume of its paper bills during the war. (See figure 45.)

The wartime kaimes were issued with the promise that they would be purchased back in gold by the state a specified period after the end of the war. This period ranged from six months to seven years depending on the issue. For the first series of kaimes, the Ottoman government deposited their equivalents in gold with the Ottoman Public Debt Administration. For the subsequent series, German treasury bonds borrowed from the German government were set aside as guarantees. The government also managed to sell eighteen million liras worth of war bonds in 1918. In addition, it obtained a total of 102-million-liras-worth of gold based foreign exchange currency from Germany and Austria.⁴⁸

The exchange rates of the kaime in Istanbul rose from 120 kuruş per gold lira early in 1916 to 400 in mid-1917 and 500 at the end of the war. Their rates were even lower in the provinces. In August 1917, for example, while one gold lira exchanged for 430 kuruş of paper currency in Istanbul, it exchanged for 450 kuruş in Bursa and Izmir, 600 in Adana, 666 in Sivas and Erzurum, 500 in Trabzon, 766 in Mosul, 540 in Aleppo, and 555 in Beirut.⁴⁹ In part because of this monetary expansion and in part because of the

⁴⁷ Toprak, *Türkiye’de Milli İktisat*, 232–63. Another episode involving paper currency occurred during the war of 1911–12 with Italy. Enver Paşa, the commander of Ottoman forces in Libya, issued paper currency both to finance the war effort and to provide a medium of exchange because shipment of coins from Istanbul could not pass through the Italian blockade. K. M. MacKenzie, “Coins of Tripoli: Fertile Field of Study,” *World Coins* 7 (1983), 106.

⁴⁸ Erol, *Osmanlı İmparatorluğu’nda*, 29–36.

⁴⁹ Toprak, *Türkiye’de Milli İktisat*, 252.

difficulties in provisioning the capital city, prices spiralled during the war, especially during the last two years. The cost-of-living index prepared by the Ottoman Public Debt Administration for Istanbul increased eighteen-fold from July 1914 to the last quarter of 1918.⁵⁰

⁵⁰ *Ibid.*, 331–33.

Conclusions

This book has examined the monetary history of a large empire located at the crossroads of intercontinental trade, always vulnerable to the vicissitudes of commerce, payments, and monetary flows. The strong, two-way interaction between long-distance trade, specie flows, and money from the late medieval era to the twentieth century made the adoption of a global perspective essential for this volume. Monetary history thus offered us the opportunity to transcend the compartmentalized approach of so many historians and emphasize the linkages between the history of the Near East and those of Europe and South Asia over a period of six centuries.

The book has also focused on local processes to study the changing patterns in the use of money and credit as well as the evolution of related institutions of finance, both private and public. It examined the nature of the state policies with respect to mines, mints, and money markets, especially in the core regions of the Empire. Utilizing numismatic and archival evidence, the volume followed the trajectories of different Ottoman currencies and studied their interaction with foreign coinage. Based on these regional perspectives, it established, for the first time, the logic of the monetary system for the entire Empire. The evolution of this system was then followed from the sixteenth century to the modern period. It is now time to recapitulate some of the findings.

Use of money and credit The long-held assumption had been that the use of money around the Eastern Mediterranean was limited to long-distance trade and parts of the urban economy. Evidence from a variety of sources has recently made clear, however, that the use of money and credit was widespread in the urban areas and also included the rural population. With the increased availability of specie and the growth of economic linkages between the urban and rural areas in the sixteenth century, large segments of the rural population came to use coinage, through their participation in markets and because of state taxation of a wide range of economic activities. Similarly, small-scale but intensive networks of credit relations developed in and around the urban centers. Neither the Islamic prohibitions against

interest and usury nor the absence of formal banking institutions prevented the expansion of credit in Ottoman society. Muslims as well as non-Muslims were prominent amongst the large-scale moneylenders in the leading urban centers.

Even though relations of money and credit as well as the rural–urban linkages were disrupted during the seventeenth century, they were reestablished with the economic expansion and fiscal stability of the eighteenth century. The nineteenth century was a period of integration into world markets and rapid expansion in foreign trade. The rural population was drawn to markets not only as producers of cash crops but also as purchasers of imported goods. These developments substantially increased the demand for and the use of money and credit, especially in the more commercialized coastal regions.

State policies In the political economy framework used in this volume, it has been argued that state economic policies often reflected the interests of powerful social groups. After the fifteenth century, it was the priorities of the central bureaucracy that shaped the economic policies of the government in Istanbul. Despite the trend towards decentralization of the Empire during the seventeenth and eighteenth centuries, the *ayan* of the provinces, merchants and agricultural producers did not become powerful enough to alter these policies. Nonetheless, there were limits to the power of the bureaucracy. State policies often had to take into account the opposition from social groups. In the provinces, locally powerful groups were able to exert increasing degrees of influence over the provincial administrators. As a result, economic policies and monetary practices were shaped by the interplay between the state and society.

In their monetary practices, Ottoman governments were well aware of the limitations of their power. In comparison to goods markets and long-distance trade, it was more difficult for governments to control physical supplies of specie or coinage and regulate prices, that is exchange rates and interest rates. The Ottoman administrators were also aware that participants in the money markets, merchants, moneychangers and financiers were able to evade state rules and regulations more easily than those in the commodity markets. Government interventions in money markets remained selective and occurred mostly during extraordinary periods such as extreme monetary turbulence or wars. On the whole, Ottoman monetary practices exhibited a large degree of flexibility and pragmatism.

Debasements A large part of the overall decline in the silver content of the akçe and then the kuruş occurred during three periods: the reign of Mehmed II during the second half of the fifteenth century; the period of fiscal and monetary instability from the 1580s to the 1640s; and finally, the reign of Mahmud II in the early decades of the nineteenth century when

debasements and inflation were faster than any other period in Ottoman history. There was not one single cause but a number of causes or motives behind these debasements. Nonetheless, there were powerful elements common to most of them.

Most importantly, it has been shown that fiscal causes dominated Ottoman debasements. Secondly, these debasements were not the result of a haphazard process but were undertaken or not undertaken after the weighing of costs and benefits by the state. While the benefits were primarily fiscal in character, the most important cost they incurred was political. Hence the state was often constrained in its ability to take advantage of debasements because of the strong opposition they generated.

It is difficult to identify a social group outside the state that consistently benefited from debasements. Most of the urban groups, the government employees, the guild members, shopkeepers and the small merchants disliked them. The most powerful opposition, however, came from the janissaries who saw the purchasing power of their wages decline after each debasement. There was a substantial overlap between the soldiers and the guild members during the seventeenth and eighteenth centuries since many of the former began to moonlight as artisans and shopkeepers. A debasement increased the likelihood that the janissaries and the guild members might form coalitions with other dissatisfied groups or join one or other political factions in the capital. This broad opposition acted as a major deterrent against debasements. The effectiveness of opposition should not be measured in terms of the frequency of rebellions, however. In the longer term, it was not the actual rebellion but the expectation or the threat of rebellions that prevented the more frequent use of debasements by the central government.

If other mechanisms, especially internal borrowing, had been available as an adequate alternative in the early part of the nineteenth century, the central government would not have been forced to resort to the most rapid process of debasement in Ottoman history. However, due to wars and the requirements of reform, the needs of the central government for additional resources had reached unprecedented proportions during this period. Despite the consideration progress they had made after the mid-eighteenth century, the Ottoman credit markets and institutions were unable to meet this large demand.

The janissaries and guild members of the capital city were quite justified in their opposition to debasements. The preliminary results of an ongoing study on prices in Istanbul, and to a lesser extent in other leading cities of the Empire, from the fifteenth to the twentieth centuries show that in the long term, debasements or the reduction of the specie content of coinage by the monetary authorities were the most important cause of Ottoman price increases. It is true that there were medium-term movements in prices expressed in grams of silver. They increased from 1500 until 1640, declined

until the early decades of the eighteenth century, and then increased again until the middle of the nineteenth century. All this, however, occurred around a basically horizontal long-term trend.

Long Term Economic Cycles There are powerful reasons why monetary and economic conditions should tend to interact and reinforce each other over the long term. While monetary stability often helps pave the way for the expansion of trade and production, monetary instability or shortages of specie often have adverse effects on credit, production and trade. Conversely, economic prosperity or expansion of economic activity often enables the state to raise additional fiscal revenue which contributes to monetary stability. For these reasons, we should expect a good deal of long-term correlation between the monetary and economic conditions. Hence, the findings of this volume about monetary conditions should help us to learn a great deal more about the long-term trends and cycles in the Ottoman economy.

Most economic historians agree that the sixteenth century until the 1580s was a period of demographic and economic expansion, at least in the core regions of the Empire. Evidence from monetary history is consistent with this picture. Another long-term development of the sixteenth century which has generated much debate is the Price Revolution. Regarding the magnitude of overall price increases in Istanbul and other Ottoman cities during the sixteenth and seventeenth centuries, my findings are in agreement with those of Ömer Lütfi Barkan. As for the breakdown of this overall increase, however, my price series based on a greater variety of sources show that silver inflation accounted for a smaller part and Ottoman debasements accounted for a larger part of these increases in comparison to Barkan's suggestion a quarter of a century ago. These results suggest that the impact of the Price Revolution on the Ottoman economy and finances was not as great as once thought.

Moreover, recent debates on the Price Revolution suggest that explanations other than that based on the simple Quantity-Theory framework deserve greater consideration. For this reason, long-term trends in population growth, urbanization and commercialization in Europe and Asia as well as the Near East and their causal connections to the velocity of circulation of money require greater scrutiny as explanations of the price changes.

One of the reasons why the debate on the Price Revolution in Europe had originally attracted so much attention was the rash claim made by Earl J. Hamilton and his followers that by redistributing income into the hands of new groups, price increases paved the way for the rise of capitalism. In a similar fashion, the Ottoman price increases were interpreted as a turning point and a leading cause of the "Ottoman decline" at the end of the sixteenth century. In retrospect, these claims to single out the Price Revolution

as a key event appear exaggerated. The Ottoman economy and society undoubtedly faced severe difficulties at the end of the sixteenth century. However, these difficulties related to other, more complex causes such as fiscal difficulties, changing techniques of warfare, changes in industrial organization in Europe. Moreover, Ottoman agriculture and industry did not enter a period of irreversible decline at the end of the sixteenth century.

Until recently, Ottoman historiography had depicted an empire in decline after the sixteenth century. This paradigm is now being replaced by one that places greater emphasis on the state's and society's ability to reorganize as a way of adapting to changing circumstances. As a corollary to this shift, economic historians have questioned whether the seventeenth and eighteenth centuries were simply a period of crisis and stagnation. There is a good deal that monetary history can offer this debate. The findings of this volume indicate that the seventeenth century was a period of monetary instability and even disintegration. These adverse conditions inevitably had an adverse impact on the economy. In contrast, the eighteenth century was a period of recovery for the Ottoman monetary system accompanied by economic expansion and fiscal stability. Moreover, monetary ties between the center and periphery of the Empire strengthened considerably during the eighteenth century. Evidence from monetary history thus indicates that not only the thesis of irreversible decline is untenable but that the conjunctures of the seventeenth and eighteenth centuries were quite different.

Empire Unlike the limited number of earlier studies on Ottoman monetary history, the present volume adopted an empire-wide perspective and focused on the whole of the Ottoman monetary system as much as the individual parts and the linkages between them. To the extent made possible by the availability of sources, the volume covered all regions of the Empire from the Balkans and Crimea through Syria, Egypt, and the Gulf to the Maghrib. These regions were drawn into very divergent patterns of trade and payments flows from Western Europe to the Indian Ocean. Needless to say, the political, administrative, and economic linkages between the center and these regions also varied enormously. Our findings thus reflect the complexity and heterogeneity of the monetary arrangements and their evolution in response to both local developments and global economic forces. They confirm that this large empire needs to be examined as an integral part of the world economy and as subject to its vicissitudes. Equally importantly, the Ottoman Empire needs to be treated not as a closed and well-controlled unit, but as a porous, sieve-like entity with loosely defined borders, especially when dealing with monetary processes.

Until the sixteenth century, the Ottoman state covering most of Anatolia and the Balkans had a unified monetary system based on the gold sultani and the silver akçe. As the Ottoman state expanded territorially, however, this simple system could not be continued. Across the large empire the

Ottomans pursued a two-tiered approach to money and currency. With a single gold coin, the ultimate symbol of sovereignty, the Empire was unified from the Balkans to Egypt and the Maghrib. The standards of the sultani, its weight and fineness, were kept identical to those of the Venetian ducat that had become the accepted standard of payment in long-distance trade across the Mediterranean and beyond.

In silver coinage used in daily transactions and to some extent in long-distance trade, the central government chose to retain many of the local currencies in the newly conquered territories. The most important reason for this preference was the wish to avoid economic disruption and possible popular unrest. It was also not clear whether the central government had the fiscal, administrative, and economic resources to unify the silver coinage of the Empire. Thus, the task of establishing a monetary system for the expanding empire was handled with a large degree of pragmatism and flexibility.

As a result, in monetary as well as other matters, there emerged inside the Empire different zones with varying degrees of administrative control. At the core were the areas most closely administered by the capital with institutions most closely resembling those in the Istanbul region. With increasing distance from the capital, the institutions and administrative practices reflected the changing balances between the capital and the provinces.

Our findings also indicate that there occurred significant changes in the nature of the monetary linkages between the center and the periphery of the Empire during these centuries. The ties between Istanbul and the monetary regimes in different parts of the Empire, Egypt, Tripoli, Tunis, and Algiers weakened substantially if not dissolved altogether during the seventeenth century. In contrast, these ties recovered and even strengthened during the eighteenth century. These links were strongest for Cairo and Tripoli but weaker for Tunis, Crimea, and Algiers. This picture based on money and currencies may appear paradoxical because the eighteenth century is generally regarded by historians as a period of increasing decentralization of the Empire. It is yet early to say whether these kinds of developments actually lay the groundwork for the centralization of the nineteenth century but that argument needs to be given serious consideration.

The empire-wide, “big-picture” perspective on monetary history adopted in this volume has thus provided major insights into other important questions, most notably into the history and evolution of Ottoman institutions and the very concept of empire, the nature of the entity, and how the Ottomans themselves viewed it.

Excerpts from Ottoman Laws on taxation, money, mints, and mines

For further details regarding the context, see pp. 34–50, 66–70 and 74–76 in chapters 2, 3, and 4.

I Excerpts from the Code of Hüdavendigâr (Bursa) [dated 1487]¹

- 1 The *resm-i çiftlik* [land tax] is collected as thirty-three akçes for each full *çiftlik*; it is collected as half for each half-*çiftlik*. For those cultivating less than half *çiftlik*, the duty is 12 akçes . . . seventy to eighty dönüm of good land is considered one *çiftlik*; 100 dönüm of average land and 130 to 150 dönüm of lower quality land are considered one *çiftlik* . . . [one dönüm equals 920 square meters or about a quarter of an acre]
- 2 From the nomads and settled peasants, the animal tax is collected as one akçe for two sheep. Lamb is counted together with sheep. Twelve akçes is taken from nomads without sheep. Three akçes is taken from each flock as sheepfolds tax . . .
- 3 The tithe is also collected from orchards and vineyards. From each dönüm of vineyard, ten akçes or five akçes or three akçes is taken depending upon locality and custom.
- 4 The duty for honey is collected as one akçe or two akçes from each beehive depending on the locality and custom . . .
- 5 The tax for brides is collected as sixty akçes from girls with dowry, forty akçes from women and at half these rates from the poor . . . The wedding tax is [one gold piece?] for the prosperous and twelve akçes for the low-income people. For the middle income, it depends on the conditions of the man and wife. If a man marries a woman again, he has to pay the wedding tax . . .
- 6 In crimes, 300 akçes is collected from someone prosperous who kills another without good cause; 200 akçes from the average-income and 100 akçes from the low-income. 150 akçes is taken from someone who takes another's eye and 100 akçes for breaking someone's head, bone, teeth or stabbing . . .

II Berat [Licence] For Mints in Roumeli and Anatolia [dated 1470–71]²

¹ Translated from Ö. L. Barkan, *Zirai Ekonominin Mali ve Hukuki Temelleri, Kanunnameler, Cilt I* (Istanbul, 1942), 1–6 and Akgündüz, *Osmanlı Kanunnameleri ve Hukuki Tahlilleri* (Istanbul: Fey Vakfı, 1990–94), vol. II, 180–85.

² Translated from N. Beldiceanu, *Les Actes des Premiers Sultans Conservés dans les Manuscrits Turcs de la Bibliothèque Nationale à Paris*, I: *Actes de Mehmed II et Bayezid II* (Paris and La

- 1 I (the Sultan) give away the management of my mints at Roumeli and Anatolia (Bursa, Ayasoluk, Amasya, Konya, Edirne, Istanbul, Serez, and Novo Brdo) subject to the following conditions:
- 2 In Istanbul, Bursa, Ayasoluk, Amasya, and Konya they should purchase 100 dirhams of silver at 285 akçes, as they used to. And in Serez at 283 akçes and at Novo Brdo at 281 akçes.
- 3 (In addition to the akçes cut at 330 per 100 dirhams of silver), they should cut thirty-three pieces from 100 dirhams of silver. These will be called Muhammed Hani and their weight will equal ten of the old akçes.
- 4 The *amil* will manage the mints under these conditions. They will pay the installments to the state every six months. Claims advanced for not making these payments will not be accepted. No one has the right to oppose the *amil* in the conduct of his affairs according to custom.

III Order for the Moneychangers [*Sarrafs*] [dated 1470–71]³

- 1 I [the Sultan] order the *sancakbey* and *kadis* of Roumeli to do the following:
- 2 The *amils* of my mints have sent to their offices the new akçes. They will announce in the markets the prohibition of transactions undertaken with the akçes withdrawn from circulation. The *yasakçı* [enforcer of prohibitions] together with the *sarraf* will punish those not obeying this order.
- 3 Those bringing silver or old akçes to the mints at Istanbul or Edirne shall be paid 285 akçes per 100 dirhams; 283 akçes per 100 dirhams at Seres and 281 akçes per 100 dirhams at the mint in Novo Brdo.
- 4 The *sarrafs* who bring to the mints in Roumeli the new akçes will be paid 5 akçes less than the official prices fixed for the mints.
- 5 The *sancakbey* and *kadis* will defend the interests of the Sultan and not those of the *amil*.

IV Excerpts from the Law for the *Emin* [manager] of the Mint of Serez [dated 1460–61 or 1470–71]⁴

- 1 The Sultan names Hacı Kemal as the *emin* of the mint of Seres. He will go there to supervise and to control the activities of the *amil* and the *sahib-i ayar*, and more generally, all activities of the mint . . .
- 2 When the public bring silver to the mint, the *emin* and the *sahib-i ayar* should sit next to the balance and weigh the silver precisely. The *amil* or his *emin* should also be present. After the silver is properly weighed, they should follow the silver to the foundry for melting, to prevent theft and fraud . . .
- 3 After the coins are properly produced, the *emin* should safeguard them in the treasury of the mint. The artisans should not take the coins home with them . . . [To verify the weights of the coins,] they should weigh 100 dirhams of coins and

Haye: Mouton and Co., 1960), 84–85 and Akgündüz, *Osmanlı Kanunnameleri*, vol. I, 384–86.

³ Translated from Beldiceanu, *Actes*, vol. I, 85 and Akgündüz, *Osmanlı Kanunnameleri*, vol. I, 404.

⁴ Translated from Beldiceanu, *Actes*, vol. I, 79–82 and Akgündüz, *Osmanlı Kanunnameleri*, vol. I, 532–35.

count 330 akçes. It is acceptable if there are 329 or 330 and a half akçes per 100 dirhams. However, if there are 331 akçes, they will send the coins back to the foundary for melting . . .

- 4 The *emin* should return the coins not to the *amil* but to the owners of the silver. The *sahib-i ayar* should also watch that the silver brought for minting is weighed properly and honestly . . .
- 5 The *kadı* must place next to the *emin*, a man capable of observing and supervising all of the above. The *emin* of the mint and the *emin* of the *kadı* must always fulfill their functions with the approval of the *kadı*. They should proceed at all times in accordance with the regulations and ancient custom without introducing changes. The *kadı* and the *emin* of the mint should bring to the knowledge of the sultan any action of the *amil* against these regulations. The *kadı* will also announce to the sultan the misdeeds committed by the *emin* or the *sahib-i ayar* and if he does not do so, he will be guilty of complicity . . .

V The Prohibition Against Silver and Old Akçes in Anatolia [first issued during the reign of Mehmed II; precise date unknown]⁵

- 1 I [the Sultan] send the *yasakçı* to the sancak of Ayasuluk, Aydın, Saruhan, Menteş, and the province of Denizli for the application of the prohibition against silver and old akçes and order the following:
- 2 The *yasakçı* will go to these regions and inspect the shops [*sandık*] in the covered markets, the rooms in the kervansarays, the seagoing vessels, the baggages of travelers and control the merchants. Wherever he finds silver without seals and old akçes withdrawn from circulation, he will confiscate them and bring them to my mints and impose on the violators the payment of two akçes per dirham of silver. He will prevent any sales and transactions undertaken with the old akçes. The violators will be arrested and punished by him.
- 3 It is allowed to sell in towns a quantity of silver not exceeding 200 dirhams to people who work on precious metals, for example jewelers and embroiderers.
- 4 The *yasakçı* will apprehend the persons found in possession of counterfeit akçes and will bring them to the *sancakbey* and the *kadı* who will open an inquiry. If the guilt of counterfeit money is established according to the shariat, they will deliver the sentence to the *yasakçı* who will then hang the perpetrator and confiscate his belongings.

VI Excerpts from the Prohibition against Gold for Istanbul and Edirne [dated 1482]⁶

- 1 The earlier prohibitions regarding the minting of gold florins in Istanbul, Edirne, and Serez had stated the following: Goldsmiths, moneychangers and jewelers must sell gold only to the mints. 129 florins [gold pieces] should be produced from 100 *miskals* of pure gold. 125 should be given to the owner and four florins should be retained as mint tax . . .

⁵ Translated from Beldiceanu, *Actes*, vol. I, 66–67 and Akgündüz, *Osmanlı Kanunnameleri*, vol. I, 570–71.

⁶ Translated from Beldiceanu, *Actes*, vol. I, 154–56 and Akgündüz, *Osmanlı Kanunnameleri*, vol. II, 338–42.

- 2 The *amil* should not take all the gold; because this would cause a scarcity of gold and would prevent the production of valuable objects . . . However, gold destined for sale will not be sold without the knowledge of the *amil*. In case there are no buyers at the price offered by them, the *amil* will buy the gold and mint florins with it. Those who want to have florins minted, will have them minted according to custom and will pay taxes. The exportation of gold is prohibited . . .
- 3 The earlier code had stated that those caught with substandard gold florins will pay a fine of forty akçeş per *miskal* of gold and will not be allowed to continue in their professions as goldsmiths and moneychangers unless the *amil* allows them to return to their activities. Under the new code, not only the violators will be apprehended but their names will be sent to my government for punishment . . .

VII Excerpts from the Novo Brdo Law for Mines [dated 1455]⁷

- 1 I [the sultan] send the *yasakçı* to Novo Brdo and the related mines to enforce the prohibitions and order them to:
- 2 The *yasakçı* will inspect the mines and all their production. He will exploit the wells and keep the equipment working. He will put to work all those not working and punish those who resist. His authority will be recognized by all those who are at the Novo Brdo and related mines . . .
- 3 If someone else other than the *amil* and his subordinates interferes in the affairs of the mines and the workers [*yamaklar*], he will be punished by the *yasakçı*.
- 4 The *yasakçı* will deliver residence permits to all those working in the mines in order to ensure the prosperity of the mines. No one has the right to interfere in the activities of the *yasakçı*.

VIII Excerpts from the Code of Egypt [dated 1524]⁸

- 1 Regarding the akçe [coinage] produced in the mint of Egypt, whether from ingots or *osmani* akçeş, eighty-four dirhams of each 100 dirhams should be pure silver and sixteen otherwise. 250 pares [paras] should be cut from each 100 dirhams. When gold arrives in caravan from Takrur (sub-Saharan Africa), it should be taken to the mint and gold sultanis should be produced at the precise standards given in the Code of Kostantaniye . . .

⁷ Translated from Beldiceanu, *Actes*, vol. I, 69–70 and Akgündüz, *Osmanlı Kanunnameleri*, vol. I, 553–56.

⁸ Translated from Barkan, *Zirai Ekonominin*, 386 and Akgündüz, *Osmanlı Kanunnameleri*, vol. VI, 139–40.

Price indices for Istanbul, 1469–1914

This appendix summarizes the methodology and preliminary results of an ongoing study on prices in Istanbul, and to a lesser extent in other leading cities of the Empire, from the fifteenth to the twentieth centuries. The study utilizes data on the prices of standard commodities (food and non-food items) collected from more than six thousand account books and price lists located in the Ottoman archives in Istanbul. In the first stage of the study, three separate food-price indices have been constructed. One of these is based on the account books and prices paid by the many pious foundations (*vakıf*), both large and small, and their soup kitchens (*imaret*). Another index is based on the account books of the palace kitchen and the third utilizes the officially established price ceilings (*narh*) for the basic items of consumption in the capital city.

To the extent possible, standard commodities have been used in the construction of the indices in order to minimize the effects of quality changes. Each of the three food indices includes the prices of ten to twelve leading items of consumption, namely flour, rice, honey, cooking oil, mutton, lamb, chick peas, lentils, onions, eggs, sugar (for the palace only), coffee (beginning in the seventeenth century for the palace and eighteenth century for the pious foundations) and olive oil for burning. In cases where the prices of one or more of these items were not available for a given year, the missing values were estimated by an algorithm that applied regression techniques to the available values. The weights of each of these items in the overall index was based on the shares of each in total expenditures of the respective institutions.

The medium- and long-term trends exhibited by these three indices are quite similar. Nonetheless, because the palace and *narh* prices might be considered as official or state-controlled prices, the study will give greater weight to the indices based on the prices paid by the pious foundations.

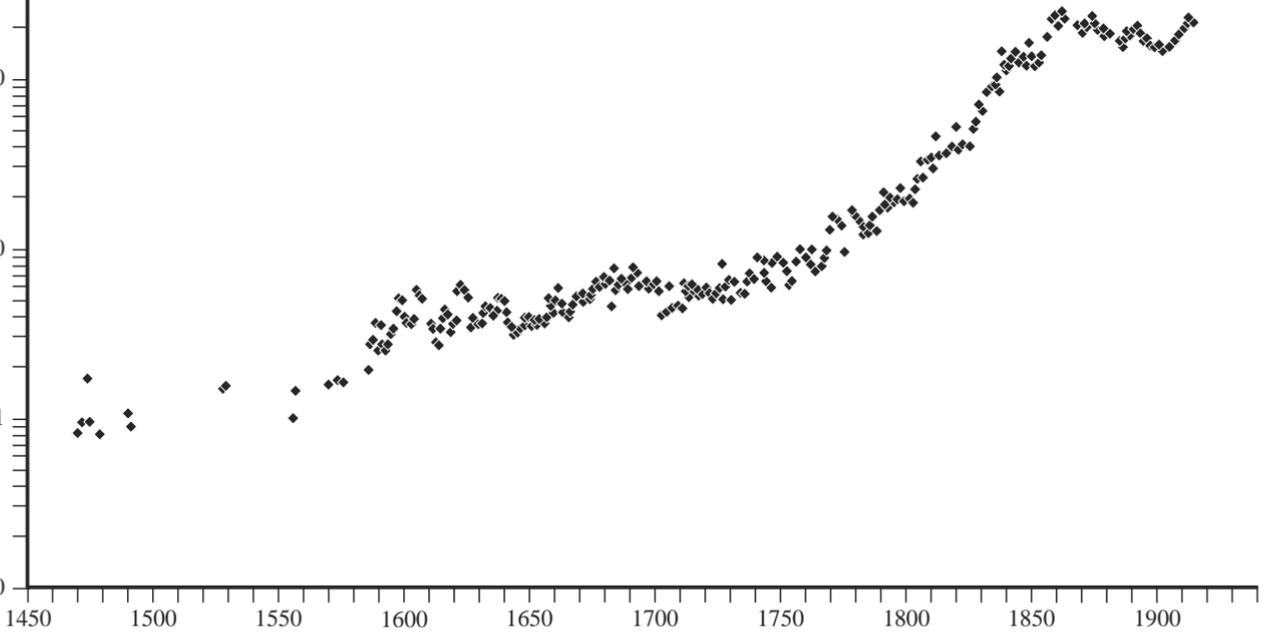
In the second stage, prices of non-food items obtained from a variety of sources, most importantly the palace account books, were added to the indices. These commodities are soap, wood, coal, nails by weight (used in construction and repairs), and two types of woolen cloth, the locally produced *çuha* and the *çuha Londrine* imported from England. Price data for a large number of other types of cloth have also been collected but none of these are available for long periods of time. Based on the existing evidence regarding the budget of an average urban consumer, the weight of food items in the overall indices is fixed between 75 and 80 percent.

Log scale



Graph A-1

Prices in Istanbul, 1469-1914; in akçes; 1489-90 = 1.0



For the period after 1863, the data from the palace, *vakıf*, and *narh* sources is very limited. For this reason, the detailed quarterly wholesale prices of the Commodity Exchange of Istanbul covering about two dozen commodities and published in the Journal of the Chamber of Commerce of Istanbul have been used until 1914. Indices based on these prices were then linked to those covering the earlier period.

Istanbul was chosen primarily because the data was most detailed for the capital city. However, price data from the account books of the pious foundations is available for other cities of the Empire especially for the period from 1650 to 1850. Separate indices will be constructed for Edirne, Bursa, Konya, and possibly Trabzon, Damascus, and Jerusalem in the near future.

We have thus obtained for the first time for the Middle East, in fact for the first time for anywhere in the non-European world, detailed and reliable price series for these four and a half centuries. For Istanbul, the results have been extended from 1914 to the present since published data on consumer prices is readily available for the recent period.

Graph A-1 shows the annual values of the overall price index that combines the food prices obtained from the account books of pious foundations with the prices of non-food items. The vertical axis is given in log scale so that the slope of the line indicates the rate of change of nominal prices. These results indicate that prices increased by a total of about 300 times from 1469 until World War I. This overall increase corresponds to an average increase of 1.3 percent per year for the entire period.

The indices show that Istanbul experienced a significant wave of inflation from the late sixteenth century to the middle of the seventeenth century when prices increased by about five-fold. This is the period usually associated with the Price Revolution of the sixteenth century (see chapter 7). The indices also show, however, that there occurred a much stronger wave of inflation beginning late in the eighteenth century and lasting into the 1850s when the prices increased by twelve to fifteen times. Most of the latter increases were associated with the debasements that began in the 1780s and accelerated during the reign of Mahmud II (1808–39) (see chapter 12). In contrast, the overall price level was relatively stable from 1650 to 1780 and from 1860 until World War I.

Having established the basic trends in prices, we will briefly consider the causes of Ottoman inflation during these centuries. Obviously there were many causes of inflation during the Early Modern period as evidenced by the large amount of literature and the extensive debates on the subject. From the long-term perspective offered by these price indices and our study of the Ottoman currency, however, there is strong evidence that debasements or the reduction of the specie content of coinage by the monetary authorities were the most important cause of Ottoman price increases.

The relation between debasements and the price level can be established more closely by following the silver content of the Ottoman currency since 1450. Graph A-2 presents the annual silver content of the akçe and later the kuruş (linked at 1 kuruş=120 akçes) based on the various tables prepared for this volume. The vertical axis is again in log scale so that the slope of the curve indicates the rate of debasement. Graph A-2 shows that the silver content of the Ottoman currency declined most rapidly during the late sixteenth and early seventeenth centuries and also during the late eighteenth and early nineteenth centuries. In contrast, prices

Log scale
in grams

Graph A-2

Silver content of the akçe, 1326-1870; 120 akçe = 1 kuruş

1.0

0.1

0.01

1300

1400

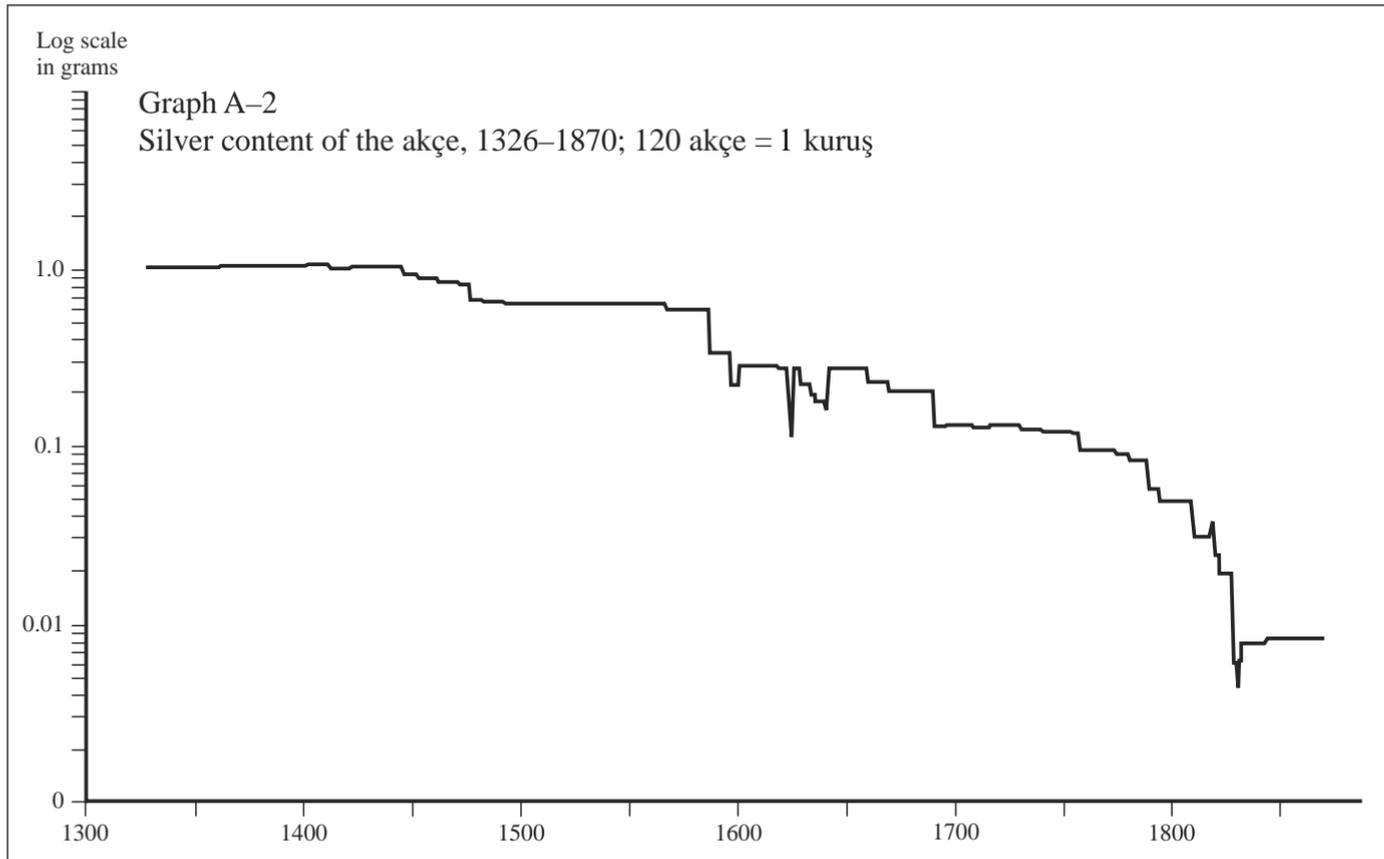
1500

1600

1700

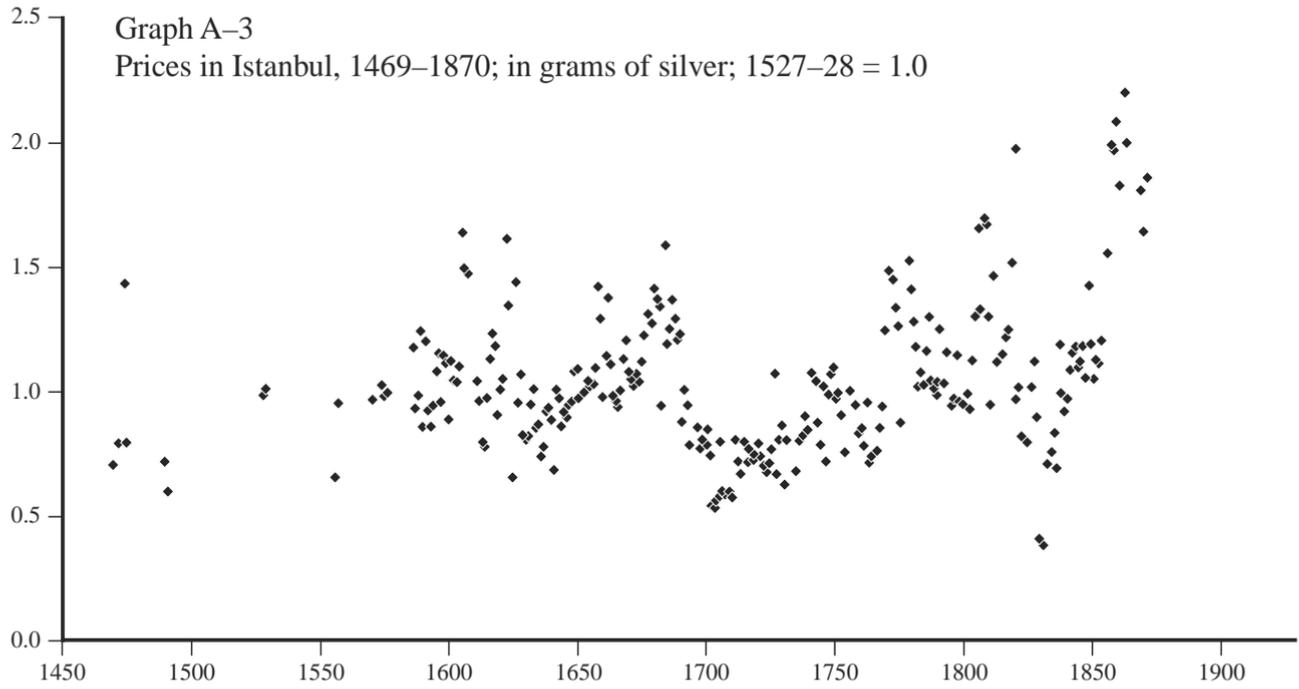
1800

0



Graph A-3

Prices in Istanbul, 1469-1870; in grams of silver; 1527-28 = 1.0



were relatively stable after 1860 when the silver content of the Ottoman currency remained unchanged. The correlation between Graphs A-1 and A-2 is quite clear.

An alternative way to examine the relationship between debasements and the price level would be to construct price indices expressed in grams of silver. Graph A-3 combines the evidence in the earlier two graphs and presents the overall price index for Istanbul in grams of silver. The series is not extended beyond 1870 since world silver prices declined sharply after that date. It is remarkable that even though nominal prices in Istanbul increased by about 300 times, prices expressed in grams of silver stayed within the relatively narrow range of 0.5 to 2.5, and mostly between 0.7 and 1.5 during these four and a half centuries.

It is true that there were medium-term movements in prices expressed in grams of silver. They increased from 1500 until 1640, declined until the early decades of the eighteenth century, and then increased again until the middle of the nineteenth century. All this, however, occurred around a basically horizontal long-term trend. In other words, debasements were the most important determinant of Ottoman prices in the long term. Prices rose inversely with the silver content of the currency or in proportion to the rate of debasements.

Preliminary comparisons with prices elsewhere suggest that medium- and long-term price trends in Istanbul expressed in grams of silver were determined together with price trends in other parts of the Mediterranean. This was the case for Istanbul and presumably for other Ottoman port cities as well which remained well-linked to the rest of the Mediterranean and the Black Sea. Over the medium and long term, trade across the Mediterranean tended to bring together prices expressed in grams of silver. In the short term, however, price correlations between Ottoman ports and other parts of the Mediterranean were weaker, especially during periods of debasements. The adjustment of the prices to the earlier levels expressed in grams of silver was not always rapid after a debasement and involved a variety of monetary, economic, and institutional factors. For that reason, Graph A-3 shows a greater degree of short-term variation around medium- and long term trends than Graph A-1.

A note on basic economic and monetary magnitudes

It would have been very useful to present in this volume detailed estimates or time series for the money supply, total income, and income per capita as well as the velocity of circulation in the Ottoman Empire. Unfortunately, evidence on these basic magnitudes is extremely scarce. This appendix provides some estimates for 1460 and 1914. No other estimate is available for the Ottoman money supply during the four and a half centuries in between.

Contemporary observers and present-day historians have estimated on the basis of mint output and other evidence that in each of the debasements of Mehmed II anywhere from 200 million to 750 million old akçes were brought into the mints and exchanged for the new. (See chapter 3, pp. 51–52.) Taking into account the fact that some important part of the existing akçe stock was never brought into the mints, the upper bound for the volume of akçes in circulation can be estimated at about 1,000 million akçes or approximately 750 tons of silver during the third quarter of the fifteenth century. At the time, the Ottoman government had not yet begun to issue gold coins of its own. If we add the value of the foreign gold coins in circulation to the above figure, we can reach the equivalent of 1,000 to 1,500 tons of silver for the total amount of specie in circulation.

Total population of the Ottoman territories in Anatolia and the Balkans at that time was approximately ten million. Our crude estimates for the money stock thus suggest the equivalent of 100 to 150 grams of silver (or 10 to 15 grams of gold) per person. It is extremely difficult to offer estimates for the income per capita prevailing in the Ottoman Empire at this time. The janissaries were paid approximately 4 akçes per day or about 1000 grams of silver per year during this period. However, their income must have been well above the average. From the identity $M \text{ times } V \text{ equals } P \text{ times } Q$ or total income, these admittedly crude figures suggest a range of 2 to 5 for the velocity of circulation of the existing money stock which is not very different from the estimates given for European countries for the early part of the sixteenth century.¹

The only other available estimate for the money stock of the Ottoman Empire is for the years preceding World War I. According to the estimates prepared first by experts of the Imperial Ottoman Bank and later presented to the parliament by the Minister of Finance, the money supply in the year 1914 was around sixty million

¹ For example, Peter H. Lindert, "English Population, Wages and Prices, 1541–1913," *Journal of Interdisciplinary History* 15 (1985).

gold liras. Since the total population of the Empire was approximately twenty-one million at the time, the money supply per person was around 2.8 liras or the equivalent of 18 grams of gold. (1.10 Ottoman liras equaled one pound sterling.) Total income of the Ottoman Empire on the eve of World War I was estimated by Vedat Eldem at 240 million gold liras.² These estimates indicate that the velocity of circulation of the existing money stock was close to 4.

Our simple calculations thus suggest that there was only a limited increase in both the money stock per capita and the velocity of circulation of money during these four and one-half centuries. Perhaps not surprisingly, these figures raise more questions than they can answer. We hope that future research will be able to provide more reliable and more detailed answers to these and other related questions.

² V. Eldem, *Osmanlı İmparatorluğu'nun İktisadi Şartları Hakkında Bir Tetkik* (Istanbul: İş Bankası Yayınları, 1970), 302–06.

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