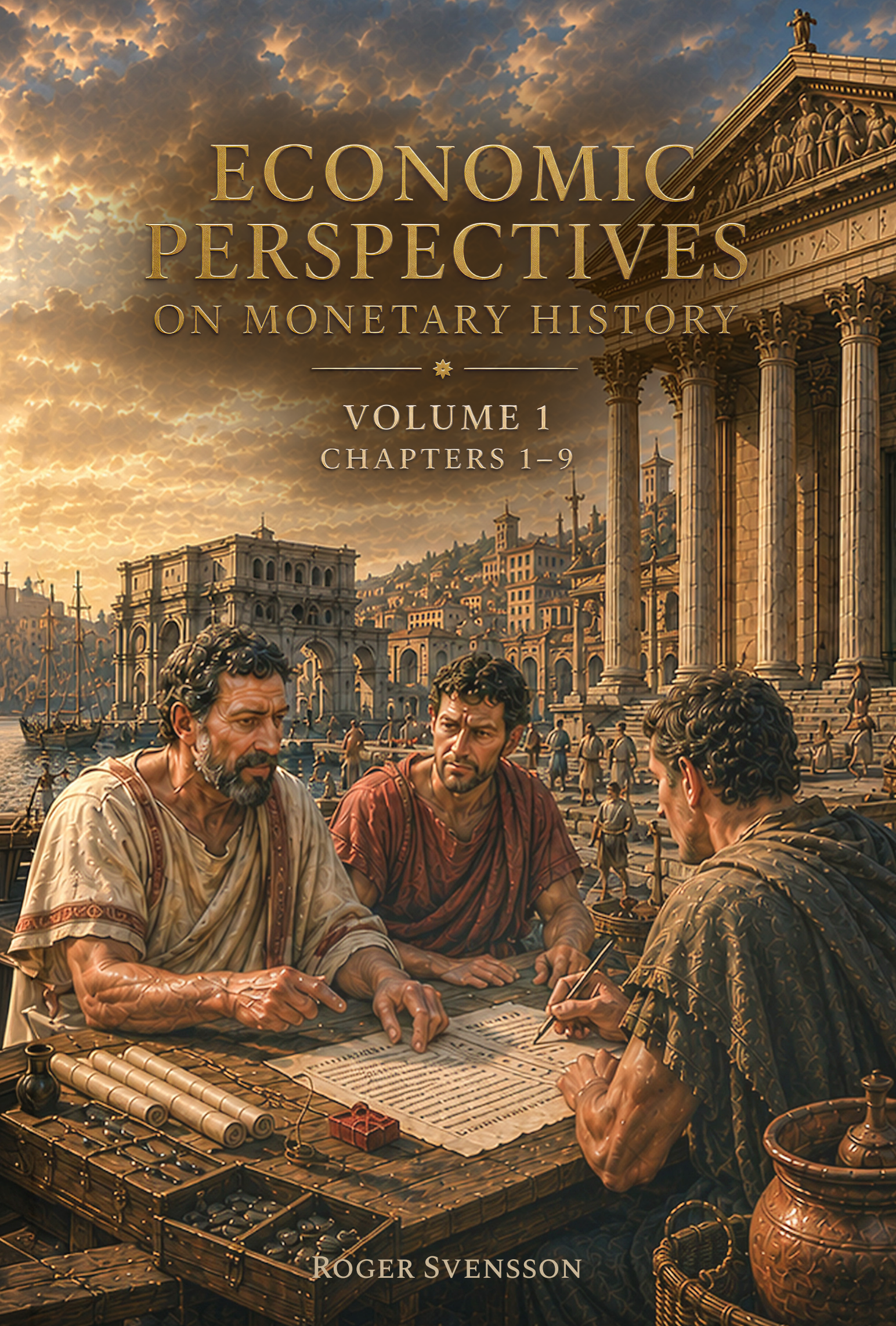




ECONOMIC PERSPECTIVES ON MONETARY HISTORY

— ★ —
VOLUME 1
CHAPTERS 1–9

ROGER SVENSSON

Economic Perspectives on Monetary History

Roger Svensson

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Author affiliation: The Research Institute of Industrial Economics (IFN), Stockholm

Contact: roger.svensson@ifn.se

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Contents

Maps

Figures / Diagrams

Tables

Foreword

Volume 1: Chapters 1–9

1. Money, Trust, and Transaction Costs	1
1.1. Why an economic perspective on monetary history?	2
1.2. Money as function, not only form	2
1.3. Transaction costs and trust	3
1.4. Money, markets, and states	3
1.5. Why the book is thematic rather than chronological	4
1.6. The organization of the book	5
1.7. Coins as money and messages	6
1.8. What this book does not claim	7
1.9. A guide for the reader	8
2. Money and Coinage: Origins, Functions, and Institutions	9
2.1. Defining money: Functions, forms, and foundations	10
2.2. Why do we need money?	10
2.3. How to choose good money	12
2.4. Why gold and silver?	16
2.5. Representative and non-physical money	17
2.6. How coins standardized money	20
2.7. Does money need a central authority?	26
2.8. Credit: A matter of trust and information	29
2.9. The main points and implications	31
3. Supply and Demand for Money in Pre-Industrial Societies	35
3.1. Conceptual foundations of commodity-money supply and demand	36
3.2. Mechanisms of money supply	36
3.3. Drivers of money demand in pre-industrial economies	44
3.4. Connecting supply and demand: The equation of exchange	51
3.5. Summary of monetary supply and demand dynamics	54
4. Monetization and Coinage in the Ancient World	57
4.1. Framing monetization in Antiquity	58
4.2. Ancient Greece	59
4.3. Ptolemaic coinage and the closed currency system	72
4.4. The Roman Republic and Empire	76
4.5. Coinage and monetization in the Byzantine Empire (AD 395-1030)	96
4.6. Monetization in Antiquity: An Overview	101

5. Monetization and Coinage in Medieval Europe	105
5.1. The foundations of medieval monetization	106
5.2. From imperial integration to fragmented economies	106
5.3. The commercial revival and rising money demand	121
5.4. Who controlled minting and under what rules?	142
5.5. Monetization and fiscal transformation	146
5.6. From low monetization to an emerging monetary economy	148
6. The Economic Logic of Coinage Debasement: Monetary Adjustment, Fiscal Gain, and Long-Term Consequences	151
6.1. Mechanisms and motives of debasement	152
6.2. Monetary motives for debasements	153
6.3. Fiscal motives for debasement	162
6.4. Structural drivers of inflation and deflation	177
6.5. Debasement in theory and practice: A synthesis	180
7. Debasement and Inflation in the Ancient World	183
7.1. Applying the theory of debasement to the ancient world	184
7.2. Athenian emergency coinage in the Peloponnesian War	185
7.3. Hellenistic inflation after Alexander's death	186
7.4. Monetary restructuring during the wars with Carthage	188
7.5. Later Hellenistic and Ptolemaic debasement	190
7.6. The Great Debasement of the Roman Empire	192
7.7. Lessons about monetary stability from antiquity	200
8. Debasement and Inflation in the Middle Ages and Early Modern Period	203
8.1. Debasement as a fiscal and monetary instrument	204
8.2. Chronic debasement in the late Byzantine Empire (1030–1453)	206
8.3. Imitations and debasement of English sterling, c. 1279–1350	209
8.4. Emergency debasements in late medieval France (1295–1450)	212
8.5. The Great Silver Famine (c. 1380–1465)	216
8.6. The inflow of New World silver and the Price Revolution	223
8.7. Spain and the Dutch disease mechanism	230
8.8. Chronic debasement and the Kipper- and Wipper crisis	232
8.9. Lessons from medieval and early modern debasement	236
9. Taxing Money Holdings: Periodic Recoinage in the Middle Ages	239
9.1. Periodic recoinage as a monetary regime	240
9.2. A theoretical framework for periodic recoinage	241
9.3. Bracteates and periodic recoinage	249
9.4. The geographical scope and diffusion of periodic recoinage	253
9.5. Effectiveness, distributional effects, and inflation	257
9.6. Why periodic recoinage broke down	264
9.7. Conclusions	266

Volume 2: Chapters 10–16

10. The Small-Change Problem and Token Money	269
10.1. A strategy to prevent small change shortages	270
10.2. Modelling the dynamics of small change	272
10.3. Ancient development of small change	275
10.4. Medieval approaches to small change	287
10.5. The role of trade tokens in the early modern period	296
10.6. Understanding small change shortages: Causes and solutions	305
11. Credit, Banking, and Monetary Expansion	307
11.1. Introduction: credit, banking, and monetary expansion	308
11.2. The nature of credit and financial institutions	309
11.3. How credit instruments expand the money supply	312
11.4. Credit and banking in the Antiquity	320
11.5. Credit and banking in the Middle Ages	327
11.6. Banking and credit in the early modern period	340
11.7. From credit money to representative money	344
11.8. Credit, banking, and the evolution of monetary systems	345
12. Banknotes and the Logic of Representative Money	347
12.1. Trust and convertibility rather than intrinsic value	348
12.2. Pros and cons of representative and commodity money	348
12.3. Representative money in China	352
12.4. The rise of banknotes in early modern Europe	356
12.5. Private banknotes in the nineteenth century	367
12.6. Late modern representative money	378
12.7. The logic and institutions of representative money	389
13. Bimetallism and the Problem of Relative Valuation	391
13.1. A historical and conceptual entry point of bimetallism	392
13.2. The mechanics of bimetallic systems with full-bodied coinage	393
13.3. Ancient bimetallic systems	400
13.4. Early modern bimetallic systems	408
13.5. Summary and implications	424
14. Money without Borders: The History of International Currencies	427
14.1. Why some currencies cross borders	428
14.2. The essential features of an international currency	428
14.3. International currencies in the ancient world	431
14.4. The solidus-dinar rivalry in the Mediterranean and the Near East	439
14.5. Stable currencies in medieval Europe	442
14.6. The competition of early modern currencies	447
14.7. The age of dominant currencies	453
14.8. Lessons from monetary dominance	461

15. Fiat Money, Expectations, and Hyperinflation	465
15.1. The emergence of fiat money	466
15.2. What is fiat money?	467
15.3. Monetary policy under fiat money	470
15.4. Early fiat experiments	475
15.5. The post-1971 fiat regime	481
15.6. Hyperinflation and the collapse of monetary credibility	483
15.7. Fiat money: flexibility, credibility, and instability	491
16. Analytical Summary:	
Trust, Transaction Costs, and the Evolution of Monetary Systems	493
16.1. Trust and lower transaction costs	494
16.2. From material value to institutional credibility	496
16.3. Markets and authority	498
16.4. Supply and demand for money in pre-industrial economies	499
16.5. Fiscal pressure, debasement, and monetary manipulation	501
16.6. Denominations and small change	504
16.7. Credit, banking, and representative money	505
16.8. Bimetallism and the problem of relative valuation	507
16.9. International currencies and network effects	507
16.10. Fiat money and the final abstraction of value	508
16.11. General lessons from monetary history	509
Abbreviations	511
Glossary	512
References	522
Index	548
 Maps	
Map 4.1. Major city-states, mints, and mines in the ancient Greek world.	60
Map 4.2. The Macedonian Empire 336-323 BC and Kingdoms of the Diadochi in the third century BC.	65
Map 4.3. Roman Empire in AD 117 at its greatest territorial extent.	89
Map 4.4. Mints in the Byzantine empire, sixth to ninth centuries.	100
Map 5.1. Major European silver mining regions, AD 400-1550.	110
Map 5.2. Carolingian mints under Pepin the Short, Charlemagne, and Louis the Pious (751-840) and under their successors in the later Carolingian period 840-876.	117
Map 5.3. Regional monetary standards in the German lands, c. 1140-1300.	135
Map 9.1. Short-lived and long-lived coinage systems in Europe 1140-1270.	254
Map 11.1. Major commercial and financial centres in late medieval Europe (c. 1200-1500).	338

Figures / Diagrams

Figure 3.1.	Minting and melting points of coins under free minting.	39
Figure 4.1.	Lead production over the past 5,000 years.	87
Figure 4.2.	Copper production over the past 5,000 years.	87
Figure 4.3.	Mediterranean shipwrecks, eighth century BC to fifteenth century AD, number of shipwrecks.	91
Figure 7.1.	Development of barley prices 400–50 BC, shekels per 1000 litres.	187
Figure 7.2.	Debasement of the <i>denarius</i> AD 148–241, weight in g and percent.	195
Figure 7.3.	Debasement of <i>antoninianus</i> AD 215–274, weight in g and percent.	197
Figure 8.1.	Mint equivalent, mint price and fineness of <i>gros de florette</i> (20 deniers) in the mint Romans 1418–1422, <i>livres tournois</i> (logarithmic scale) and percent.	214
Figure 8.2.	Minting volume and revenues at Dauphiné mints in France 1404–1422, <i>marcs</i> of pure silver.	215
Figure 8.3.	Silver minting in England 1246–1595, kilograms of pure silver.	217
Figure 8.4.	Silver content of one-mark pence (grams) and index of silver prices (1500=100) (logarithmic scale).	221
Figure 8.5.	Consumer price indices (1501–1510=100) in Brabant, England and Spain 1400–1650.	223
Figure 8.6.	Silver production in Europe 1470–1550, annual average tons silver per five-year period.	224
Figure 8.7.	Silver production in the Potosí (Upper Peru) and Zacatecas (Mexico) mines in Latin America, and silver imports to Seville (Spain) 1521–1660 average tons per year.	227
Figure 8.8.	Prices of rye, barley and oat in Augsburg 1618–1624, pennies per bushel.	235
Figure 9.1.	Difference between traditional coin technology and bracteate technology.	250
Figure 10.1.	Relationship between production costs and denomination size in a proportional coinage system.	271
Figure 10.2.	Minting and melting points for coins under free minting.	272
Figure 10.3.	Minting and melting points for large and small coins.	273
Figure 10.4.	Moving the minting point of small coins to the right.	275
Figure 10.5.	Historical solutions to the problem of small change (500 BC–AD 2000).	295
Figure 12.1.	Volume of government and private bank notes in Sweden 1830–1910, million kronor and percent.	376
Figure 13.1.	Stylized bimetallic zones.	396
Figure 13.2.	Premium on Swedish silver coins in terms of <i>daler kopparmynt</i> 1620–1780, percent.	412
Figure 14.1.	The evolution of international currencies, 500 BC–AD 2025.	463
Figure 15.1.	Historical evolution from commodity to fiat money.	467
Figure 15.2.	Real money demand and expected inflation (Cagan curve).	485
Figure 15.3.	The hyperinflation mechanism.	486
Figure 15.4.	Exchange rate of the gold mark in paper marks, 1917–1923.	487
Figure 16.1.	From material value to institutional credibility in monetary history.	496

Tables

Table 2.1.	Number of exchange rates and prices without and with money.	12
Table 3.1.	Comparison of free minting and government-controlled minting systems.	43
Table 4.1.	Comparison of major Greek weight standards, main period of use.	63
Table 4.2.	Relative values of Augustan coins.	81
Table 5.1.	European silver mines, 400–1100.	111
Table 5.2.	European silver mines, 1150–1350.	123
Table 5.3.	European silver mines, 1350–1550.	125
Table 5.4.	Urbanization in Europe 800–1600, thousands of inhabitants, number of towns and percent.	128
Table 5.5.	Number of inhabitants in some European towns 800–1600, thousands of inhabitants.	130
Table 6.1.	A simplified example of a hypothetical emergency debasement cycle for a groschen valued at 12 pennies, number of coins and percentages obtainable from one mark of pure silver.	167
Table 6.2.	Analytical box of fiscal debasement.	171
Table 6.3.	Examples of hidden debasement through imitative coins.	174
Table 6.4.	Typology of debasement mechanisms in premodern coinage.	179
Table 7.1.	Weight reduction in aureus.	198
Table 9.1.	Periodic recoinage and debasement as a monetary tax.	243
Table 9.2.	Institutional, economic, and political conditions for periodic recoinage.	245
Table 9.3.	The composition of English coin hoards from 979–1125. Number of coin hoards, number of coins and shares.	258
Table 9.4.	The composition of German coin hoards in Thuringia from 1156–1325 and in Upper Lusatia from 1200–1300.	260
Table 11.1.	Financial hierarchy of sources of debt and equity.	312
Table 11.2.	Similarities and differences between IOUs, promissory notes, and bills of exchange.	318
Table 11.3.	Example of the money multiplier (EUR).	319
Table 12.1.	Pros and cons of representative money.	349
Table 13.1.	Mint ratios in the Roman Empire.	402
Table 13.2.	Key French mint ratios 1726–1873.	420
Table 14.1.	Contemporary challengers to the US dollar evaluated against international currency criteria.	460
Table 14.2.	Dominant international currencies: Theoretical criteria fulfilled and reasons for decline.	462
Table 15.1.	Comparison of fiat, representative and commodity money.	470
Table 15.2.	Monetary policy instruments under fiat money.	472
Table 16.1.	Monetary systems compared.	497

Foreword

This book has taken five years to write. During that time, it has grown from a set of separate ideas about money, coinage, and monetary institutions into a broader attempt to analyse monetary history from an economic perspective. The result is not a complete chronological history of money, but a thematic study of recurrent monetary problems: monetization, debasement, token money, credit, representative money, bimetallism, international currencies, fiat money, and monetary credibility.

I have benefited greatly from discussions with colleagues and friends during the writing process. I am especially grateful to Andreas Westermarck and Rodney Edvinsson, who read parts of the manuscript and spent many hours discussing monetary theory, historical interpretation, and the economic mechanisms behind monetary systems. Their comments and questions helped me sharpen the arguments and improve the structure of the book. Finally, I am also thankful to Janken Myrdal for insightful comments and Daniel Golabiewski, who was responsible for the book's layout and design.

I gratefully acknowledge financial support from the Sven Svensson Foundation for Numismatics, the Gunnar Ekström Foundation, and the Sven and Dagmar Salén Foundation. Their generous support made it possible to devote the necessary time to research, writing, and preparation of the manuscript, and helped cover the layout and printing costs of the book.

I am also grateful to the historians, archaeologists, numismatists, and economists whose work has made this book possible. Monetary history is an interdisciplinary field. Coins, hoards, mint records, price data, written sources, and institutional histories all provide essential evidence. My aim has been to bring these materials together through an economic lens, while remaining aware that money was never only an economic object. It was also political, legal, social, and symbolic.

The remaining errors and interpretations are, of course, my own.

Roger Svensson
Stockholm, June 2026

1

Introduction: An Economic Perspective on Monetary History

Roger Svensson

The Research Institute of Industrial Economics (IFN)

Abstract

This introductory chapter explains the purpose, perspective, and organization of *Economic Perspectives on Monetary History*. The book approaches monetary history from an economic perspective, but not in opposition to historical, archaeological, anthropological, or numismatic approaches. On the contrary, these fields provide the empirical evidence on which economic interpretation must rest: coins, hoards, minting techniques, inscriptions, weights, metal content, circulation patterns, written sources, and institutional contexts. The aim is to add a further analytical layer by asking what economic problems monetary systems solved, why particular monetary forms emerged, why some monetary arrangements remained stable while others failed, and how similar monetary problems reappeared across different periods.

The chapter introduces the book's central theme: monetary history can be understood as a repeated search for ways to reduce transaction costs while preserving trust. Money is analysed by function rather than by material form. Commodity money, coinage, token money, credit instruments, representative money, international currencies, and fiat money differed in substance and institutional setting, but all depended on general acceptability and credibility. As money became less dependent on intrinsic value, it became more dependent on institutions.

The chapter also explains why the book is organized thematically rather than chronologically. It does not attempt to provide a complete history of money from antiquity to the present. Instead, each chapter analyses a recurrent problem in monetary history—monetization, debasement, small change, credit, representative money, bimetallism, international currencies, fiat money, and hyperinflation—using selected historical cases.

1.1. Why an economic perspective on monetary history?

Monetary history is often studied through material and written sources: coins, hoards, weights, inscriptions, minting techniques, metal content, circulation patterns, and documentary evidence. These sources are indispensable. Historical, archaeological, anthropological, and numismatic research shows what was produced, who issued it, where it circulated, how it was stored or hoarded, what it weighed, how it was made, how coins can be identified and classified, and how monetary authority was represented. Without such evidence, no serious economic interpretation of monetary history would be possible. The purpose of this book is therefore not to replace these perspectives, but to complement them with an economic layer of analysis.

The economic perspective asks how monetary systems worked as institutions. Why did people accept a particular object or claim as money? What transaction costs did it reduce? Why did some monetary forms circulate widely while others remained local? Why did rulers debase coins? Why were small denominations so difficult to supply? Why did credit instruments and banknotes expand the effective money supply? Why did some currencies become international standards? Why do fiat currencies retain value despite having no intrinsic content or promise of redemption?

These questions are not separate from historical or numismatic evidence. They help interpret it. A hoard may indicate wealth, insecurity, savings behaviour, ritual practice, or weak circulation. A coin's portrait may express political authority, but it may also help users identify the issuer and trust the coin. A reduction in silver content may be a technical adjustment, a fiscal measure, or the beginning of monetary instability. An economic perspective therefore tries to connect monetary evidence to incentives, transaction costs, credibility, state capacity, market exchange, and institutional design.

The book's central claim is simple: money is an institution for reducing transaction costs while preserving trust. This claim does not explain every detail of monetary history, but it provides a guiding thread through the chapters that follow.

1.2. Money as function, not only form

Money is not best defined by what it is made of. It is defined by what it does. Economists usually distinguish four basic functions of money: medium of exchange, unit of account, store of value, and standard of deferred payment.¹ These functions are introduced here because they guide the whole book, but they are analysed more fully in Chapter 2.

The functional definition is especially useful in monetary history because many historical monies did not perform all four functions at once. A commodity might serve as a store of value and medium of exchange without becoming a general unit of account. Silver could function as a unit of account and store of value even when few coins circulated in everyday transactions. Credit could be denominated in money without requiring immediate physical payment. For this reason, the book treats money as a spectrum of monetary functions rather than as a single material object.

¹ For the four functions of money, see Jevons 1875, pp. 13–18.

This approach also makes it possible to compare very different forms of money. Cattle, grain, shells, copper, silver, gold, coins, tokens, bank deposits, bills of exchange, banknotes, and fiat currencies all became money in particular contexts. Their common feature was not material substance, but acceptability and function.

1.3. Transaction costs and trust

The central economic reason for using money is that it reduces transaction costs.² By transaction costs, this book means the time, fees, effort, risk, and information costs that must be incurred to undertake a transaction. In monetary history, such costs included finding trading partners, negotiating exchange ratios, verifying quality, weighing and assaying metal, transporting bulky commodities, detecting counterfeits, enforcing contracts, extending credit, and settling payments across distance and time.

This definition matters because many monetary innovations can be understood as attempts to reduce particular transaction costs. Commodity money reduced the difficulties of barter. Coinage reduced the need to weigh and assay metal. Token coins made small payments easier. Credit instruments and bank transfers reduced the need to move precious metal physically. Representative money made claims portable and standardized. International currencies reduced the costs of cross-border trade and finance. Fiat money increased flexibility by removing the metallic constraint.

But lower transaction costs were never enough. Money could perform its functions only when users trusted it. Trust could rest on intrinsic value, as with commodity money; on standardization and issuer credibility, as with coinage; on fiscal acceptance and limited issue, as with token money; on legal enforceability and reputation, as with credit instruments; on convertibility, as with representative money; or on monetary and fiscal credibility, as with fiat money. The long-run history of money can therefore be read as a movement from material credibility toward institutional credibility.

This movement created a persistent trade-off. Monetary systems became more convenient and elastic, but also more dependent on rules, enforcement, and expectations. The more abstract money became, the more important institutions became. This trade-off between lower transaction costs and the preservation of trust is one of the book's main themes.

1.4. Money, markets, and states

One of the oldest debates in monetary theory concerns whether money emerged from markets or from states. The commodity theory, associated above all with Carl Menger, emphasizes the spontaneous emergence of money from exchange. The state theory, classically formulated by Georg Friedrich Knapp, stresses law, taxation, and political authority. This book does not treat these theories as mutually exclusive.³

² Williamson 1985, pp. 18–22.

³ Menger 1892 and Knapp 1924.

The evidence suggests a hybrid interpretation. Money in its basic forms could emerge from decentralized exchange because people valued certain commodities in trade, storage, and social obligations. But durable and scalable monetary systems usually required authority. Coinage required standardization of weight and fineness; token money required limits on issue and fiscal acceptance; representative money required redemption rules and banking institutions; fiat money requires credible monetary and fiscal governance.

Markets created the demand for money because money lowered transaction costs. States and institutions made money more scalable by supplying standardization, enforcement, taxation, legal rules, and protection against fraud. Market exchange and state authority were therefore not substitutes. They repeatedly reinforced one another.

The same interaction between markets and states can be seen in military payments and taxation. States could distribute coins through military wages and collect them through taxes, but these practices did not by themselves create monetary demand from nothing. Soldiers accepted coins because they could use them to buy goods and services in markets. Taxpayers could pay in coin only if they could obtain coins by selling output or labour. Monetary wages and monetary taxation therefore presupposed a prior degree of labour division, market exchange, and monetization.⁴ Once that threshold had been reached, however, state payments and taxes could reinforce the process by increasing coin circulation and making money more central to everyday economic life.

1.5. Why the book is thematic rather than chronological

Most general histories of money are organized chronologically. They begin with early forms of exchange or ancient coinage, proceed through Greece and Rome, continue with medieval and early modern developments, including credit instruments, banknotes, and representative money, and end with central banking, paper money, or modern fiat currencies. Such narratives are useful, especially for readers who want a continuous historical overview.

This book follows a different structure. It does not claim to provide a complete history of money from antiquity to the present. Instead, it is organized around recurrent monetary problems. The reason is that many of the same problems reappeared across different periods and under different monetary and institutional forms.

Small-change shortages occurred in ancient, medieval, and early modern settings. Debasement appeared in Roman, Byzantine, medieval, and early modern coinage. Bimetallic valuation problems reappeared whenever authorities tried to maintain fixed ratios between metals. Representative money created flexibility but repeatedly raised questions of convertibility and over-issue. Fiat money removed the metallic anchor but intensified the problem of credibility. International currencies changed in material form, from silver coins to gold coins, sterling bills, and dollar assets, but their underlying requirements—liquidity, stability, trust, and network effects—remained similar.

⁴ Spufford 1988, p. 242.

A thematic structure makes it possible to compare such episodes analytically. Instead of asking only what happened next, the book asks why similar monetary problems arose, what mechanisms drove them, and why outcomes differed across societies. The historical cases are therefore selected because they illuminate particular monetary mechanisms especially well.

The advantage of this structure is that it brings together periods that are often treated separately. Ancient and medieval debasement can be compared; Roman banking and credit instruments can be compared with late medieval bills of exchange; medieval small-change shortages can be compared with modern token coinage; bimetallism can be analysed alongside international currency competition; and fiat money can be compared with earlier forms of fiscal monetary manipulation. The aim is not to flatten historical differences, but to make comparison possible.

1.6. The organization of the book

The book begins with the foundations of money and coinage. Chapter 2 asks how money emerged and what it achieved. It discusses the functions of money, commodity money, precious metals, early accounting systems, coinage, the commodity and state theories of money, and the institutional requirements of credit.

Chapter 3 develops a theoretical framework for supply and demand for money in pre-industrial societies. It distinguishes free minting from government-controlled minting, analyses transaction, precautionary, and speculative motives for holding money, and explains how labour division, markets, taxation, and urbanization increased money demand.

Chapters 4 and 5 apply this framework historically. Chapter 4 analyses coinage and monetization in the ancient world, especially Greece, Rome, Ptolemaic Egypt, and Byzantium. Chapter 5 turns to the Middle Ages, where monetization was uneven, often low, and later revived through increased agricultural productivity, population growth, labour mobility, urbanization, commercialization, and changing fiscal systems.

Chapters 6 to 9 examine the fiscal manipulation of commodity money and the effects of bullion abundance and scarcity. Chapter 6 introduces the theoretical foundations, Chapter 7 applies them to antiquity and Byzantium, Chapter 8 to the medieval and early modern periods, and Chapter 9 analyses periodic recoinage as a form of monetary taxation.

Chapter 10 focuses on the small-change problem. It explains why low-denomination full-bodied coins were difficult to supply and why overvalued token money emerged as a solution. It also analyses the conditions under which token coins could circulate above intrinsic value without being over-issued.

Chapters 11 and 12 examine the expansion of money beyond metal. Chapter 11 analyses credit instruments, deposit banking, money multipliers, and bank-mediated payments. Chapter 12 turns to representative money, especially banknotes, and explains why convertibility, reserves, issuer credibility, and protection against counterfeiting were essential.

Chapter 13 examines bimetallism. It analyses why societies tried to use both gold and silver, how mint ratios interacted with market ratios, and why Gresham-type effects could transform bimetallic systems into de facto monometallism.

Chapter 14 analyses international currencies. It asks why some currencies crossed borders while others remained local. From the Athenian *tetradrachm* and Roman *denarius* to the Spanish dollar, British sterling, and US dollar, the chapter emphasizes volume, stability, liquidity, trust, financial infrastructure, political/economic backing, and network effects.

Chapter 15 examines fiat money and hyperinflation. It analyses the transition from commodity and representative money to fiat money, the role of central banks, expectations, fiscal dominance, and the conditions under which fiat money becomes unstable. Hyperinflation is treated as the extreme case of a collapse in monetary and fiscal credibility.

Chapter 16 concludes the book by synthesizing the analytical lessons from these chapters. It does not add a new historical case. Instead, it draws together the main themes: transaction costs, trust, monetization, fiscal pressure, denominations, credit, convertibility, international currency competition, fiat money, and the long-run movement from material to institutional credibility.

1.7. Coins as money and messages

Because this book is about monetary systems rather than coin catalogues, images are used selectively. Yet monetary objects matter. They show the reader how abstract monetary principles were embodied in physical form.

A Roman coin, for example, can illustrate several themes at once. It was a standardized piece of metal used in payments. Its portrait and inscription communicated the authority of the emperor. Its weight and fineness linked it to a monetary standard. Its circulation connected taxation, military pay, trade, and market exchange across a vast empire. The coin was therefore both an economic instrument and a political message (Picture 1.1).



Picture 1.1. *Denarius* of Emperor Trajan (AD 98–117), Rome mint, c. AD 112–113. The portrait identified the issuing authority, while the reverse commemorated the Via Traiana (Trajan's road from Beneventum to Brundisium), illustrating how Roman coinage combined monetary standardization with imperial communication. Legend: **IMP TRAIANO AVG GER DAC P M TR P COS VI P P) (S•P•Q•R•OPTIMO PRINCIPI, VIA TRAIANA**. 3.3 g and 19 mm.

Source: www.cngcoins.com.



Picture 1.2. Bracteate issued by Abbey Siegfried (1180–1200), Hersfeld mint. The crozier and mitre identify the issuer as an ecclesiastical authority. Bracteate technology reduced minting costs, while the large, thin flan allowed a visually distinctive design, which made it easier to distinguish current valid issues from older types in a system of periodic recoinage. Legend: **ISIGEFRIDVS AAB ASIGERRIDVSAAR.** 0.56 g and 37 mm. Photo: Roger Svensson.

A medieval bracteate illustrates a different monetary world. Its thin fabric reduced minting costs, while its large diameter and broad flan allowed substantial variation in motifs (Picture 1.2). In regions with periodic recoinage, such coins could be part of a fiscal system in which old coins were recalled and exchanged for new ones at a fee. The bracteate therefore points to a monetary logic very different from that of Roman imperial coinage: local circulation, low production costs, fiscal control through renewal, and visual differentiation between valid and invalid issues. The large flan made it easier for users to distinguish newly issued, valid coins from older types that had been declared invalid.

A banknote or bill of exchange would illustrate yet another stage. Here the monetary object no longer derived value from metal content. Its value rested on a promise to redeem, an issuer, a legal framework, or a network of merchants and banks. Such objects make visible the long-run movement from money as material value to money as credible claim.

The pictures in the book should therefore not be seen merely as illustrations. They are evidence. They show how monetary systems combined material properties, institutional guarantees, political authority, and public trust.

1.8. What this book does not claim

The scope of the book is deliberately limited. It is not a complete global history of money. It does not cover every region, every coinage system, every banking institution, or every monetary crisis. The empirical focus is mainly on the Western world, especially Europe and, for the modern period, North America. This reflects both the historical development of the monetary systems analysed here and my own familiarity with these coinage traditions. China is included selectively, above all in Chapter 12, because its early experiments with paper and representative money provide an important comparative case. Many important cases are treated briefly or not at all. The purpose is not encyclopaedic coverage.

Nor is the book a numismatic catalogue. It does not classify coins primarily by type, ruler, mint, date, or rarity, although such information is often essential for the historical analysis. The book uses numismatic evidence to ask economic questions about monetary functions, transaction costs, circulation, trust, seigniorage, and institutional credibility.

The book also does not claim that economics alone can explain monetary history. Political legitimacy, religion, social hierarchy, warfare, culture, technology, and symbolic meaning all mattered. Coins and banknotes were never only economic instruments. But they were always economic instruments as well. Ignoring that dimension risks misunderstanding why people accepted money, why issuers manipulated it, and why monetary systems sometimes collapsed.

The argument is therefore not reductionist. It is integrative. The book asks what can be learned when monetary evidence is analysed through economic concepts while remaining grounded in historical and numismatic detail.

1.9. A guide for the reader

Readers will approach this book with different backgrounds. Economists may find unfamiliar coins, hoards, and institutions. Historians and archaeologists may find familiar evidence interpreted through incentives, transaction costs, and monetary theory. Numismatists may recognize the objects but encounter a different set of questions about why those objects circulated, disappeared, or changed in value. Collectors and interested readers may find that coins become more intelligible when placed within the monetary systems that gave them meaning.

Chapters 2 and 3 are fundamental for all readers, irrespective of background. Chapter 2 defines money by its functions and explains why different objects and claims could perform monetary roles. Chapter 3 develops the book's basic analytical framework for money supply, money demand, monetization, transaction motives, precautionary demand, and the relation between markets and monetary taxation. Readers who want to follow the whole argument should therefore begin with these two chapters.

After that, the book can be read either in sequence or selectively. Readers interested in ancient monetization may continue with Chapter 4. Readers interested in medieval money may turn to Chapters 5, 9, and 10. Readers interested in debasement and fiscal manipulation may focus on Chapters 6–8. Readers interested in banking and paper money may read Chapters 11 and 12. Readers interested in bimetallism and international currencies may turn to Chapters 13 and 14. Readers interested in modern fiat money may focus on Chapter 15. The thematic structure allows such selective reading, while the common analytical thread holds the book together.

That thread is the relation between trust and transaction costs. Money made exchange easier, but only when people trusted it. Every monetary system therefore had to solve two problems at once: how to make money useful, and how to make it credible. The history of money is the history of societies solving these problems, failing to solve them, and trying again in new forms.

16

Analytical Summary: Trust, Transaction Costs, and the Evolution of Monetary Systems

Abstract

This final chapter synthesizes the main analytical arguments of *Economic Perspectives on Monetary History*. The book has approached monetary history thematically rather than chronologically, using selected historical cases to analyse recurrent monetary problems. Its central claim is that money is an institution for reducing transaction costs while preserving trust. Across history, monetary systems have differed in material form—commodity money, coinage, token money, credit instruments, representative money, bimetallic standards, international currencies, and fiat money—but they have faced similar economic problems: securing general acceptability, providing sufficient elasticity, preventing over-issuance, and maintaining credibility.

The chapter emphasizes that monetary development was neither linear nor irreversible. Commodity money, coinage, credit, token money, representative money, and fiat money often coexisted and served different transaction niches. Durable monetary systems required both market demand and institutional support: users demanded money because it lowered the costs of exchange, valuation, saving, and credit, while authorities and institutions supplied standardization, legal enforcement, fiscal backing, convertibility, or policy credibility. The main conclusion is that monetary history represents a gradual shift from material credibility to institutional credibility. Commodity money relied on intrinsic value; coinage added standardization; token and credit money required trust, law, and fiscal support; representative money rested on convertibility; and fiat money depends on credible monetary and fiscal institutions. Monetary history is therefore best understood as a recurring trade-off between elasticity and discipline.

16.1. Trust and lower transaction costs

An economic perspective

This book approaches monetary history from an economic perspective, but not in opposition to historical, archaeological, or numismatic approaches. On the contrary, these fields provide evidence on which any serious economic interpretation must rest: coins, hoards, weights, minting techniques, iconography, metal content, circulation patterns, written sources, and institutional contexts. The aim is to add another layer of analysis: to ask how monetary objects and institutions performed the four basic functions of money—as a medium of exchange, unit of account, store of value, and standard of deferred payment—and why particular monetary forms emerged, proved stable, or failed in different historical settings.¹

This perspective is therefore complementary rather than substitutive. It does not make coin images, hoards, inscriptions, mint organization, or archaeological contexts less important. Rather, it links such evidence to broader questions about transaction costs, market exchange, fiscal capacity, institutional credibility, and monetary stability.

A thematic structure

For the same reason, the book has been organized thematically rather than chronologically. It does not claim to provide a complete history of money from antiquity to the present. Instead, each chapter has examined a recurrent monetary problem or institution using economic theory and selected historical examples:

- The emergence of money and coinage (Ch. 2);
- Monetization, money supply, and money demand (Ch. 3–5);
- Debasement of commodity money and bullion abundance/scarcity (Ch. 6–8);
- Periodic recoinage as monetary taxation (Ch. 9);
- Token money and the small-change problem (Ch. 10);
- Credit instruments, banking, and representative money (Ch. 11–12);
- Bimetallism and international currencies (Ch. 13–14); and
- Fiat money, expectations, and hyperinflation (Ch. 15).

Historical empirical cases have been selected because they illuminate these problems particularly well. Ancient Greece, Rome, Byzantium, medieval Europe, early modern England, Spain, and Sweden, nineteenth-century France and the United States, and modern fiat regimes are therefore not treated as steps in a continuous chronological narrative, but as empirical cases through which more general monetary mechanisms can be analysed.

This thematic approach is useful because many monetary problems recur across time. Shortages of small change, fiscal debasement, over-issuance of token coins, failures of convertibility, bimetallic arbitrage, monetary taxation, international currency dominance, and

¹ For the four functions of money, see Jevons 1875, pp. 13–18.

inflationary finance are not confined to one period. They reappear under different institutional forms. A thematic structure makes it possible to compare these episodes analytically and to ask why similar problems produced different outcomes in different societies.

Transaction costs and monetary functions

The central analytical argument running through the book is that money is an institution for reducing transaction costs.² By transaction costs, we mean the time, fees, effort, risk, and information costs that must be incurred to undertake a transaction.³ Money reduces these costs by providing a generally accepted medium of exchange, a unit of account, a store of value, and, in more developed systems, a standard of deferred payment.

The material form of money has changed repeatedly, but its economic logic has remained remarkably stable. Whether money took the form of commodity money, coinage, credit instruments, banknotes, international currencies, or fiat money, its value depended on its ability to make exchange, valuation, saving, and credit cheaper and more reliable. Coinage reduced the need to weigh and assay bullion; token money made small payments easier; credit instruments and banknotes reduced the need to move precious metal physically; and international currencies lowered the costs of cross-border trade and finance.

Money as an institution

This perspective helps to avoid two common misunderstandings. The first is to define money primarily by its material form. Money is not simply metal, coin, paper, or digital entries. It is a socially accepted and institutionally supported instrument that performs monetary functions. The second misunderstanding is to view monetary history as a smooth linear progression from primitive barter to sophisticated modern money. In reality, monetary systems advanced, retreated, fragmented, and overlapped. Commodity money, coinage, credit instruments, token money, representative money, and fiat money often coexisted, while different forms of money served different transaction niches.

A long-run synthesis therefore requires an institutional rather than purely material definition of money. Commodity money relied mainly on intrinsic value; coinage added standardization; token money required fiscal and legal support; credit instruments depended on enforceable promises; representative money rested on convertibility; and fiat money depends on institutional credibility and expectations.

The repeated pattern is clear. Monetary innovation increased convenience, liquidity, and elasticity, but it also increased the need for trust. The more abstract money became, the less it relied on intrinsic value and the more it depended on institutions, fiscal capacity, legal enforcement, and policy credibility. This is the main analytical thread that connects the chapters of this book.

2 Williamson 1985, pp. 18–22.

3 Examples include searching for trading partners, negotiating exchange ratios, verifying quality, weighing and assaying metal, transporting bulky commodities, detecting counterfeits, enforcing contracts, extending credit, and settling payments across time and space.

16.2. From material value to institutional credibility

The long-run movement in monetary history can be summarized as a movement from material credibility to institutional credibility. Commodity money carried value in itself. Gold, silver, grain, cattle, copper, shells, and other commodities could function as money because users recognized their value independently of a formal issuer. Yet such money had serious limitations. Some commodities were bulky, perishable, difficult to divide, or costly to transport. Precious metals solved many of these problems because they were durable, divisible, portable, scarce, and widely valued.

Coinage represented a further step. A coin was not merely a piece of metal. It was standardized metal with respect to weight and fineness certified by an issuing authority. Its stamp reduced the cost of weighing and testing. The coin therefore acquired a premium over bullion because it saved users time and risk. This premium was the economic foundation of seigniorage. Yet coinage also introduced a new problem: users had to trust the issuer not to reduce weight or fineness excessively.

Later forms of money pushed abstraction further. Token coins had face values above intrinsic values and therefore depended on legal tender rules, tax acceptance, and restrictions on issue. Credit instruments such as promissory notes and bills of exchange depended on enforceability and reputation. Banknotes depended on redemption promises and reserve backing. Fiat money depends on expectations about future policy. In each step, the physical content of money became less important, while institutional credibility became more important.

Figure 16.1. From material value to institutional credibility in monetary history.

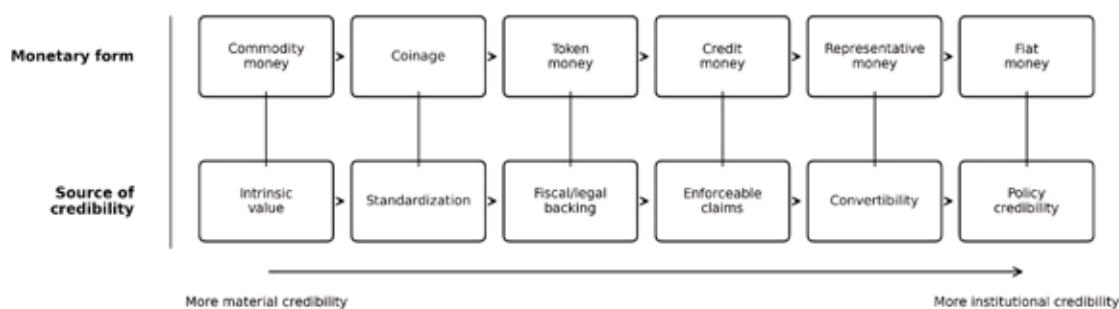


Figure 16.1 should not be read as a strict chronology. Several forms overlapped for long periods. Roman coinage coexisted with credit instruments. Medieval silver coinage coexisted with bills of exchange. Nineteenth-century gold coins coexisted with banknotes and deposits. Modern fiat currencies coexist with bank money and international reserve assets. The sequence instead captures a logical progression in the sources of monetary credibility.

Table 16.1 highlights the central trade-off of monetary history. As monetary forms became more flexible, they required stronger institutions. Commodity money was disciplined by scarcity but often inefficient. Fiat money is highly flexible but depends entirely on credibility. Between these poles lie the many historical compromises analysed in this book.

Table 16.1. Monetary systems compared.

Monetary form	Source of value	Main advantage	Main institutional requirement	Typical risk or failure mode
Commodity money	Intrinsic value of the commodity.	Broad acceptability where the commodity is valued.	Social recognition and repeated use.	Bulky, perishable, uneven quality, limited divisibility.
Weighed bullion	Metal content.	Useful for large payments and long-distance trade.	Weights, scales, assaying, trusted measures.	High verification costs and slow transactions.
Coinage	Standardized metal content certified by an authority.	Lower transaction costs in payment and valuation.	Control of weight, fineness, design, and counterfeiting.	Debasement, clipping, wear, shortage of denominations.
Token money	Face value above intrinsic value.	Efficient supply of small change.	Monopoly of issue, tax acceptance, legal tender status, restrained quantity.	Counterfeiting, over-issuance, depreciation.
Credit money	Transferable claims on future payment.	Expands liquidity without new metal.	Trust, reputation, legal enforceability, networks.	Default, limited circulation, loss of confidence.
Bank deposits and fractional reserves	Claims on banks.	Multiplies the effective money supply.	Prudential reserves, confidence, payment infrastructure.	Bank runs, liquidity crises, excessive credit expansion.
Representative money	Redeemable claims on commodity money.	Elastic and portable paper money.	Convertibility, reserves, reputation, credible issuer.	Suspension of convertibility, over-issuance, bank runs.
Bimetallism	Legal link between two full-bodied metals.	Wider monetary base and multiple transaction niches.	Credible mint ratio and free or managed coinage.	Gresham effects, arbitrage, de facto monometallism.
International currency	Network acceptance across borders.	Lowers transaction costs in trade, reserves, and finance.	Volume, stability, liquidity, trust, financial infrastructure, and political/economic backing.	Debasement, fiscal weakness, political decline, loss of trust.
Fiat money	Institutional credibility and expectations.	Maximum monetary flexibility.	Credible central bank, sustainable fiscal policy, anchored expectations.	Inflation, fiscal dominance, hyperinflation, currency substitution.

16.3. Markets and authority

Commodity theory and state theory

A recurring question in monetary history is whether money arose from markets or from states. This question is often framed as a contrast between the commodity theory of money, associated above all with Carl Menger, and the state theory of money, classically formulated by Georg Friedrich Knapp.⁴ The commodity theory emphasizes the spontaneous emergence of money from exchange, as market participants gradually converge on the most saleable commodities. The state theory, by contrast, stresses legal authority, taxation, and the power of the state to define what counts as money.

The evidence presented in this book does not support a simple either/or answer. Money in its basic forms clearly predates coinage, formal taxation, and strong states. Cattle, grain, shells, copper, silver, gold, and other commodities functioned as money because people found them useful in exchange, storage, and valuation. This supports the commodity-theory insight that money could arise from decentralized exchange.

Yet scalable and durable monetary systems required authority. Standardized coinage depended on an issuer capable of guaranteeing weight and fineness. Token money depended on legal and fiscal backing. Representative money depended on redemption rules and banking institutions. Fiat money depends on monetary and fiscal credibility. Even when money originated in market exchange, advanced monetary systems required political, legal, and administrative support.

The strongest conclusion is therefore hybrid. Money emerged because market participants demanded a means of lowering transaction costs. But the most successful monetary systems became institutionalized because authorities could standardize, regulate, tax, enforce contracts, and punish fraud. Neither the commodity theory nor the state theory alone explains the full historical record.

Labour division and market exchange before monetary taxation

This hybrid interpretation also clarifies the role of soldiers and taxes. States often distributed coins through military pay and collected them through taxation. Yet these channels should not be confused with the underlying origin of monetary demand. A government can pay soldiers and other employees in coin only if they can use those coins to buy food, clothing, housing, and services in markets. If local markets are weak or if most goods are supplied through household production, obligation, or redistribution in kind, coin wages become less useful than direct payments in grain, livestock, land, or provisions. Soldiers accepted coins because coins had purchasing power in markets; their demand for coins was therefore derived from the market demand for money.

The same logic applies to taxation. Peasants and other taxpayers could pay taxes in coin only if they had access to markets where they could sell part of their output or labour in exchange for coins. This required a prior degree of labour division and market exchange.

4 Menger 1892 and Knapp 1924.

In a largely self-sufficient agrarian economy, where households produced mainly for their own consumption and rents or dues were paid in kind, monetary taxation imposed high transaction costs and could be difficult to enforce. Monetary taxes therefore presupposed that enough people were already participating in markets, producing surpluses, and obtaining coin through exchange.⁵

State finance and market exchange thus reinforced one another, but the relation was not one-directional. Markets created the initial demand for money by making coins useful in transactions. States supplied standardization, legal authority, and fiscal circulation. Once monetary wages and taxes became feasible, they could deepen monetization by increasing coin circulation and encouraging further market participation. Monetary taxation and coin salaries were therefore not the starting point of money, but part of a cumulative process in which markets and states strengthened one another.

16.4. Supply and demand for money in pre-industrial economies

Supply was not enough

A second major conclusion of the book is that monetary history must be analysed through both money supply and money demand. Many historical explanations focus on supply: mines, mint output, war booty, debasement, paper issue, or central-bank policy. Supply mattered greatly, but it did not automatically create monetization. Coins, notes, or credit instruments became money only when households, merchants, soldiers, tax collectors, and creditors were willing to accept them.

On the supply side, pre-industrial money depended heavily on access to precious metals and the organization of minting. Under free minting, private individuals brought bullion to the mint and received coins. This created a self-regulating mechanism: minting and melting responded to the relation between coined and uncoined metal. Under government-controlled minting, the state determined coin output and introduced coins through expenditure, especially wages, military payments, and administrative spending. This gave rulers greater fiscal control but also increased the danger of over- or under-issue.

Historically, the balance between these systems varied. In antiquity, minting was usually closer to government-controlled production: Greek poleis, Rome, and Byzantium managed coinage and monetary standards mainly through public mints, while states often controlled or mobilized bullion through mines, tribute, taxes, conquest, or purchases in the market. Free minting is poorly documented for antiquity, although this does not exclude that authorities sometimes purchased private bullion for coinage. In medieval and early modern Europe, by contrast, free minting became more important in commercially developed regions, where merchants, miners, and bullion holders could bring metal to the mint at an official mint price. Yet even there, minting was never purely private: rulers still defined weight, fineness, denominations, legal validity, and mint charges.

⁵ Spufford 1988, p. 242.

Transactional demand and monetization

On the demand side, money became useful when economies became more specialized. Division of labour, urbanization, market exchange, long-distance trade, tax payments, wage labour, and credit all increased the need for a medium of exchange and unit of account, that is, transactional demand for money. Money demand was therefore not merely a matter of population or metal supply. It depended on the density of transactions and on the share of production that passed through markets.

This helps explain why coinage spread unevenly. The Greek poleis monetized rapidly after the invention of coinage because they already possessed markets, trade, specialized labour, weight systems, political institutions, and access to silver. Rome monetized later but eventually created an integrated imperial monetary system through conquest, taxation, trade, and urbanization. The Roman Empire was heavily urbanized by pre-industrial standards, and single coin finds are concentrated above all in towns and market centres where transactions were frequent.⁶ Coinage therefore did not merely reflect state payments; it was absorbed by an economy with substantial urban demand, specialized production, tax obligations, market exchange, long-distance trade, and frequent exchange.

The contrast with the early and high Middle Ages is striking. In many parts of western and northern Europe, monetization declined sharply after the fragmentation of Roman authority. Long-distance trade became riskier and more expensive as political protection weakened, infrastructure deteriorated, and transport costs remained high. Economic production therefore became more local. Households, estates, monasteries, and manors increasingly relied on local production, payments in kind or labour services, and personal obligations rather than frequent exchange through markets. Coin finds became sparse, urban life contracted, and silver was often immobilized in hoards, church treasures, liturgical objects, and elite stores of wealth rather than circulating in everyday transactions. In such conditions, the stock of precious metal was not the same thing as a circulating money supply. Money demand was limited because markets were thin, labour division was weak, towns were small, and most households remained tied to agrarian production.

The revival of monetization from the later Middle Ages was therefore not simply the result of more silver. It also reflected rising agrarian productivity, population growth, changing factor prices, increased labour mobility, weaker serfdom in some regions, greater occupational specialization, expanding towns, and denser exchange networks. These developments increased the demand for money because more people became specialized, sold output, bought goods and services, paid rents and taxes in coin, and participated in regional and long-distance trade. Monetization was thus both a cause and a consequence of broader economic development.

Precautionary demand and hoarding

Pre-industrial societies also generated a large precautionary demand for money. Households, merchants, monasteries, landlords, and rulers held coins or bullion not only for current payments, but also as protection against harvest failures, war, disease, theft, fire, political

⁶ Katsari 2008, pp. 242–66.

disorder, and sudden tax claims. Such precautionary balances were especially important because insurance markets were weak or absent, welfare services were limited, and secure banking facilities were unavailable to most people.

The consequence was frequent hoarding. Hoarding was rational for individuals facing uncertainty, but it reduced the active circulation of coins. Coins kept in hoards, church treasuries, or private strongboxes did not disappear physically, but they became less available for ordinary transactions. This lowered velocity and could intensify local coin shortages. Hoards are therefore ambiguous evidence: they show that coins or bullion existed and were valued, but they do not necessarily prove deep monetization. In some contexts, they may signal insecurity and low trust rather than a highly monetized economy.

Monetization was therefore not the same as the mere presence of coins. A region could have coins without deep monetization if they were used mainly for taxes, hoards, elite payments, church treasures, or long-distance trade. Conversely, a society could use money as a unit of account even where physical coins were scarce. True monetization meant that money penetrated everyday transactions, wages, rents, taxes, savings, credit, and interregional exchange.

16.5. Fiscal pressure, debasement, and monetary manipulation

The fiscal and monetary use of coinage forms one of the most persistent themes in monetary history. Coinage gave rulers not only a tool for reducing transaction costs but also a source of revenue. Seigniorage could be modest and sustainable when it reflected the value users placed on standardization. But it could also become a fiscal instrument during war, crisis, or weak public finance. Debasement was the classical method, but debasements did not all have the same purpose.

A useful distinction can be made between monetary debasement and fiscal debasement. Monetary debasement was used to adjust the coinage system to changed economic conditions. It could compensate for wear and tear, align domestic coins with foreign standards, reduce overvalued or undervalued denominations, or increase the supply of small and medium denominations when the existing coinage structure no longer met transactional demand. In such cases, debasement was not primarily a revenue device. It was a monetary adjustment intended to preserve circulation, improve denominations, or prevent coins from being melted, hoarded, or exported.

Fiscal debasement of commodity money

Fiscal debasement was a reduction in the precious-metal content of coins undertaken primarily to raise revenue for the issuing authority. The ruler reduced the silver or gold content of coins while attempting to maintain their nominal value. The fiscal gain arose only if the new coins continued, at least for a time, to circulate by tale—that is, by face value—rather than by weight. Under these conditions, the mint could strike more nominal coins from the same quantity of bullion. The difference between the face value of the new coinage and the cost

of bullion and production became seigniorage revenue for the ruler. Fiscal debasement was therefore a form of monetary taxation. Holders of money paid through the reduced intrinsic value of their coins and, once prices adjusted, through a loss of purchasing power.⁷

Emergency debasement was a significant, stepwise, and relatively rapid reduction in the precious-metal content of coins undertaken to meet an extraordinary fiscal need, usually war, invasion, or acute shortage of revenue. Its fiscal effect depended on the difference between the coin's nominal value and its reduced intrinsic value. The ruler gained only if the debased coins continued to circulate, at least temporarily, at or near their old face value.

Two conditions were therefore central. First, prices, wages, and exchange rates had to adjust with a delay.⁸ If users immediately expected the full inflationary effect of the debasement, the fiscal gain disappeared through higher prices and worse exchange rates. Second, coins had to circulate mainly by tale rather than by weight.⁹ As long as coins were accepted at face value, debasement opened an arbitrage opportunity for the mint and for informed agents. Experts who recognized the reduced silver content could bring bullion or old high-content coins to the mint, have them converted into a larger nominal number of new debased coins, and then spend those coins at face value before others fully adjusted prices or exchange rates. The profit came from the difference between the reduced intrinsic content of the new coins and their still-accepted nominal value. If users instead weighed coins or discounted them according to fineness, this arbitrage was recognized immediately and the fiscal advantage largely vanished.

Chronic fiscal debasement created a different problem. It was not necessarily a sign of immediate monetary collapse, and in many states it functioned for long periods as a routine instrument of public finance. It was most common in polities with intermediate fiscal capacity: states strong enough to operate mints, enforce legal tender rules, and organize repeated recoinages, but not strong enough to raise regular taxes or borrow on a sufficient scale.¹⁰ Very weak states often lacked the administrative capacity to sustain systematic debasement, while high-capacity states increasingly relied on taxation and public debt instead. Chronic debasement was therefore a rational fiscal strategy in states caught between weak taxation and functioning monetary administration. Its advantage was that it spread fiscal burdens gradually and often avoided the immediate resistance provoked by direct taxation. Its risk was cumulative: if repeated reductions in weight or fineness became expected, prices and exchange rates adjusted more quickly, good coins were hoarded or exported, and confidence in the monetary standard weakened. The consequences of chronic debasement therefore depended on state capacity, political constraints, bullion availability, expectations, and the availability of alternative currencies.

7 For example, if the silver content of a penny was reduced by one-third but the coin continued to pass as one penny, the same silver stock could produce more nominal pennies. These additional coins could then be spent by the government on soldiers, officials, suppliers, or creditors before prices and exchange rates had fully adjusted.

8 Sussman 1993, pp. 51–52.

9 Sussman 1993, p. 53.

10 Karaman et al. 2020, pp. 290–98.

Fiscal pressure beyond commodity money

The fiscal logic of debasement was not confined to full-bodied commodity money. The same tension reappeared in later monetary forms whenever authorities used money creation to compensate for weak taxation or limited borrowing capacity. Token coins could be over-issued. Representative money could be issued beyond credible reserves. Fiat money could be created to finance deficits. Hyperinflation represents the extreme modern version of this old problem: the fiscal temptation to create money when ordinary revenues are insufficient.

The continuity is therefore important. Whether through debased *denarii*, reduced medieval pennies, over-issued copper tokens, inconvertible banknotes, or fiat money creation, monetary instability often arose when fiscal needs overwhelmed monetary credibility. The instruments changed, but the underlying tension remained: money could serve the state as a source of revenue only as long as users continued to trust it.

Bullion scarcity and abundance

Another recurring theme in monetary history is the availability of precious metals. In commodity-based monetary systems, the supply of money depended ultimately on the production, acquisition, and circulation of gold and silver. Periods of bullion abundance—resulting from mining discoveries, conquest, the release of accumulated treasure, or favourable trade balances—often supported monetary expansion, increased coinage, and facilitated monetization. The massive release of Persian silver following Alexander's conquests, the silver booms of the Roman Republic and central Europe after c. 1150, and the influx of American silver after 1550 all illustrate how increased bullion supplies could expand the monetary base and support greater market exchange. Yet abundance alone was not sufficient. Its effects depended on existing levels of monetization, institutional arrangements, and the demand for money.

Bullion scarcity could be equally important. Declining mine output, bullion outflows through trade, warfare, or tribute payments, and the immobilization of precious metals in hoards, church treasures, and other stores of wealth reduced the quantity of metal available for coinage. At the same time, financial contraction often reduced the availability of credit instruments and bank money, further tightening liquidity. Such conditions could produce coin shortages, reduced liquidity, and pressure for monetary adjustments such as billon small change, or other substitutes for full-bodied coinage. The medieval bullion famine of c. 1380–1465 illustrates this mechanism particularly clearly. Monetary history therefore reflects a recurring interaction between bullion availability, monetary institutions, and the demand for money.

Periodic recoinage

Periodic recoinage was a monetary system in which old coins were periodically declared invalid and had to be exchanged for newly issued coins, usually at a rate that included an exchange fee or deduction. The system was normally transparent: the dates of recoinage, the exchange rules, and the fees were announced in advance. It was therefore a fiscal instrument based on the ruler's control over the legal validity of coins within a territory. Unlike ordinary debasement, the tax was not primarily hidden in a reduced metal content but collected openly through the compulsory exchange of old coins for new ones.

Periodic recoinage was especially suited to early and relatively localized monetary economies. It often appeared where rulers controlled local markets and newly founded towns, and where coin circulation was still territorially limited. Under such conditions, the ruler could define which coins were acceptable in payments, markets, tolls, rents, and taxes. The system could be effective when the money stock was limited, currency areas were small, currency competition was weak, and alternative coins were difficult to use.¹¹

The system became harder to maintain as monetization deepened and trade expanded. Where enforcement was weak, where foreign or old coins could circulate freely, or where long-distance trade required more stable currencies, people had stronger incentives to avoid periodic recoinage. Its success therefore depended on a specific historical setting: enough coin use to make monetary taxation profitable, but still enough territorial control to make compulsory exchange enforceable.

16.6. Denominations and small change

A well-functioning monetary system requires more than an adequate total quantity of money. It also requires the right denomination structure. Large payments, ordinary trade, and daily retail transactions impose different demands on money. Gold was convenient for high-value payments but unsuitable for small purchases. Copper was useful for small change but impractical for large payments. Silver often occupied the middle ground.

The problem of small change illustrates this point especially clearly. In full-bodied coinage systems, small denominations were costly to produce relative to face value. The fixed costs of minting made small coins disproportionately expensive. Under free minting, both bullion holders and minting authorities had weak incentives to produce small change: private agents preferred larger coins because they were cheaper to mint per unit of value, while minting authorities earned less seigniorage relative to production costs on small denominations. The result was recurrent small-change shortages.¹²

Historical societies responded in several ways. They cut coins into fractions. They used low-cost minting techniques such as bracteates.¹³ They debased small denominations. They introduced copper or bronze token coins. They allowed private or municipal trade tokens to circulate. The most successful solution was the standard formula: small change should be issued as overvalued token money on the authority's account, supplied in limited quantities, accepted for taxes or legally enforceable payments, and credibly linked to higher-value money through hard or soft convertibility.¹⁴

This solution appeared in partial form already in ancient Greece and Rome and later developed more fully in early modern and modern monetary systems. Its logic was simple but demanding. Small token coins could circulate above intrinsic value only if users trusted

¹¹ Svensson 2016, pp. 1114–16.

¹² Sargent and Velde 2002, pp. 29, 50–53.

¹³ Svensson and Westermarck 2025, pp. 314–15, 319–24.

¹⁴ Cipolla 1956, p. 27; Sargent and Velde 2002, pp. 5–7.

that supply would remain limited and that the issuer would accept them. Over-issuance destroyed that trust.

The broader lesson is that monetary efficiency depends on the composition of the money stock. Shortages of small change, absence of high-denomination money, or unstable exchange rates between denominations all raised transaction costs. Monetary systems therefore needed not only enough money, but suitable money.

16.7. Credit, banking, and representative money

Credit and transferable claims

Credit transformed monetary history by allowing the effective money supply to expand without a corresponding increase in precious metal. Simple bilateral credit did not necessarily function as money. An IOU between two parties remained limited unless others would accept it. The decisive step was transferability. When debt claims could be endorsed, assigned, and legally enforced, they could circulate as means of payment.

Promissory notes, bills of exchange, letters of credit, deposit transfers, and bank balances all reduced dependence on physical coin. They were especially important in long-distance trade, where transporting precious metal was costly and risky. Bills of exchange allowed merchants to transfer funds across space and time. Banking allowed deposits to be pooled, transferred, and lent. Fractional reserves allowed banks to create additional purchasing power beyond metallic reserves.

Rome and medieval bills of exchange

Rome provides an early example of this logic. The Roman economy was not based solely on the physical circulation of coins. Private bankers, deposit accounts, written credit instruments, and bank-mediated transfers allowed large payments to be settled without moving sacks of silver or gold. This helps explain why few coins have been found in shipwrecks: long-distance merchants did not always need to transport large quantities of coin if payments could be cleared through accounts, credit instruments, or trusted intermediaries. The low wear and tear observed on Roman gold coins points in the same direction. Gold coins were valuable stores of wealth and instruments for large payments, but they circulated less intensively in everyday exchange than silver and base-metal coins. Credit and banking therefore complemented high-value coinage by reducing the need for frequent physical transfers of gold.

A more formalized version of the same principle emerged in late medieval Europe through bills of exchange. Italian, Flemish, Catalan, and later northern European merchants used bills to settle obligations between distant commercial centres without transporting coin or bullion. A merchant could pay in one city and have a partner or correspondent receive payment in another, often in a different currency and at a later date. Bills of exchange therefore combined credit, currency conversion, and remittance in a single instrument. Because repayment was embedded in exchange between currencies and places, bills of exchange also provided a way to earn a return on credit while avoiding the formal appearance of an interest-bearing loan under canon-law restrictions on usury. They reduced transport costs,

lowered the risk of theft, economized on precious metal, and connected regional markets into wider financial networks. In this sense, the bill of exchange was not merely a credit contract; it was a monetary technology that increased the effective supply and velocity of money.

This does not mean that credit replaced money. Rather, credit instruments extended monetary functions. They depended on units of account, legal enforcement, trust, reputation, and settlement mechanisms. When confidence was strong, they economized on coin and increased velocity. When confidence weakened, users returned to coin, bullion, or more trusted currencies.

Representative money and convertibility

Representative money extended the logic of credit by standardizing claims into widely circulating instruments, especially banknotes. A banknote had little intrinsic value, but it represented a claim on metal or coin. Its credibility rested on convertibility. Users accepted paper because they believed it could be redeemed.

The advantages were substantial. Representative money was cheaper to produce, easier to transport, more elastic, and better suited to large and complex economies than metallic coin alone. It allowed banks to expand lending and allowed economies to use precious metals more efficiently. Under the gold standard, most transactions were conducted not with gold coins but with banknotes, deposits, and other claims ultimately linked to gold.

Yet the risks were equally clear. If issuers expanded notes beyond credible reserves, holders might demand redemption. If redemption failed, representative money became inconvertible. The system then crossed the boundary into fiat money, whether temporarily or permanently. China's paper-money experiments, Stockholm Banco, John Law's France, the American Continentals, and other cases show the same danger: paper instruments could expand money supply rapidly, but if issuance outran credibility, depreciation followed.

Counterfeiting and institutional constraints

Counterfeiting created an additional problem. Whereas counterfeit gold or silver coins still contained some metal value, a forged banknote was almost worthless once detected. Representative money therefore required users to trust not only the issuer's promise of redemption, but also the authenticity of the paper instrument itself. Because paper and ink were cheap relative to face value, the incentive to forge notes could be high, especially for large denominations. Successful systems therefore had to invest in secure paper, watermarks, engraving, signatures, numbering, standardized designs, legal penalties, and procedures for detecting false notes. Counterfeiting threatened confidence because each forged note raised doubts about the reliability of the whole circulating medium.

Successful representative systems therefore required institutional constraints. These could take different forms: reserve requirements, convertibility rules, unlimited shareholder liability, central-bank discipline, fiscal credibility, or reputational mechanisms. The Swedish private note system in the nineteenth century shows that private issuance could be stable under strong liability rules. The Bank of England shows how representative money gradually became tied to central banking and public finance. The gold standard shows how convertibility could anchor a vast system of paper and deposit money.

Credit and representative money therefore introduced both elasticity and fragility. They expanded liquidity, supported trade, and economized on precious metal, but they depended on confidence in counterparties, issuers, and institutions. Monetary expansion no longer required more mines. It could occur through institutions that made promises transferable, credible, and, in the case of representative money, redeemable.

16.8. Bimetallism and the problem of relative valuation

Bimetallism was another attempt to reconcile flexibility with discipline. By monetizing both gold and silver, states could broaden the metallic base and provide coins suited to different transaction sizes. Gold served high-value and international payments; silver served ordinary and regional trade. In theory, a bimetallic standard provided more monetary abundance than monometallism.

The difficulty was the fixed mint ratio. If the legal ratio between gold and silver diverged from the market ratio, one metal became undervalued at the mint and tended to disappear. Under classical free-mint bimetallism, this arbitrage was rapid. Under state-controlled or managed systems, transaction costs and restrictions could widen the stability band, but they did not remove the underlying problem.

The historical cases show different outcomes. Roman and Byzantine systems were managed rather than purely free-mint regimes and could maintain dual-metal structures for long periods. Sweden's silver-copper system was even more unusual, because copper's bulk made it unsuitable for large payments and ensured that silver retained a role. England drifted from silver to gold because official valuations and market forces made full-bodied silver disappear. France maintained bimetallism longer, but international shifts in gold and silver supplies eventually undermined the system. The United States oscillated between de facto silver and gold standards before abandoning free silver coinage.

The analytical lesson is broader than bimetallism itself. Monetary systems must solve relative valuation problems. These may concern gold versus silver, copper versus silver, token coins versus full-bodied coins, notes versus specie, domestic currencies versus international currencies, or money versus goods. Whenever official values diverge too far from market values, arbitrage, premiums, shortages, or depreciation follow.

16.9. International currencies and network effects

Some currencies have crossed borders and become international standards. The Athenian *tetradrachm*, Roman *denarius* and *aureus*, Byzantine *solidus*, Islamic *dinar*, Italian *florin* and *ducat*, Spanish dollar, Dutch *guilder*, British pound sterling, and US dollar all served this role in different periods. Their forms differed, but their success rested on similar conditions.

An international currency required large volume, stable value, liquidity, low transaction costs, institutional trust, and often financial infrastructure. For imperial or territorial currencies, political, military, or diplomatic backing helped sustain confidence; for decentralized trade coins, trust could instead rest on stable metal content, recognizability, and repeated acceptance. Network effects were central. The more widely a currency was used, the greater its convenience

and liquidity premium became. Merchants accepted it because others accepted it. Financial institutions held it because markets were liquid. States and central banks accumulated it because it served as a reserve.

International currencies did not always arise by legal decree. They often became dominant *de facto* before being recognized *de jure*. The Athenian *tetradrachm* spread through trade and reputation. The Roman *denarius* followed imperial integration. The *solidus* rested on fiscal and monetary stability. The Spanish dollar circulated globally because of massive silver supply and recognizable quality. The Dutch *guilder* and British sterling relied heavily on financial infrastructure. The US dollar combines scale, liquidity, military power, financial depth, and institutional trust.

The decline of international currencies followed predictable patterns. Debasement, fiscal weakness, political decline, military defeat, institutional fragmentation, or superior competitors could erode trust. Yet transitions were usually gradual because network effects create inertia. A dominant international currency can survive after the issuing power begins to weaken, but not indefinitely.

This theme connects ancient coinage to the modern dollar. The material form of international money changed from silver coins to gold coins, bank money, sterling bills, and fiat reserve assets. The underlying requirements remained strikingly stable.

16.10. Fiat money and the final abstraction of value

Fiat money represents the final abstraction in the book's long-run narrative. It has no intrinsic value and no promise of redemption into a commodity. It circulates because it is legally recognized, institutionally supported, and expected to retain value. Its anchor is credibility. The advantages of fiat money are clear. Above all, fiat money gives monetary authorities flexibility in the money supply. It allows them to respond to crises, expand liquidity, act as lenders of last resort, stabilise financial systems, and avoid the rigidity of metallic standards. These advantages explain why modern economies moved toward fiat money, especially after the collapse of Bretton Woods in 1971.

But fiat money also intensifies the central monetary problem. If money creation is not constrained by metal or convertibility, what prevents over-issuance? The answer is institutional discipline: credible central banks, sustainable fiscal policy, rule-like policy frameworks, anchored expectations, and public trust. Expectations of future inflation are especially important. If users believe that future money creation will be excessive, they reduce their holdings of money today, spend more quickly, demand higher nominal prices and wages, or shift into foreign currency, commodities, or real assets. In this way, expected future inflation can raise current inflation by lowering money demand and increasing velocity. Fiat money therefore does not abolish constraints. It relocates them from metal to institutions.

Hyperinflation reveals what happens when those institutional constraints collapse. Persistent fiscal deficits, monetary financing, falling money demand, and unanchored expectations generate self-reinforcing inflation. The cases of Weimar Germany and Zimbabwe show that hyperinflation is not merely rapid money growth. It is the collapse of the fiscal and monetary credibility that undermines confidence in money.

The post-1971 fiat regime has been historically unusual. It has shown that stable money does not require commodity backing. But it has also shown that stability must be actively maintained. Fiat money is neither inherently doomed nor automatically stable. It is a conditional institutional arrangement.

16.11. General lessons from monetary history

Several general conclusions emerge from the preceding chapters.

First, money is best understood by function rather than form. Its purpose is to reduce transaction costs in payment, valuation, saving, and credit. Materials and institutions changed, but this function remained constant.

Second, successful monetary systems required both market demand and institutional support. Markets created the need for money; authorities and institutions supplied standardization, enforcement, convertibility, fiscal backing, or policy credibility.

Third, monetization was uneven and reversible. Coinage, banking, paper money, and fiat systems did not spread automatically. They depended on urbanization, specialization, trade, fiscal systems, legal enforcement, and trust.

Fourth, the quantity of money was not enough. Denomination structure, liquidity, divisibility, and transaction niches mattered. A society could suffer from shortages of small change even when high-value money was available.

Fifth, fiscal pressure was a recurring source of monetary instability. Debasement, recoinage, over-issued tokens, excessive banknotes, and fiat inflation are historically different instruments of a similar fiscal temptation.

Sixth, credit and banking expanded the effective money supply by making promises transferable and by allowing banks to lend out deposits on a fractional-reserve basis. Financial development therefore reduced dependence on precious metals, but increased reliance on trust and institutions.

Seventh, international currencies arose through network effects. Their dominance required large volume, stability, liquidity, trust, financial infrastructure, and some form of political, economic, or diplomatic backing.

Eighth, monetary systems repeatedly faced a trade-off between elasticity and discipline. Commodity money provided discipline but limited elasticity. Fiat money provides elasticity but requires strong credibility. Most historical systems were compromises between these poles.

This final lesson is perhaps the most important. Monetary development did not simply replace “real” money with “unreal” money. It shifted the foundation of monetary value. Early money relied on material value. Coinage added public certification. Token and credit money relied on trust, law, and fiscal acceptance. Representative money relied on convertibility. Fiat money relies on credible institutions and expectations.

The long-run history of money is therefore the history of how societies learned to make promises function as purchasing power. Money became less material, but not less dependent on discipline. The discipline merely changed form. In the end, monetary stability has always rested on the same fragile foundation: the belief that others will accept money tomorrow because institutions will preserve its value today.

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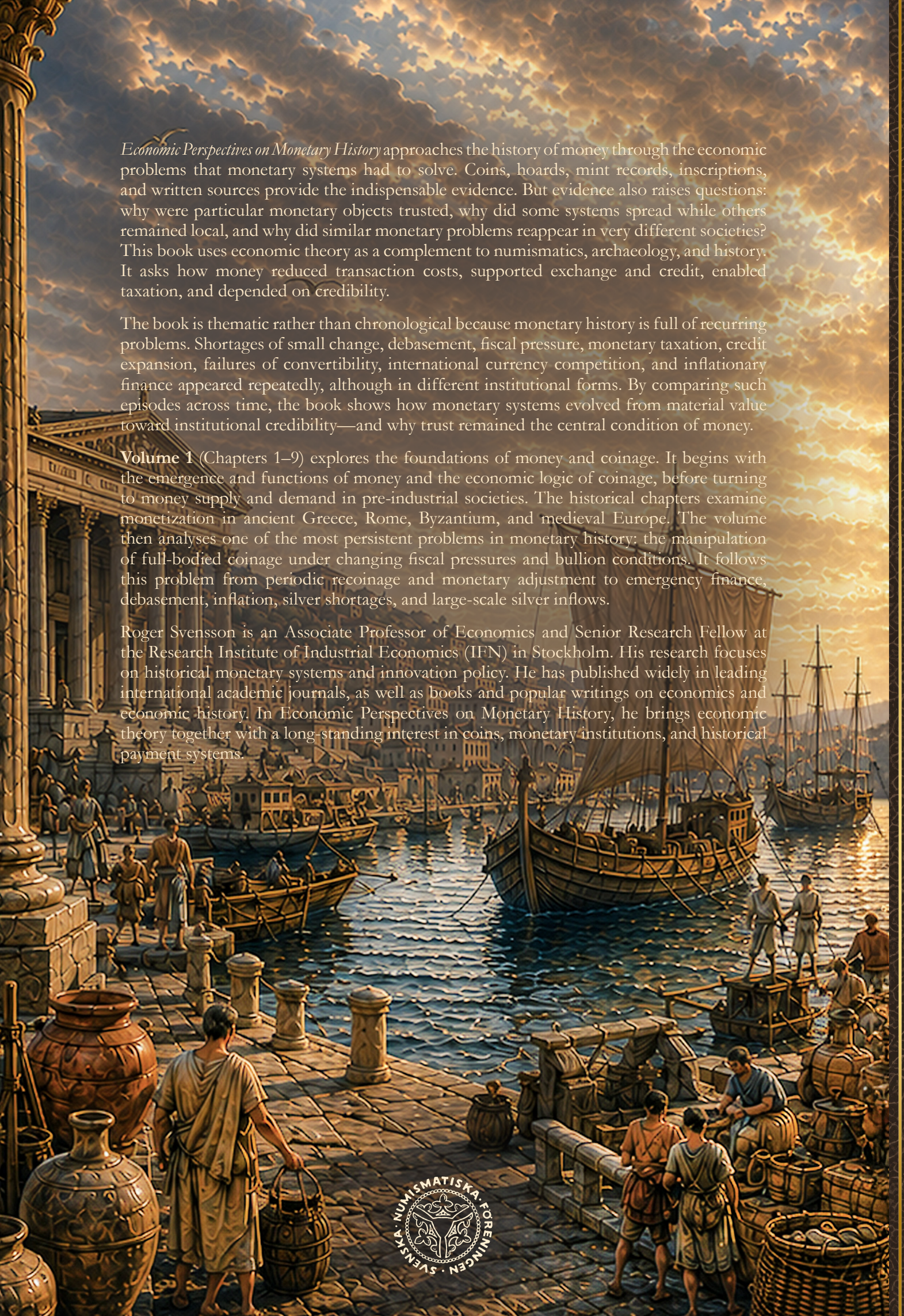
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Economic Perspectives on Monetary History approaches the history of money through the economic problems that monetary systems had to solve. Coins, hoards, mint records, inscriptions, and written sources provide the indispensable evidence. But evidence also raises questions: why were particular monetary objects trusted, why did some systems spread while others remained local, and why did similar monetary problems reappear in very different societies? This book uses economic theory as a complement to numismatics, archaeology, and history. It asks how money reduced transaction costs, supported exchange and credit, enabled taxation, and depended on credibility.

The book is thematic rather than chronological because monetary history is full of recurring problems. Shortages of small change, debasement, fiscal pressure, monetary taxation, credit expansion, failures of convertibility, international currency competition, and inflationary finance appeared repeatedly, although in different institutional forms. By comparing such episodes across time, the book shows how monetary systems evolved from material value toward institutional credibility—and why trust remained the central condition of money.

Volume 1 (Chapters 1–9) explores the foundations of money and coinage. It begins with the emergence and functions of money and the economic logic of coinage, before turning to money supply and demand in pre-industrial societies. The historical chapters examine monetization in ancient Greece, Rome, Byzantium, and medieval Europe. The volume then analyses one of the most persistent problems in monetary history: the manipulation of full-bodied coinage under changing fiscal pressures and bullion conditions. It follows this problem from periodic recoinage and monetary adjustment to emergency finance, debasement, inflation, silver shortages, and large-scale silver inflows.

Roger Svensson is an Associate Professor of Economics and Senior Research Fellow at the Research Institute of Industrial Economics (IFN) in Stockholm. His research focuses on historical monetary systems and innovation policy. He has published widely in leading international academic journals, as well as books and popular writings on economics and economic history. In *Economic Perspectives on Monetary History*, he brings economic theory together with a long-standing interest in coins, monetary institutions, and historical payment systems.

