Constantina Katsari, ***The Roman Monetary System: The Eastern Provinces from the First to the Third Century AD.*** Cambridge: Cambridge University Press. 2011. Pp. x, 304. ISBN 978-0-521-76946-4. $99.00.

Katsari has written an intelligent summary of what we know and don't know about Roman money as the early Roman Empire changed into the late Empire. She stated the conclusions from her work in one of her chapter summaries:

> Even if mountains may have divided space, the Mediterranean Sea, rivers and roads probably made possible a higher degree of movement and the subsequent monetary integration. In addition, the establishment of the *pax Romana*, which was based on the strong central imperial political authority, the policing of the provinces by the army and the regulation of the markets with the help of civic and imperial magistrates all created fertile ground for the development of interregional trade. The unified monetary system, as it was established by Augustus, facilitated not only commercial activities but also the collection of taxes in the eastern provinces (208).

These conclusions are supported by over 40 graphs. Three-quarters of them show the fineness of coins from various hoards and excavations, grouped by emperors from Trajan to Valerian. The remaining graphs show the proportion of different coins in these hoards and excavations. As might be anticipated, there are a lot of discordant lines in these graphs, and Katsari interprets these complex data in light of the secondary literature. She chose not to explore the data further with statistics that could help separate noise from patterns in the graphs, and the two parts of her argument consequently have a slightly separated existence.

Katsari sets up her book as a test of "metallism" versus "chartalism." The former view regards money as what economists call commodity money, that is, money that has equal worth as money and other uses. The latter view is that money is what economists call fiduciary money, that is, money that does not have intrinsic value, but rather acquires value from government actions. Roughly, commodity money was widespread before the twentieth century, while fiduciary money is what we deal with today. Fiduciary, largely paper, money is "bad" money in Gresham's Law, and it has driven out commodity money. But commodity money may be good or bad in a bimetallic or trimetallic system, as Katsari discusses.

She concludes that both views are needed to understand Roman money and proposes a new synthesis which she labels Fiscal Metallism in the closing words of her book. This is a reasonable view, as Roman money had both characteristics. The state enforced the Augustan currency values in its tax collections, but the state appeared to think of itself as "metallist." Its use of several metals, however, meant that the state's stable currency ratios could not follow market fluctuations in the relative value of monetary metals. Gresham's Law then operated to determine which coins were used. This law, of course, operates only in a market setting where it makes sense to think about market fluctuations in the relative value of metals. Katsari takes this view of the Roman economy, as noted already, and her use of Gersham's Law is consistent with her general view.

The chapters discuss different topics, and it may be illuminating to see them as answering different questions. In the first chapter, for example, Katsari asks how to approach numismatic data, and she discusses the source and treatment of the data she presents in her graphs. In the second chapter, she asks if the numismatic data are the results of government action, and generally answers affirmatively. These two introductory chapters set the stage for the detailed questions to follow.

In Chapter 3, Katsari asks how the Roman trimetallic state operated. She argues that the Hellenistic local currencies of the eastern empire were linked into the Augustan currency system by establishing a fixed exchange rate between the eastern and western currencies. This system lasted, in her view, for about two and a half centuries, until the Augustan denarius was replaced by the antoninianus in the middle of the third century. Katsari states that "we may assume that debasements, devaluations or overvaluations of the denarius would have affected also the rest of the currencies (74)." This assumption is reasonable, but it is another question rather than a conclusion documented in the data. Katsari invokes Gresham's Law to explain the disappearance of gold coins at the same time. She argues that gold became the basis for a new currency based on the solidus at the beginning of the fourth century, but she does not fully explore this transition in this book.

Katsari asks in the following chapter how the transition to the antoniniani actually took place. She relies on Rathbone's price data, but interprets his statements that prices were stable in much of the second and third centuries to mean "that inflation was either non-existent or negligible until the reign of Aurelian in AD 274 (126)." This view confuses Rathbone's view of how ancient inflation worked with his view of inflation. Rathbone made clear that prices rose dramatically after the Antonine plague and were far higher in the third century than before the plague. Katsari also injects the concept of hyperinflation, which economists reserve for inflations of over 50% a *month*. Nothing like this was observed in the ancient world. And she presents "a new hypothesis" that silver coins were debased enough to serve as small change in place of bronze coins (154). Another case of Gresham's Law.

In the final two substantive chapters, Katsari asks how the upper classes and then common people used currency in late antiquity. This, of course, is the key question of Roman monetary history. She quotes Banaji (2002) to say that gold was used by all levels of society. This view conflicts with her earlier attention to small change, and it cannot be true as stated, since gold cannot be divided fine enough to supply small change. Katsari instead argues that small change was supplied locally (210). She wisely calls for more study of currency use.

The book as a whole reveals how much more we know about the composition of coins than about their use. Katsari presents abundant numismatic data, which she combines with a survey of the secondary literature on economic activity. She asks good questions and poses provisional hypotheses that should be explored further. Perhaps the

best quality of this book is its combination of numismatic and economic questions, pointing toward the continuing efforts to integrate these two related fields.

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