

# Rome's Economic Revolution



Philip Kay

# Roman 'Empire' c. 218 BC





# CICERO *De Imperio Cnaei Pompeii* 19

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*For then, when very many people lost large fortunes in Asia, we know that there was a collapse of credit at Rome, because repayments were interrupted. It is indeed impossible for many individuals in a single state to lose their property and fortunes without involving still greater numbers in their ruin. Defend the Republic from this danger; and believe me when I tell you—what you see for yourselves—that this credit and this system of monies (pecuniae), which operates at Rome in the Forum, is bound up in, and is linked with, those Asian monies (pecuniae Asiaticae); the loss of the one inevitably undermines the other and causes its collapse.*

# CICERO *De Imperio Cnaei Pompeii* 19

- UPDATED

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*For then, when very many people lost large fortunes in Asia, we know that there was a collapse of credit at Rome, because repayments were interrupted. It is indeed impossible for many individuals in a single state to lose their property and fortunes without involving still greater numbers in their ruin. Defend the Republic from this danger; and believe me when I tell you—what you see for yourselves—that this credit and **the UK banking system** is bound up in, and is linked with, **US sub-prime**; the loss of the one inevitably undermines the other and causes its collapse.*

# Roman Bronze Coin

- c. 200 BC

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sextans c. 200 BC

Obv.: Mercury with two pellets; Rev.: galley prow with two pellets.



# Indemnities & Booty

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## Indemnities Received by the Romans & Booty

- Indemnities: third century BC = 5,000 talents
- Indemnities: 201–152 BC = 27,280 talents
- Booty: 200–157 BC = 18,250 talents (+?)

## Monetary Equivalences

- 4 sestertii (HS) = 1 denarius
- 6,000 denarii = 1 talent

## Purchasing Power

- 1 slave = 400 denarii
- 1 legion's pay for one year = 100 talents
- 1 aqueduct (Aqua Marcia) = 7,500 talents

## *Polybius 9.10.11*

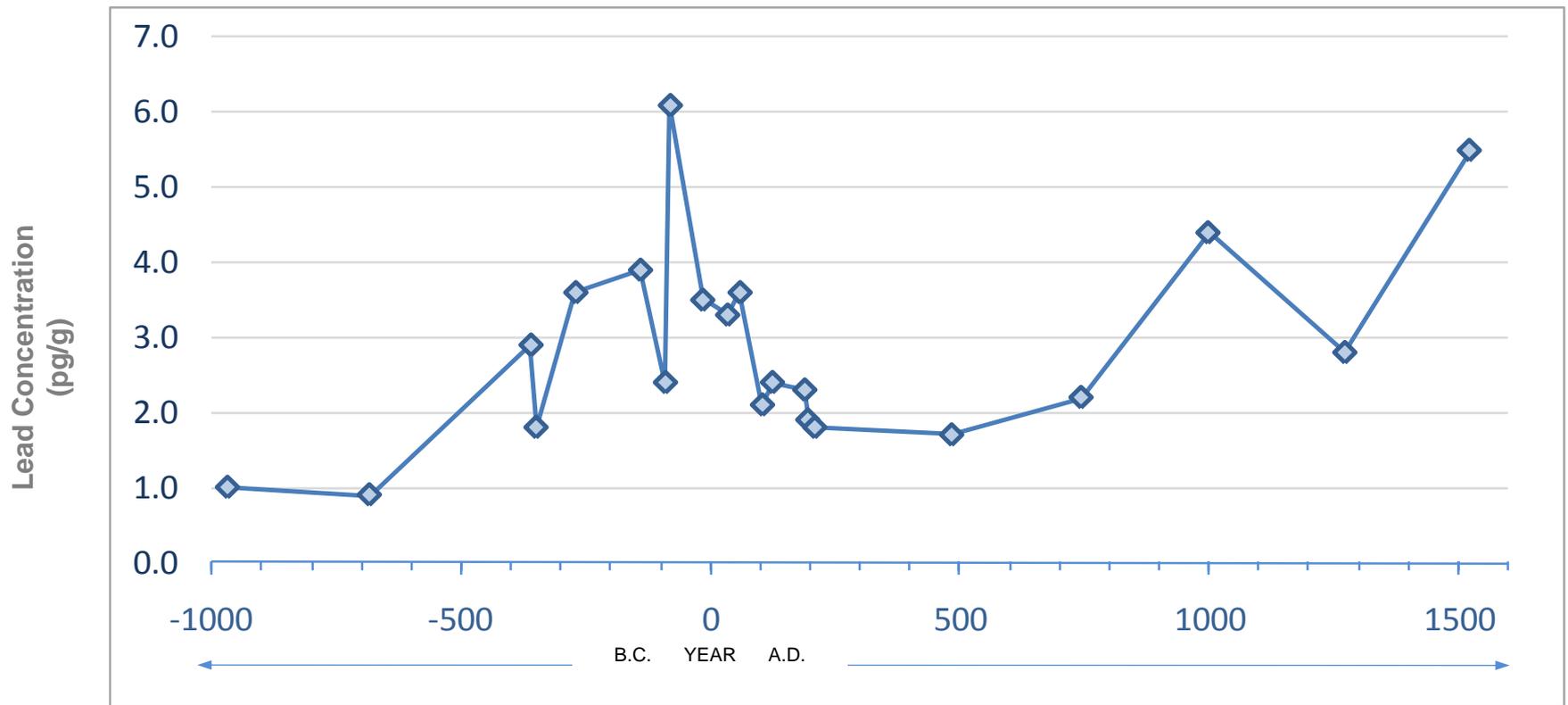
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τὸ μὲν οὖν τὸν χρυσὸν καὶ τὸν ἄργυρον ἀθροίζειν πρὸς αὐτοὺς ἴσως ἔχει τινὰ λόγον· οὐ γὰρ οἶον τε τῶν καθόλου πραγμάτων ἀντιποιησάσθαι μὴ οὐ τοῖς μὲν ἄλλοις ἀδυναμίαν ἐνεργασαμένους, σφίσι δὲ τὴν τοιαύτην δύναμιν ἐτοιμάσαντας.

*There was, therefore, perhaps a certain logic in appropriating all the gold and silver for themselves; for it was impossible for them to aim at world domination unless they deprived other peoples of such resources and acquired them for themselves.*

# Greenland - Lead Pollution Levels

LEAD IN GREENLAND ICE



Adapted from Wilson, A.I. (2002). 'Machines, Power and the Ancient Economy', *JRS* 92: 1–32.

# Receipts of Silver

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- **From booty and indemnities (201–152 BC): 1,100 tonnes**

= 22 tonnes per annum

- **From the Spanish Mines (after 160 BC)**

= 35 tonnes per annum

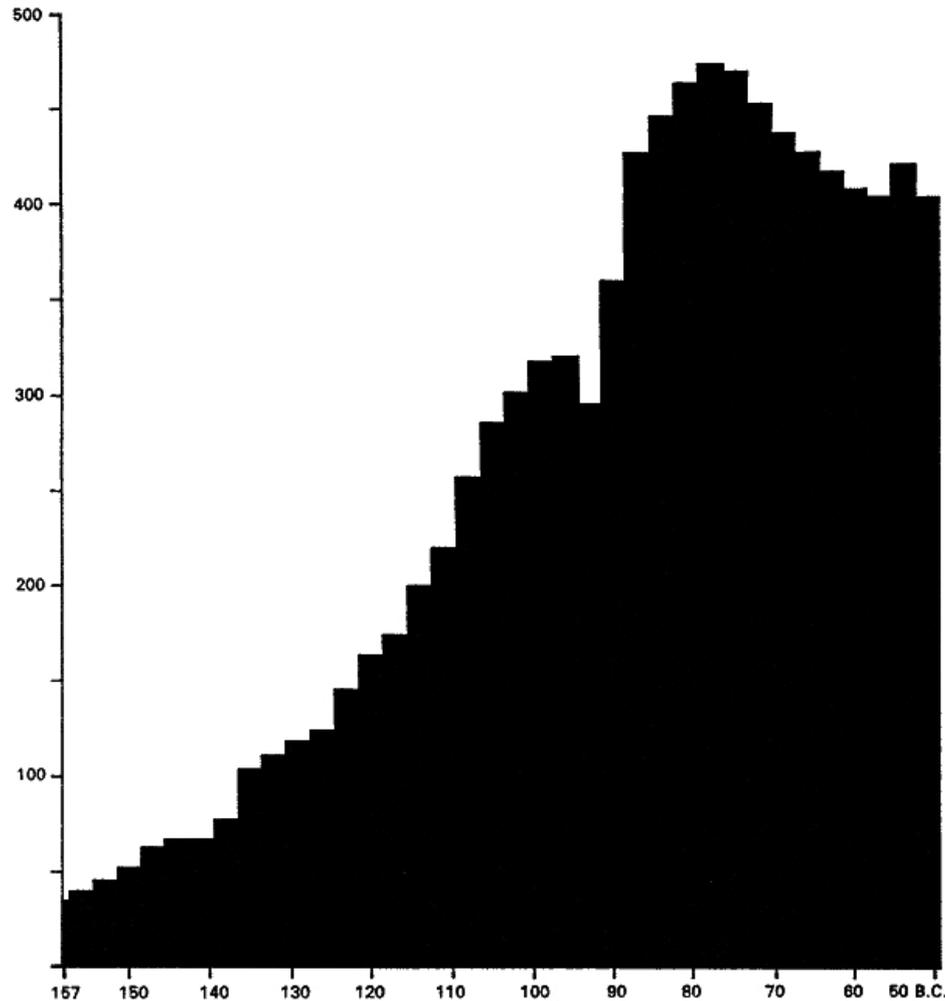
- **From the Taxes from the provinces, especially Asia (after 122 BC)**

= 190 tonnes per annum

# Roman Silver Coins in Circulation

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157–50 BC [1,000,000 denarii, by three-year periods]



Reproduced from  
Hopkins, K. (1980).  
'Taxes and trade in the  
Roman Empire (200 bc  
– ad 400)', *JRS* 70:  
109.

# The Roman Banker

- c. 4<sup>th</sup> Century AD

Roman relief showing an argentarius with his *mensa* (table) for counting



# Plautus *Persa* 433-6

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*Mirum quin tibi ego crederem, ut idem mihi  
facere quod partim faciunt argentarii:  
ubi quid credideris, citius extemplo a foro  
fugiunt quam ex porta ludis cum emissus lepus.*

Are you surprised that I wouldn't trust you to do the same to me as some bankers do?

If you entrust them with anything, they are out of the forum faster than a hare from its cage door at the games.

# Plautus *Curculio* 371-4

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*Beatus videor. Subduxi ratiunculam,  
quantum aeris mihi sit quantumque alieni siet.  
Dives sum, si non reddo eis quibus debeo.  
Si reddo illis quibus debeo, plus alieni est.*

I seem to be blessed. I've drawn up a little account  
to work out how much money I have and how much I've borrowed.  
I'm rich, as long as I don't repay those who I owe.  
If I do repay my creditors, there's more around to borrow.

# Pliny the Elder *Natural History* 33. 138

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*Populus Romanus stipem spargere coepit Sp. Postumio Q.  
Marcio cos.; tanta abundantia pecuniae erat.*

The Roman People began to spray their cash around in the consulship of Spurius Postumus and Quintus Marcius. So great was the abundance of money.

# Aqua Marcia

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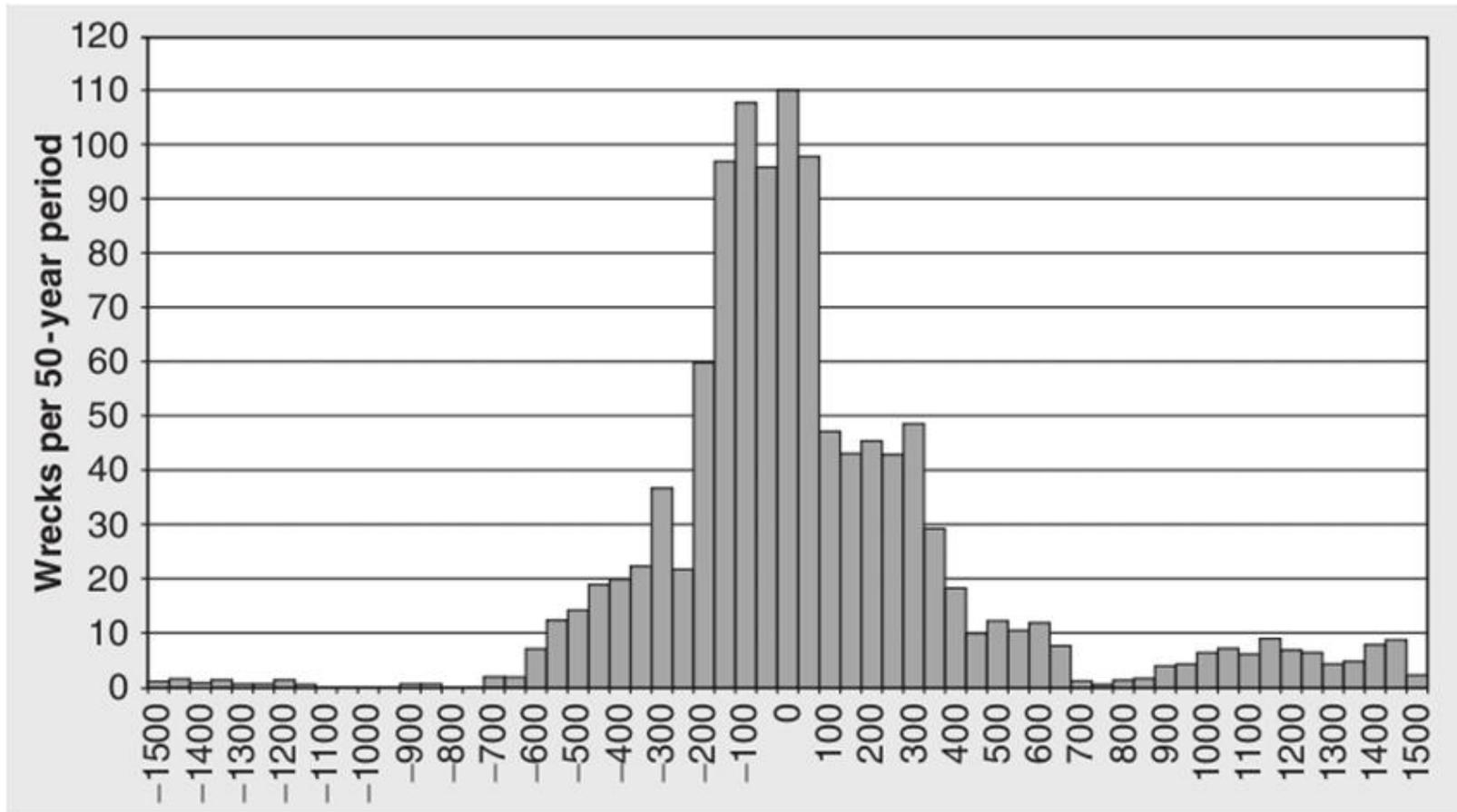
# Roads

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# Mediterranean Shipwrecks

- By half century using probability per annum



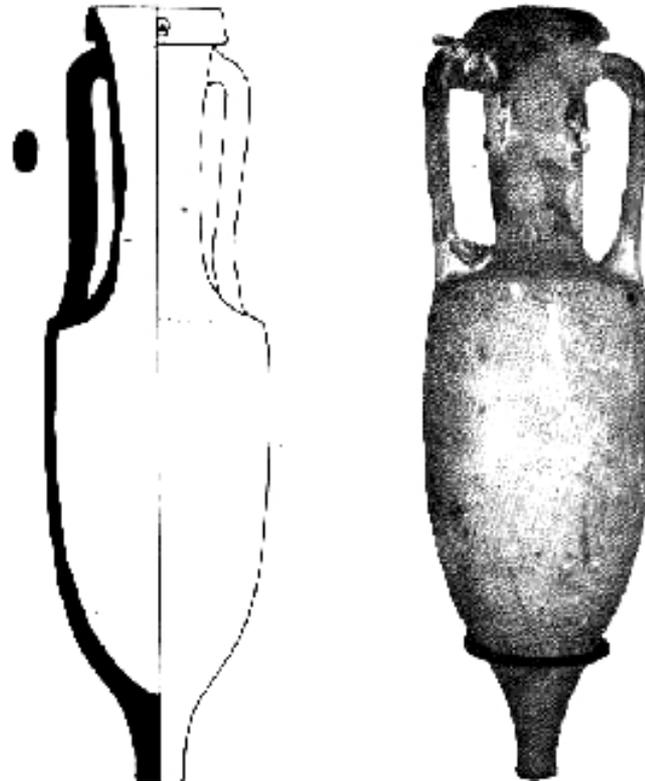
Data from Parker, A.J. (1992). *Ancient Shipwrecks of the Mediterranean and the Roman Provinces*. London. Reproduced from Wilson, A.I. (2009). 'Approaches to quantifying Roman trade', in Bowman, A.K. and Wilson, A.I. (eds.) *Quantifying the Roman Economy*. Oxford.

# Types of Amphorae

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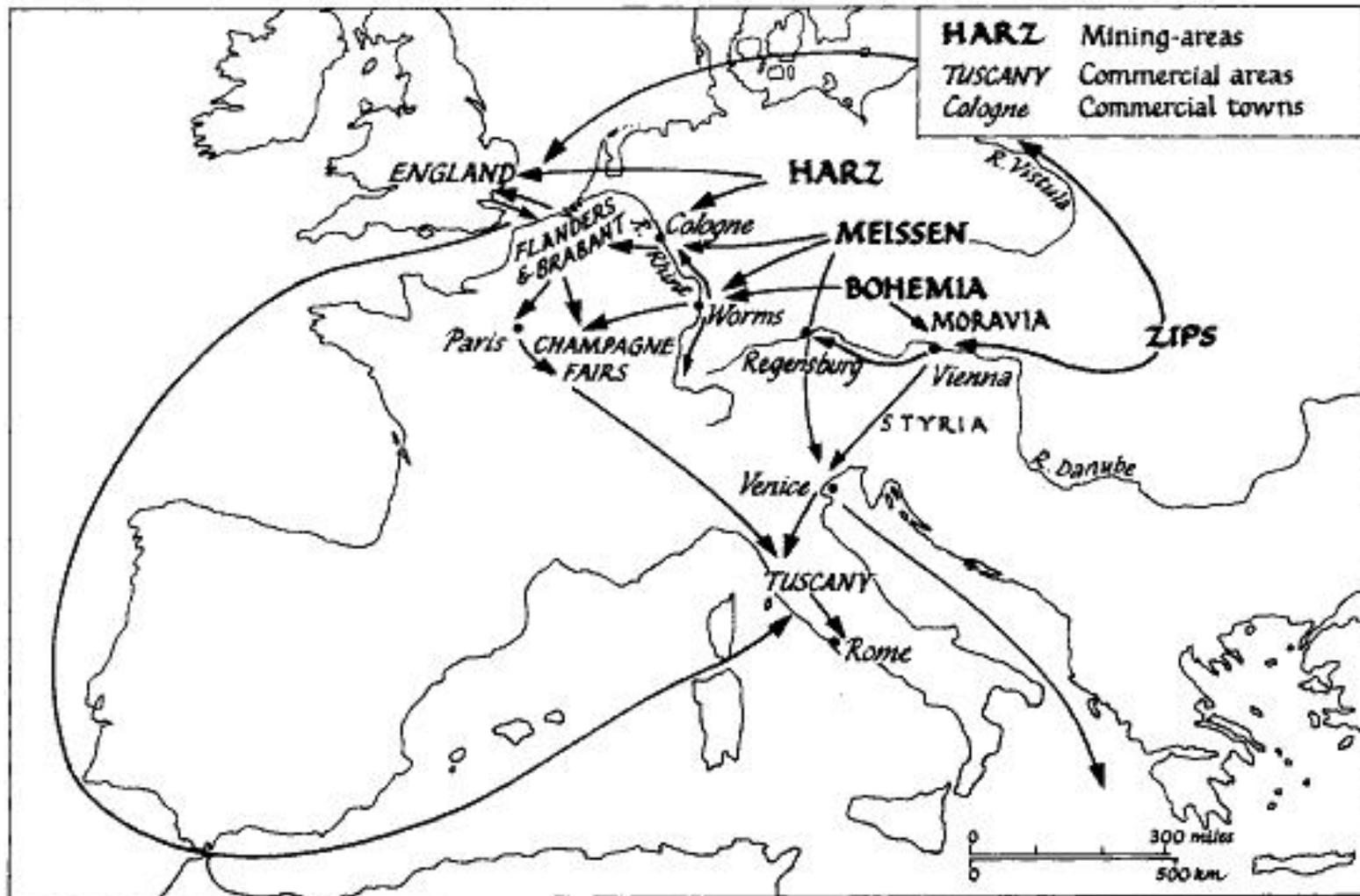


Graeco-Italic  
amphora.



Dressel 1A  
amphora.

# Movement of European Silver



# Delos - Δήλος



# Delos in its geographical context

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Map of the Eastern Mediterranean, showing Delos marked (A).

# ‘The bankers on Delos’

- *IDélos* 1715

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οἱ ἐν Δήλῳ τραπεζῖται

# Italian population breakdown *(estimated)*

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<b>'000</b>	<b>200 BC</b>	<b>150 BC</b>	<b>100 BC</b>	<b>50 BC</b>
<b>Slaves</b>	190	490	800	1,200
<b>Free population</b>				
Urban	450	700	825	1,200
Rural	2,552	3,833	4,285	3,445
<b>Total</b>	<b>3,192</b>	<b>5,023</b>	<b>5,910</b>	<b>5,845</b>
<b>%</b>	<b>200 BC</b>	<b>150 BC</b>	<b>100 BC</b>	<b>50 BC</b>
Slaves	6%	10%	14%	21%
Free population				
Urban	14%	14%	14%	20%
Rural	80%	76%	72%	59%
Total	100%	100%	100%	100%

# Summary

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## Boom in monetary liquidity

Large inflows of bullion from warfare

- from mining
- from provincial taxation

**More bankers** ➡ **greater lending** ➡ **increased money supply**

## Boom in monetary liquidity leads to a major increase in economic activity

- Construction at Rome
- Increase in shipwrecks
  - trade in wine and olive oil to the western Mediterranean
  - trade in slaves and luxury goods from the eastern Mediterranean

# And Finally . . .

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*When the music stops, in terms of liquidity, things will be complicated. But as long as the music is playing, you've got to get up and dance. We're still dancing.*

**Charles “Chuck” Prince III**, Chief Executive of Citigroup

(Quoted in the *Financial Times*, 10th July 2007 — fired 4th November 2007)

OXFORD



OXFORD STUDIES ON THE ROMAN ECONOMY

# ROME'S ECONOMIC REVOLUTION

Philip Kay