In search of Roman economic growth

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In 2002, R. P. Saller urged Roman historians to define their terms in discussing "economic growth". He emphasized the necessity of distinguishing gross or extensive growth from *per capita* or intensive growth and argued that the observed upturn in economic indicators in the Late Republican and Early Imperial periods may well be compatible with a fairly low annual rate of intensive growth of less than 0.1%. He also identified the need for explanations of the abatement of signs of economic expansion and the timing of this phenomenon.[1]

In the most basic terms, we must ask whether Roman economic growth was terminated by endogenous or exogenous factors. Was economic development the result of a limited and unrepeatable improvement in productivity that was gradually offset by population growth (i.e., by Malthusian pressures), or was productivity growth theoretically sustainable in the long run but in practice curtailed by shocks to the system such as political or military crises? In the former scenario, Roman expansion and eventual political unification of the entire Mediterranean and its hinterlands would have relaxed existing resource constraints by creating conditions that boosted agricultural output, trade, and the flow of information, thereby increasing *per capita* GDP. This, in turn, would have encouraged population growth that increasingly eroded these benefits by depressing real incomes and constraining further development. In the latter scenario, by contrast, economic growth might well have continued for longer than it actually did had it not been interrupted by events (such as epidemics, political conflict, or invasions) that were not themselves a direct consequence of economic development.[2]

This deliberately schematic dichotomy primarily serves the purpose of introducing two alternative models of the nature of growth that are susceptible to empirical testing. Testable working hypotheses are essential to our understanding of economic history but have so far been absent from the debate. Instead, recent years have witnessed a surge in publications that merely seek to demonstrate the existence of Roman economic growth and identify factors that are considered to have been conducive to this process. Some of this work draws on quantifiable proxy data taken to reflect economic growth.[3] While this drive toward explicit quantification is to be welcomed, the pervasive under-theorization of these studies remains a matter of concern.[4] They share the implicit assumption that the data speak for themselves in the sense that increases in a given proxy variable are interpreted as a signal of economic growth, yet fail

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1 R. Saller, "Framing the debate over growth in the ancient economy," in W. Scheidel and S. von Reden (edd.), *The ancient economy* (Edinburgh 2002) 251-69, and in J. G. Manning and I. Morris (edd.), *The ancient economy: evidence and models* (Stanford, CA 2005) 223-38.

2 These alternatives are set out in greater detail by P. Temin, "Escaping Malthus: economic growth in the early Roman empire" (forthcoming). For a non-Malthusian variant of the unsustainable growth scenario, see M. Silver, "Roman economic growth and living standards: perceptions versus evidence," *AncSoc* 37 (2007) 227 and 237-41, who blames the eventual cessation of Roman economic growth on what he elects to call "perverse economic policies".

3 A. Wilson, "Machines, power, and the ancient economy," *JRS* 92 (2002) 1-32; id., "Approaches to quantifying Roman trade," in A. Bowman and A. Wilson (edd.), *Quantifying the Roman economy* (Oxford 2009) 213-49; F. De Callataÿ, "The Graeco-Roman economy in the super-long run: lead, copper, and shipwrecks," *JRA* 18 (2005) 361-72; R. B. Hitchner, "'The advantages of wealth and luxury': the case for economic growth in the Roman empire," in J. G. Manning and I. Morris (edd.), *The ancient economy: evidence and models* (Stanford, CA 2005) 207-22; W. Jongman, "The early Roman Empire: consumption," in W. Scheidel, I. Morris and R. Saller (edd.), *The Cambridge economic history of the Greco-Roman world* (Cambridge 2007) 592-618 [=2007a]; W. Jongman, "Gibbon was right: the decline and fall of the Roman economy," in O. Hekster, G. De Kleijn, and D. Slootjes (edd.), *Crises and the Roman empire* (Leiden 2007) 183-99 [=2007b]; Silver (supra n.2).

4 The only relevant paper by an economist (Silver ibid.) does little to address this deficit. For a detailed discussion of what we would need to know to explore Roman economic growth that implicitly highlights the shortcomings of existing work in this field, see P. Temin, "Growth theory for ancient economies" (forthcoming).