
Progress and Confusion

The State of Macroeconomic Policy

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Debt Supercycle, Not Secular Stagnation

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I want to address a narrow yet fundamental question for understanding the current challenges facing the global economy: Has the world sunk into “secular stagnation,” with a long future of much lower per capita income growth driven significantly by a chronic deficiency in global demand? Or does weak postcrisis growth reflect the post-financial-crisis phase of a debt supercycle where, after deleveraging and borrowing headwinds subside, expected growth trends might prove higher than simple extrapolations of recent performance might suggest?¹

In this chapter I argue that the financial crisis/debt supercycle view provides a much more accurate and useful framework for understanding what has transpired and what is likely to come next. Recovery from financial crises need not be symmetric; the United States and perhaps the United Kingdom have reached the end of the deleveraging cycle, while Europe, owing to weaknesses in the construction of the eurozone, is still very much in the thick of it. China, having markedly raised economy-wide debt levels in response to the crisis originating in the West, now faces its own challenges from high debt, particularly local government debt.

The Case for a Debt Supercycle

The evidence in favor of the debt supercycle view is not merely qualitative but also quantitative. The run-up to and aftermath of the 2008 global financial crisis has unfolded like a garden variety post-World War II financial crisis, with very strong parallels to the baseline averages and medians that Carmen Reinhart and I documented in our 2009 book, *This Time Is Different*.² The evidence is not simply the deep fall in output and subsequent very sluggish U-shaped recovery in per capita income

that commonly characterize recovery from deep systemic financial crises. It also includes the magnitude of the housing boom and bust, the huge leverage that accompanied the bubble, the behavior of equity prices before and after the crisis, and certainly the fact that increases in unemployment were far more persistent than after an ordinary recession that is not accompanied by a systemic financial crisis. Even the dramatic increases in public debt that occurred after the crisis are quite characteristic.

Of course, the crisis had unique features, the most important of which was the eurozone debt drama, which exacerbated and deepened the problem. Emerging market economies (EMEs) initially recovered relatively quickly, in part because many entered the crisis with relatively strong balance sheets. Unfortunately, a long period of higher borrowing by both the public sector and corporations has left EMEs vulnerable to an echo of the advanced economies' financial crisis, particularly as growth in China slows and the US Federal Reserve System contemplates raising interest rates.

Modern macroeconomics has been slow to come to grips with the analytics of how to incorporate debt supercycles into canonical models, but there has been much progress in recent years,³ and the broad contours help explain the now well-documented empirical regularities. As credit booms, asset prices rise, which raises their value as collateral, thereby helping to expand credit and raise asset prices even more. When the bubble ultimately bursts, often catalyzed by an underlying adverse shock to the real economy, the whole process spins into a harsh and precipitous reverse.

Of course, policy played an important role. However, there has been far too much focus on orthodox policy responses and not enough on heterodox responses that might have been better suited to a crisis greatly amplified by a financial market breakdown. In particular, policymakers should have more vigorously pursued debt write-downs (e.g., subprime debt in the United States and periphery country debt in Europe), accompanied by bank restructuring and recapitalization. In addition, central banks were too rigid in their inflation target regimes; had they been more aggressive in getting out in front of the crisis by pushing for temporarily elevated inflation rates, the problem of the zero lower bound might have been avoided. In general, the failure to more seriously consider the kinds of heterodox responses that EMEs have long employed in part reflected

an inadequate understanding of how advanced economies have dealt with banking and debt crises in the past.⁴

Fiscal policy (one of the instruments of the orthodox response) was initially very helpful in avoiding the worst possible outcomes, but then many countries tightened prematurely, as IMF managing director Christine Lagarde rightly noted in her opening speech at the "Rethinking Macro Policy III" conference. Slowing the rate of debt accumulation was one motivation, as she noted, but let us not have collective amnesia. Overly optimistic forecasts played a central role in every aspect of most countries' response to the crisis. No one organization was to blame, as virtually every major central bank, finance ministry, and international financial organization was repeatedly overoptimistic. Most private and public forecasters anticipated that once a recovery began, it would be V-shaped, even if somewhat delayed. In fact, the recovery took the form of the very slow U-shaped recovery predicted by scholars who had studied past financial crises and debt supercycles. The notion that the forecasting mistakes were mostly due to misunderstanding fiscal multipliers is thin indeed. The timing and strength of both the US and UK recoveries defied the predictions of polemicists, who insisted that very slow and gradual normalization of fiscal policy was inconsistent with recovery.

Secular Stagnation

Of course, secular factors have played a role, as they always do in both good times and bad. Indeed, banking crises almost invariably have their roots in deeper real factors driving the economy, with banking crises typically being an amplification mechanism rather than a root cause.

What are some particularly obvious secular factors? Well, of course, demographic decline has set in across most of the advanced world and is on the doorstep of many EMEs, notably China. In the long run, global population stabilization will be of huge help in achieving sustainable global economic growth, but the transition is surely having profound effects, even if we do not begin to understand all of them.

Another less trumpeted secular factor is the inevitable tapering off of the ever greater share of women in the labor force. For the past few decades,

per capita output, but the main shift is likely nearing an end in many countries, and so will no longer contribute to growth.

Then there is also the supercycle of Asia's rise in the global economy, particularly China. Asian growth has been pushing up IMF estimates of global potential growth for three decades now. As China shifts to a more consumption-based domestic-demand-driven growth model, its growth will surely taper off, with significant effects around the globe on consumers' real incomes and on commodity prices, among other factors. As Asian growth slows, global growth will likely tend back toward its fifty-year average.

Going forward, perhaps the most difficult secular factor to predict is technology. Technology is the ultimate driver of per capita income growth in the classic Solow growth model. Some would argue that technology is stagnating, with computers and the Internet being a relatively modest and circumscribed advance compared to past industrial revolutions. Perhaps, but there are reasons to be much more optimistic. Economic globalization, communication, and computing trends all suggest an environment highly conducive to continuing rapid innovation and implementation, not a slowdown. Indeed, I personally am far more worried that technological progress will outstrip our ability to socially and politically adapt to it than that innovation is stagnating. Of course, because of tight credit in the aftermath of the financial crisis, some technological developments may have been "trapped" by lack of funding. But the ideas are not lost, and the cost to growth is not necessarily permanent.

What of Solow's famous 1987 remark, "You can see the computer age everywhere but in the statistics"? Perhaps, but one has to wonder to what extent the statistics accurately capture the welfare gains embodied in new goods during a period of such rapid technological advancement. Examples abound. In advanced economies, the possibilities for entertainment have expanded exponentially, with consumers having at their fingertips a treasure trove of music, films, and TV programs that would have been unimaginable twenty-five years ago. Health improvements through the use of low-cost statins, ibuprofen, and other miracle drugs are widespread. It is easy to be cynical about social media, but the fact is that humans enormously value connectivity, even if GDP statistics really cannot measure the consumer surplus from these inventions. Skype and

a grandchild in a distant city or country. Disruptive technologies such as the transportation network Uber point the way toward vastly more efficient uses of the existing capital stock. Yes, there are negative trends, such as environmental degradation, that detract from welfare, but overall it is quite likely that measured GDP growth understates actual growth, especially when measured over long periods. It is quite possible that future economic historians, using perhaps more sophisticated measurement techniques, will evaluate ours as an era of strong growth in middle-class consumption, in contradiction to the often polemic discussion one sees in public debate on the issue.

All in all, the debt supercycle model and the secular stagnation view of today's global economy may present two different views of interpreting the same phenomenon, but one is far more speculative than the other. The debt supercycle model matches up with a couple of hundred years of experience with similar financial crises. The secular stagnation view does not capture the heart attack the global economy experienced; slow-moving demographics do not explain sharp housing price bubbles and collapses.

Low Real Interest Rates Mask an Elevated Credit Surface

What about the very low value of real interest rates? Low rates are often taken as *prima facie* evidence by secular stagnation proponents, who argue that only a chronic demand deficiency could be responsible for steadily driving down the global real interest rate. The steady decline in real interest rates is certainly a puzzle, but a host of factors could account for it. First, we do not actually observe the true economic real interest rate that would require a utility-based price index that is extremely difficult to construct in a world of rapid change in both the kinds of goods we consume and the way we consume them. My guess is that the true real interest rate is higher, and perhaps this bias is larger than usual. Correspondingly, true economic inflation is probably considerably lower than even the low measured values that central banks are struggling to raise.

Perhaps more important, in a world where regulation has sharply curtailed access for many smaller and riskier borrowers, low sovereign bond yields do not necessarily capture the broader credit surface the global economy faces.¹ Whether by accident or by design, banking and financial

market regulation has hugely favored low-risk borrowers (governments and cash-heavy corporations), knocking out other potential borrowers who might have competed up rates. Many of those who can borrow face higher collateral requirements. The elevated credit surface owes partly to inherent riskiness and slow growth in a postcrisis economy, but policy has also played a large role. Many governments, particularly in Europe, have rammed sovereign bonds down the throats of pension funds, banks, and insurance companies. Financial repression of this type effectively taxes not only middle-income savers and pensioners (who receive low rates of return on their savings) but also potential borrowers (especially middle-class consumers and small businesses), which these institutions might have financed to a greater extent had they not been required to be so overweight in government debt.

Surely global interest rates are also affected by the massive balance sheet expansions that most advanced country central banks have engaged in. I don't believe this is as important as the other effects I have discussed (even if most market participants would say the reverse). Global quantitative easing by advanced economies and sterilized intervention operations by EMEs have also surely had a very large impact on bringing down market volatility measures.

The fact that global stock market indices have hit new peaks is certainly a problem for the secular stagnation theory, unless one believes that profit shares are going to rise massively further. I won't pretend there is one simple explanation for the stock-bond disconnect (after all, I have already listed several). But one important observation follows the work of my colleague Robert Barro. Barro has shown that in canonical equilibrium macroeconomic models (which could be Keynesian, but his is not), small changes in the market perception of tail risks can lead both to significantly lower real risk-free interest rates and to a higher equity premium. Another one of my colleagues, Martin Weitzman, has espoused a different variant of the same idea based on how people form Bayesian assessments of the risk of extreme events.

Indeed, it is not hard to believe that the average global investor changed his or her general assessment of all types of tail risks after the global financial crisis. The fact that EM investors are playing a steadily increasing role in global portfolios also plausibly raises generalized risk assessments, since many of these investors inhabit regions that are still

inherently riskier than advanced economy countries. I don't have time to go into great detail here, though I have discussed the idea for many years in policy writings⁶ and have explored the idea analytically in recent work with Carmen and Vincent Reinhart.⁷ Of course, a rise in tail risks will also initially cause asset prices to drop (as they did in the financial crisis), but then subsequently they will offer a higher rate of return to compensate for risk. All in all, a rise in tail risks seems quite plausible, even if massive central bank intervention sometimes masks the effect on market volatility measures.

What are the policy differences between the debt supercycle model and the secular stagnation view? When it comes to government spending that productively and efficiently enhances future growth, the differences are not first order. With low real interest rates and large numbers of unemployed (or underemployed) construction workers, good infrastructure projects should offer a much higher rate of return than usual.

However, those who would argue that even a very mediocre project is worth doing when interest rates are low have a much tougher case to make. It is highly superficial and dangerous to argue that debt is basically free. To the extent that low interest rates result from fear of tail risks à la Barro and Weitzman, one has to worry that the government itself might be exposed to the same kinds of risks the market is worried about, especially if overall economy-wide debt and pension obligations are near or at historical highs already. Obstfeld has argued cogently that governments in countries with large financial sectors need to have ample cushion, as otherwise government borrowing might become very expensive in precisely the states of nature where the private sector has problems.⁸ Alternatively, if one views low interest rates as giving a false view of the broader credit surface (as Geanakoplos argues), one has to worry whether higher government debt will perpetuate the political economy policies that are helping the government finance debt but making it more difficult for small businesses and the middle class to obtain credit.

Unlike secular stagnation, the debt supercycle is not forever. As the economy recovers, collateral values will recover and, eventually, the economy will be positioned for a new rising phase of the leverage cycle. Over time, financial innovation will bypass some of the more onerous regulations. If so, real interest rates will rise, though the overall credit surface facing the economy will flatten and ease.

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Sundry Unrelated Issues

Let me conclude by briefly touching on a few further issues. First, it is unfortunate that in the debate over the size of government, there is far too little discussion of how to make government a more effective provider of services. The case for having a bigger government can be strengthened when combined with ways for finding out how to make government better. Education would seem to be a leading example. Second, inequality in advanced economy countries is certainly a problem and plausibly plays a role in the global shift to a higher savings rate. Tax policy should be used to address these secular trends, perhaps starting with higher taxes on urban land, which seems to lie at the root of inequality in wealth trends. I am puzzled again, however, that those who claim to be interested in inequality from a fairness perspective pay so much attention to the world's upper middle class (the middle class of advanced economy countries) and so little attention to the true global middle class. Shouldn't a factory worker in China get the same weight in global welfare as one in France? If so, the past thirty years have largely been characterized by historic decreases in inequality,⁹ not rises, as many seem to believe. In any event, these are all important issues, but they should not be confused with longer-term output-per-capita trends.

Concluding Remarks

The case for describing the world as being in a debt supercycle is both theoretically and empirically compelling. The case for secular stagnation is far thinner. It is always very difficult to predict long-run future growth trends, and although there are some headwinds, it seems at least as likely that technological progress will outperform over the next two decades as that it will exhibit a sharp slowdown.

Again, the United States appears to be near the tail end of its leverage cycle and Europe is still deleveraging, while China may be nearing the downside of a leverage cycle. Though many factors are at work, the view that we have lived through a debt supercycle, marked by a severe financial crisis, is far more constructive for policy analysis than the view that the world is suffering from long-term secular stagnation as a result of a

Notes

1. Stephanie Lo and Kenneth Rogoff, "Secular Stagnation, Debt Overhang and Other Rationales for Sluggish Growth, Six Years On," BIS Working Paper 482, Bank for International Settlements, January 2015, <http://www.bis.org/publ/work482.htm>.
2. Carmen M. Reinhart and Kenneth S. Rogoff, *This Time Is Different: Eight Centuries of Financial Folly* (Princeton, NJ: Princeton University Press, 2009).
3. For a survey, see John Geanakoplos, "Leverage, Default, and Forgiveness: Lessons of the American and European Crises," *Journal of Macroeconomics* 39, pt. B (March 2014): 313–333.
4. Carmen M. Reinhart, Vincent Reinhart, and Kenneth Rogoff, "Dealing with Debt," *Journal of International Economics* 96, Suppl. 1 (2015): S43–S55, <http://www.sciencedirect.com/science/article/pii/S0022199614001214>.
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6. Kenneth Rogoff, "The Stock-Bond Disconnect," Project Syndicate, March 9, 2015, <http://www.project-syndicate.org/commentary/equity-low-interest-rates-by-kenneth-rogoff-2015-03>.
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8. Maurice Obstfeld, "On Keeping Your Powder Dry: Fiscal Foundations of Financial and Price Stability," faculty paper, Department of Economics, University of California, Berkeley, June 14, 2013, <http://eml.berkeley.edu/~obstfeld/fiscalfoundations.pdf>.
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10. Lo and Rogoff, "Secular Stagnation."