Capital Productivity

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Not long ago, the exploding debt in America was headline news. But as housing values stopped falling and investment markets rallied, the debt topic got swept under the rug. Now some pundits are once again suggesting that the easy ability to borrow and the low cost of capital are leading us towards another bubble.

Getting good data on debt isn't as easy as one would think. The sources of this data, even from the government, slice and dice debt up so many different ways that it's difficult to get a clear picture. Trying to see through the fog of data overload and confusion, a reasonable view is that total debt-to-GDP in the United States was about 34% in 1982, and right at 100% in 2013. So in roughly 30 years, debt-to-GDP has tripled.

The great majority of people with worthwhile business experience strongly believe that our economy cannot maintain itself indefinitely by taking on more and more debt, that we cannot solve our economic challenges by borrowing more and more money. But how did we come across all this debt in the first place? And why has debt-to-GDP grown so much and so fast?

For centuries, the primary drivers of economy have been population growth and productivity growth.

As population grew, so grew demand for housing, food, fuel, clothing, trinkets, etc. More people required more stuff. The need for more stuff led to expanded production, which required more workers who bought more stuff. And traditionally when productivity grew, as worker's increased their individual output, they were paid more. This made more stuff affordable, which increased the need for more production, which increased the demand for workers. So for a very long time, population growth and productivity growth teamed up to keep economy humming along.

But now population growth is stagnating in many of the developed market economies. In Japan and several European countries, population is actually on the decline. This is not good. Contracting population is highly deflationary. Fewer people need fewer houses, fewer gadgets, less stuff. All of a sudden we have more supply than demand.

Declining population that results in lower consumption means we need less production. Less production means lower employment demand, which translates into lower wages and fewer consumers. A deflationary spiral can develop with people consuming less because things will be cheaper tomorrow, which reduces production, employment, demand, and on and on and on.

Because of Japan's declining population, it is the canary in the coalmine for developed market economies. Japan's economy has struggled for over two decades. In this period, they have employed all manner of fiscal and monetary stimulus to inspire people to consume, but the decline in population is an enormous economic drag.

It should be no surprise that Japan's only path to economic "stability" today is to print massive amounts of money. The hope is that extra money sloshing around Japan's economy will stimulate more consumption, which theoretically will cause inflation to rise, motivating people to buy more today before prices increase tomorrow. If people increase consumption, then an economy must produce

more. If they produce more, then employment and wages will theoretically strengthen, leading to more sustainable growth.

By printing money Japan also makes their currency less valuable, which makes other currencies more valuable, meaning what they produce is cheaper for others to buy. A lower currency historically leads to increased exports, which again, theoretically, should lead to an increase in production, employment and wages, which leads to a healthier economy.

Time will tell if Japan's central bank can actually save their economy from the dramatic structural challenge of population contraction. This is an especially important case to consider given that several European countries are facing similar demographic circumstances. Because they are mature economies with high consumption-to-GDP ratios, what happens in Japan and Europe affects economies all around the world. To maintain robust growth, the interconnected global economy needs these consumers.

Our second major historical economic catalyst has been productivity growth. Traditional productivity growth came as workers produced more widgets per hour. This provided workers with more income, more ability to consume, leading to more demand, more production, more labor, higher wages and on and on. Innovation and productivity growth also provided new gadgets that everyone needed, gadgets that increased our own individual productivity. Like population growth, productivity growth led to a growing economy. But productivity growth today may not be the catalyst it used to be.

Today's producers, the companies that make things we consume, can now arbitrage a great deal of labor globally. We have seen this as jobs moved from the more expensive developed market economies to cheaper labor markets around the world. Made in Japan was replaced by made in China and many other cheaper labor markets. This great leveling of labor and wages has partially caused the stagnation of wages in developed market economies. Stagnant wages do not lead to more demand, consumption or a naturally growing economy.

In addition to the challenge that is the great leveling of wages, innovation today looks to be destroying jobs faster than our natural economy can replace them. Robots are replacing blue-collar labor in production and inventory management environments. Control, information and communication systems are replacing white-collar jobs in factories, stores, offices and all manner of services. This job destruction process was historically balanced out by innovation's creation of new jobs, but so far the destruction seems to have eclipsed the creation of well paying jobs. This can be seen in the BLS labor numbers that show today's job growth dominated by lower paying and temporary jobs.

Productivity growth is no longer increasing wages, but rather it is allowing producers/employers the ability to manage labor costs ever more productively. The value from productivity growth today has shifted away from labor to the benefit of capital. Companies and shareholders are reaping increased profits and investment returns even as wages stagnate.

This is the new order of economy in developed markets. It's an entirely different dynamic. The legacy economic catalysts are gone. Population and productivity today are working against, rather than for many developed economies. For how long have these economic catalysts been losing their traditional power? Not coincidentally, since the early 1980s, when today's technology revolution began, which gave way to automation and modern globalization.

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To counterbalance the decline of our traditional economic catalysts, we needed a new catalyst. If you can't increase population or the wages/buying power of labor, then the most apparent path to growth is unleashing the *productivity of capital*. But what exactly is the productivity of capital?

It wasn't until 1968 that the Federal Reserve began recognizing revolving consumer credit. Prior to that year, revolving consumer credit was an inconsequential amount. But starting in 1968 the Federal Reserve considered it material, at $1.3 billion. Forty-six years later, we now have a little over $800 billion in revolving consumer credit. If the growth of revolving consumer credit had followed the growth of inflation, today it would be around $9 billion. Instead it is $800 billion. Look at how much more productive we have become with our capital.

Not long ago, buyers had to put 20% down to purchase a house. Now a buyer can do so with as little as 5% down. It wasn't long ago that with a liar loan, people could purchase a house with almost no ability to pay it back. How do we pay for college today compared to 20, 30 or 40 years ago? There was little to no borrowing for college a generation ago. And not long ago, a standard car loan had a three-year term. Today five-year terms are readily available.

In the commercial world, leverage finance, junk bonds/high yield debt, mezzanine finance, bank syndications, CLOs, CMOs, financial, interest rate and commodity derivatives —all these are ways the financial sector has increased capital's productivity. These tools have allowed financial institutions to increase their "inventory turns" of capital significantly. The Fed may not have increased our money supply materially, but a significant increase in the velocity of capital has provided similar economic stimulus.

The productivity of capital has also increased as the cost of capital decreased. The prime rate of interest to borrow money peaked out at 21.5% in 1980. The current prime rate is 3.25%. What happens when the cost to borrow goes down? The lower the borrowing costs, the more we can afford to buy on credit. The lower the borrowing cost, the more we can consume.

When we take all these new fangled ways to increase capital's productivity, what it really means is that we have increased the amount of debt on all our productive assets. We've increased debt-to-GDP from 34% in 1982 to 100% in 2013. As economy lost its traditional catalysts of population and productivity growth, increasing the productivity of capital allowed us to maintain our lifestyles.

But for how long can economy depend on capital as its primary catalyst? The events surrounding Lehman's collapse seem to suggest we have come close to that end. At some point, we must find a new organic economic catalyst. We can't borrow and print ourselves to "prosperity" forever, nor can we depend on population growth and productivity growth to inspire economy.

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