THE ECONOMIC SITUATION

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The Money Tree and the Rest of the World

Quivering financial markets in a post-taper economy remind me once again to always follow the money when trying to predict where this world is headed. New Fed chair Janet Yellen spoke truth to power when she testified in February that the Fed had stopped watering the money tree and that US labor markets were a long way from normal.

But the world spoke back with its version of truth. In more fruitful days when the money tree was yielding bucks at a fast pace, investors looked to the developing world for yields well above the Fed-preferred zero point. Foreign currency values rose relative to dollars as investors fattened their portfolios, and foreign equity markets soared. The weaker dollar then enabled holders of other currencies to buy more dollarized goods. It all seemed like a dream come true, at least for holders of money-tree dollars.

Then tapering reversed all this; the money tree wilted a bit. Investors began to sell their foreign equities and buy dollars. The dollar strengthened and interest rates briefly fell a bit. Home currencies weakened in developing countries, prices for imported goods from the rest of world

went up, and a dose of taper-driven inflation entered the developing world. Political instability followed.

All because there was less water for America's money tree? Well, that has to be part of it. There are lots of moving parts in this story.

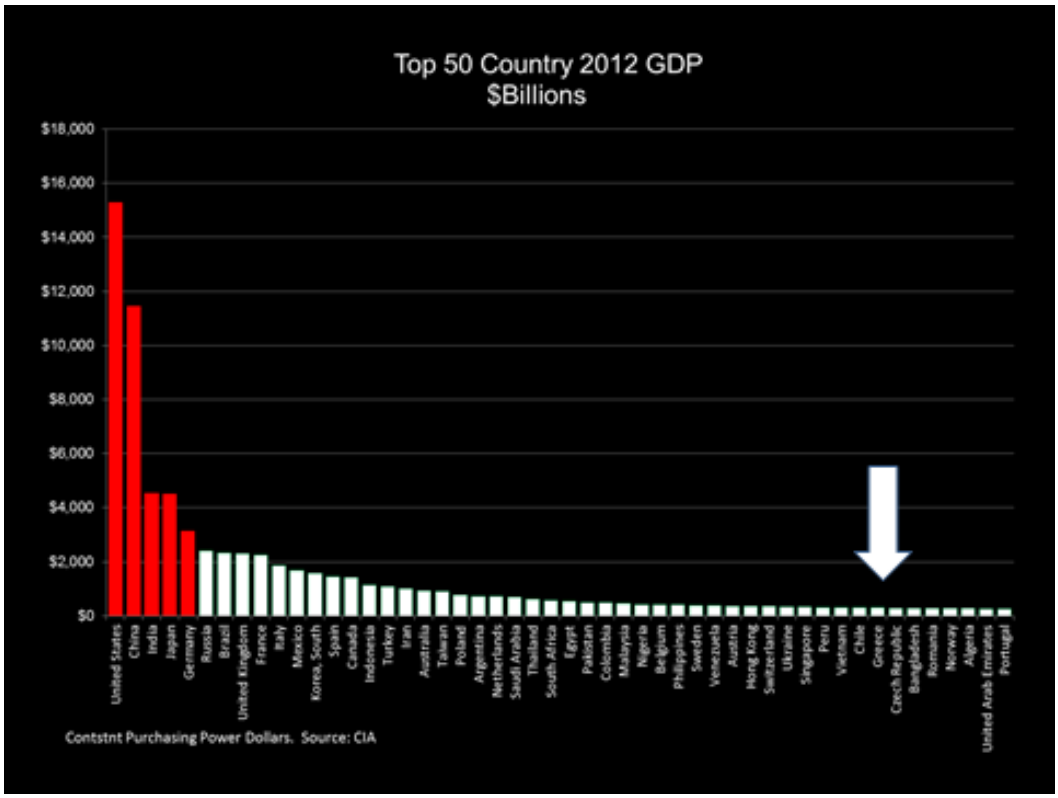
We are left with the question and Janet Yellen with the challenge: what will happen as other central bankers cut off the water that feeds their money trees?

What in the world is going on? Better said: what is going on in the world?

To get a handle on how the world is doing, I first provide data on the level of GDP for the 50 largest world economies. A quick glance tells us two things. First, the US economy is massive. Second, China is no slacker. A longer glance and a few back-of-the-envelope calculations tell us that the economies of the big five, when added together, yield a total that is just as large as the remaining 45 put together.

Of course, this statement can be reversed. The other 45 added together are equal to the total of the big five's GDPs. Putting some flesh and bones on this, we can then say that when the developing world as a group begins to cough and sneeze, the big five can tell.

Wilting money trees matter at home as well as in the larger world.



Before leaving this chart, I will call attention to the arrow pointing to Greece. I do this to emphasize the smallness of the Greece economy relative to the rest of the world. So why does a Greek default matter all that much? The answer relates to who holds Greek debt and how much debt there is out there. It turns out that the small Greek economy puts out a huge amount of debt. And much of the debt is held by German banks.

So now we understand perhaps why Germany is so interested in getting the Greeks back in line.

Coughing? Where's the weakness?

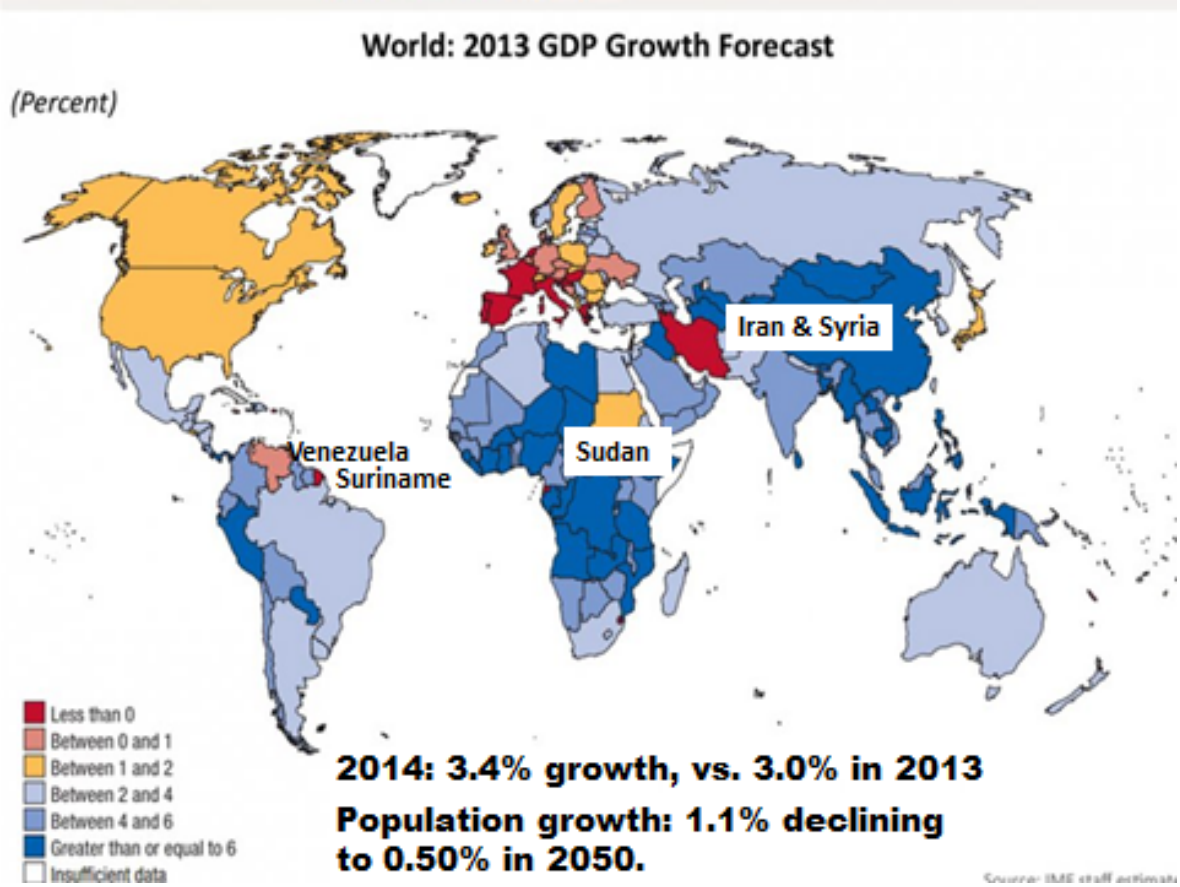
The chart to the right displays the Supply Chain Management Institute's January 2014 manufacturing index for 25 major manufacturing economies. In this one-month snapshot, 50 is the neutral point. Any value less than 50 shows contraction. China, France, and Russia fall into the slowing category. Values greater than 55 are for the stronger economies, with the United Kingdom leading the pack. The red bar tells us that, taken together, the economies of the world are expanding.

Going beyond a one-month snapshot, the next chart shows the IMF's recent calculations on world GDP growth for 2013. Blue is the desired color in this, and there's a lot of it. Almost everywhere, at least, except in the developed world. Red means negative GDP growth. Tan is positive but weak.

The chart's bottom line gives projected world GDP growth for 2014 along with expected population growth. World GDP growth is a much brighter number than the forecast for the developed world. 3.4 percent is huge relative to 2.6 percent, the expected growth for the United States.

With population growth well below GDP growth, we get significant increases in world per capita GDP.

In spite of all the tough times we observe, life, on average, is getting better.



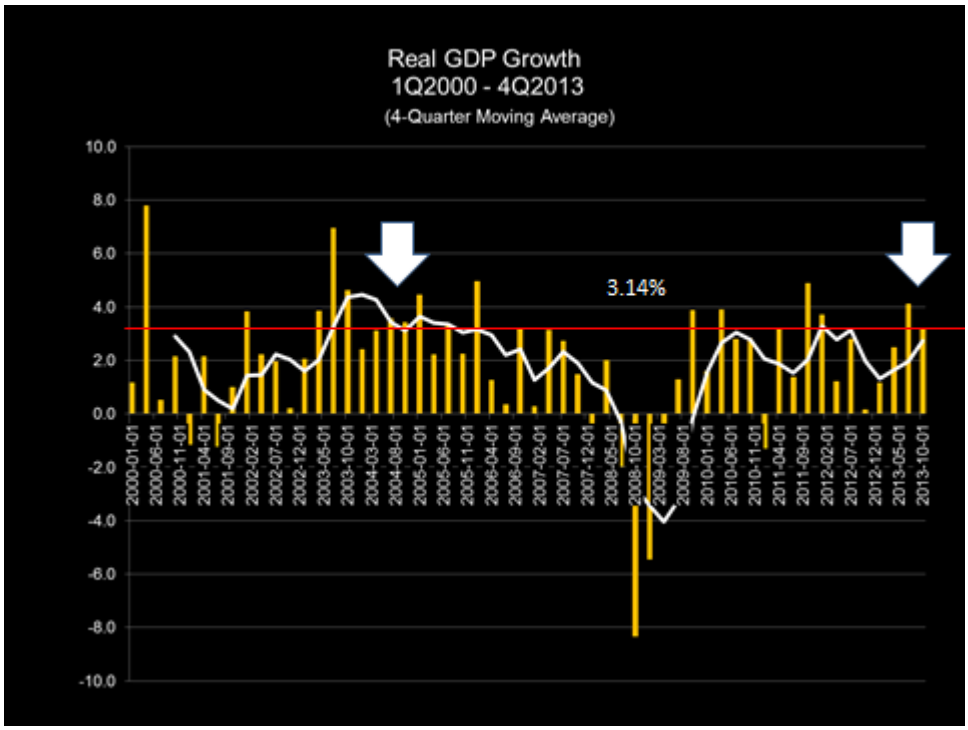
The United States: Off the crutches, but not running

Recent US GDP growth data are downright encouraging; in fact, just a bit too encouraging. Growth for 3Q2013 (4.1 percent) and 4Q2014 (3.2 percent) gave a real shot in the arm for the year just ended and seemed to signal that the Great American Bread Machine was almost ready to run again.

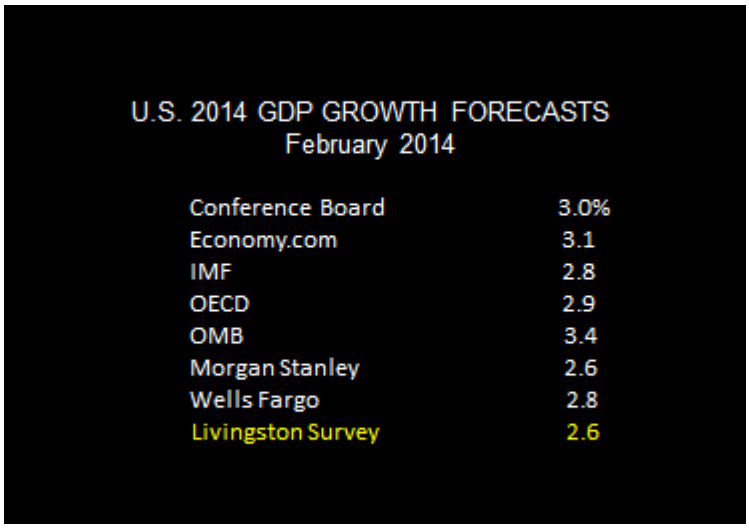
But not quite.

As it turns out, those strong numbers were lifted by inventory accumulation, too many goods on the shelf and new cars on the lots. When that happens, we can predict with certainty that future growth will be challenged as sellers attempt to balance supply and demand. Then, with a heavy sprinkling of January/February ice and snow, there is even more reason to expect weak data for 1Q2014.

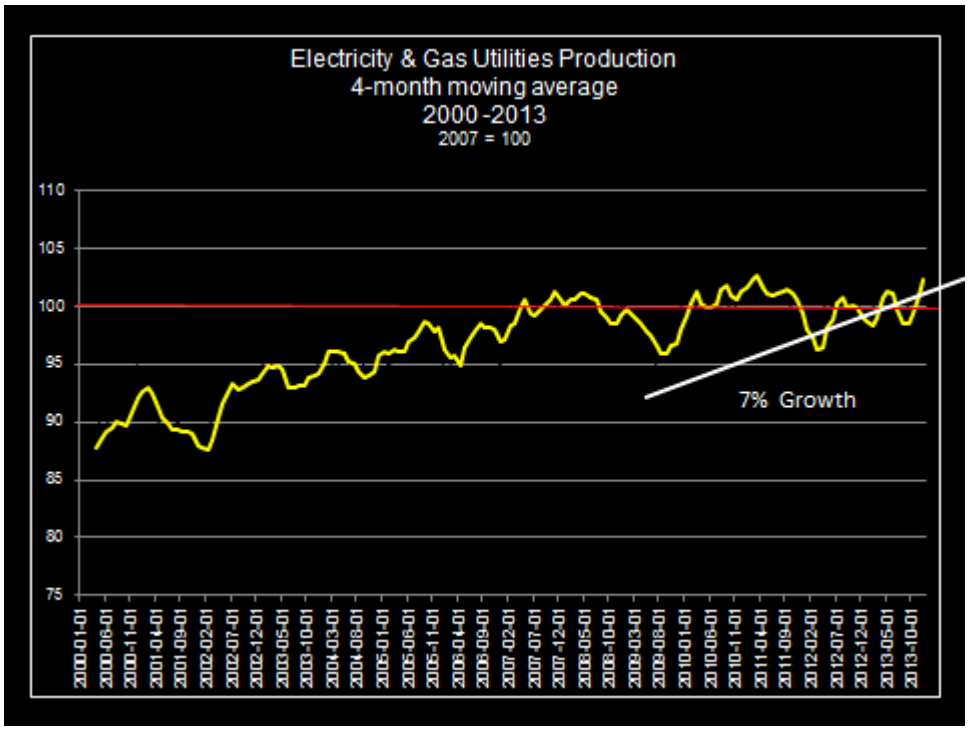
GDP data in the next chart show those strong quarters against a long-run average line of 3.14 percent. Also shown is a white four-quarter moving average. There's no doubt about it; the white moving average is headed north. And that is a good sign, good enough, along with some other data, to suggest that intensive care is way behind us, but it's still a while before we enter a marathon.



Data gathered from other forecasters, seen next, strongly suggest that 2014 will outdo the past year by more than a smidgen. Probing deeper into the stack of forecasts tells us that the year will look better as it progresses. By the time 4Q2014 rolls around, we should be seeing three percent or better.



We can find another note of optimism in US energy output as measured by a Federal Reserve index for electricity and natural gas production. The optimism is seen in the slope of the white ray I have placed across the 2013 data points.

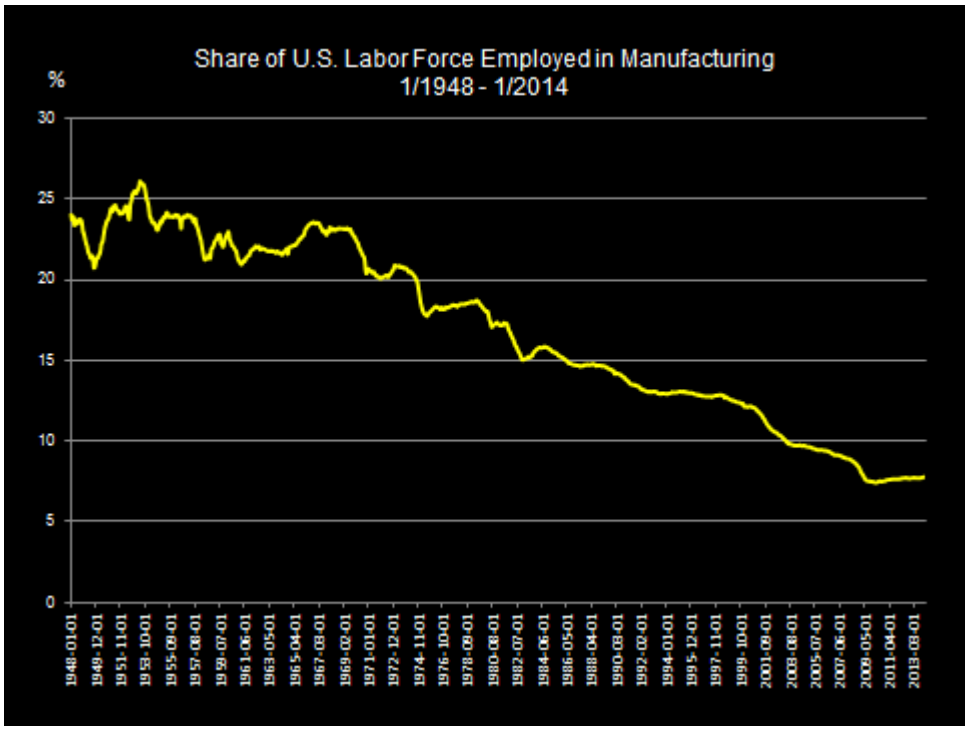


But given the array of the points, cautious optimism is the better interpretation.

Aside from energy, there is encouraging news seen in retail sales, housing starts, and even in construction employment growth. Still, when considered together, we have a picture of an economy that is walking a bit faster, not running. There is still a heavy dose of regime uncertainty chilling decision makers who might otherwise be willing to put more cash in the game, of which there is plenty sitting on the table.

Does Anyone Work Here?

Having spent 15 years in the industrial machinery business as a young man, doing work that put me in constant touch with all kinds of manufacturing, I still enjoy walking through industrial plants and speaking with people who work in them. Anyone making those visits today will have plenty to observe. The level of sophistication one finds is truly amazing. Indeed, almost as amazing as the absence of people. As the next chart shows, the share of the workforce now employed in manufacturing has fallen to around 7.5 percent. Some 40 years ago, the share stood at 20 percent. Meanwhile production levels have risen apace. It's gotten harder to find people in plants for conversation.



Despite the fact that manufacturing shipments have grown rapidly, it is still the case that manufacturing's share of GDP in the United States and most advanced countries has fallen. As shown in the next chart, Korea is the exception. All the other economies in the chart are becoming more service oriented.

The current manufacturing picture suggests that given current technology, we have hit a minimum workforce share to keep the wheels of industry turning. Further thought on the matter suggests that could clearly *not* be the case. Put another way, there is still room for shrinkage.

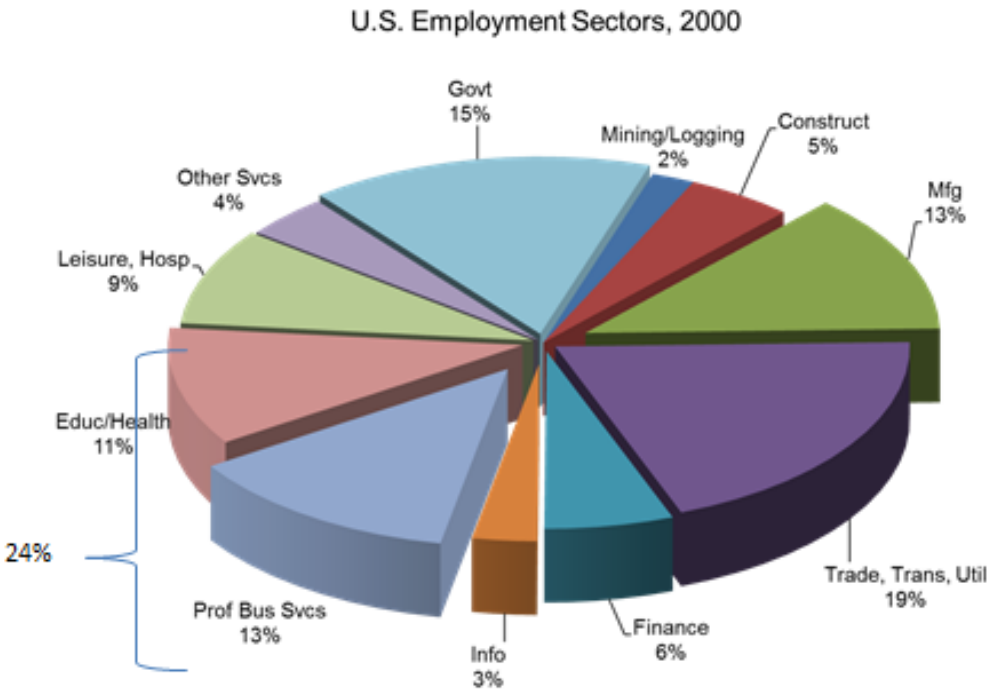
Information technology that drives the cost of contracting and managing is the big unknown in all this. As I have pointed out before, the US economy, especially the manufacturing economy, is disintegrating. Picture a large paper producer, for example. In decades past, that producer would have its own fleet of trucks, timber operation, steam-generated electricity, internal shop for major repairs, large engineering department, finance department, human resources, and distribution and warehousing operations, all as part of one paper-producing firm. Today, that same paper producer contracts out for transportation, logistics, engineering, energy, heavy maintenance, and for some finance and personnel services.

As contracting costs have fallen, the firm has disintegrated. Dramatic improvement in information technology has been the driver. The result? A smaller share of the workforce is employed in paper manufacturing, but more paper is being produced.

We can see disintegration effects in the next two pie charts. Before looking, let me emphasize that the underlying data for these come from payrolls. Some workers are omitted. For this

reason, the keen reader will see quickly that the 2013 share employed in manufacturing is 9.0 percent, not the 7.5 percent shown in the earlier chart of manufacturing employment across the years.

I offer two pie charts to consider. One shows US employment sector shares for the year 2000. The second is for 2013. I call attention to manufacturing and professional business services in both charts.



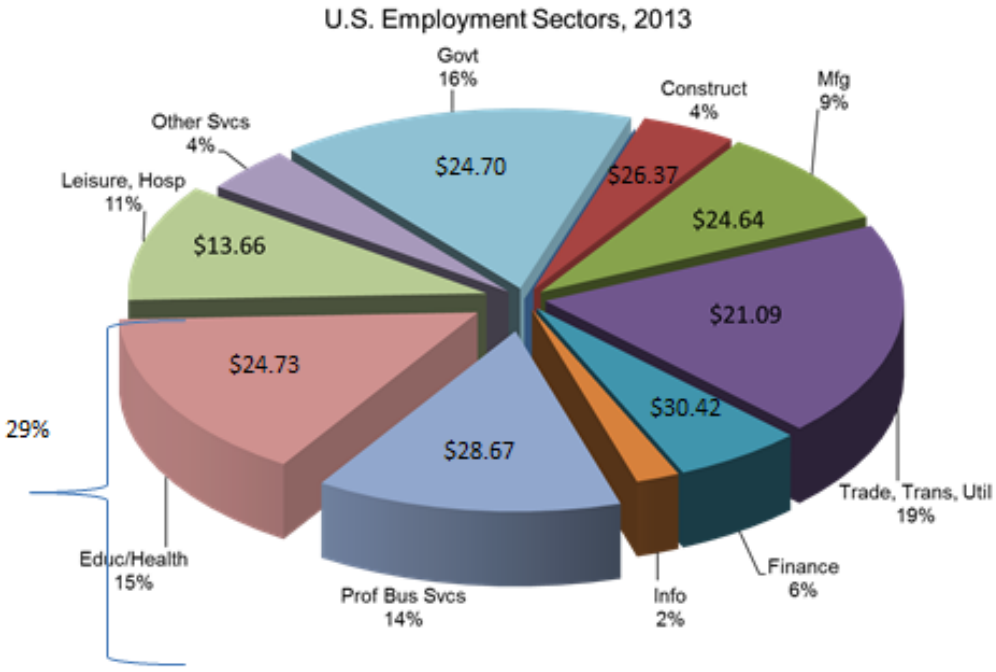
Notice that for 2000 manufacturing's share was 13 percent; professional business services was 13 percent. Now look at the sum of education and health and professional business services for 2000. The total then was 24 percent.

A quick comparison with the 2013 charts shows that manufacturing is down to nine percent. Professional business services is up to 14 percent, and the sum of professional business services and education/health is now 29 percent.

A large part of professional business services contains what was once manufacturing employment: trucking, logistics, accounting and payroll services, consulting engineering, and contract maintenance services, for example. Instead of disintegration, the growth in the health/education share is driven by a rapidly aging population.

Now, while focused on these two pie charts, consider the average hourly wage in each sector. To some surprise, wages are higher in professional business services and in education/health

than in manufacturing. Of even more interest, perhaps, is that there are large differences in wages to be found as one scans the pie, but there are also sectors that look pretty much alike.



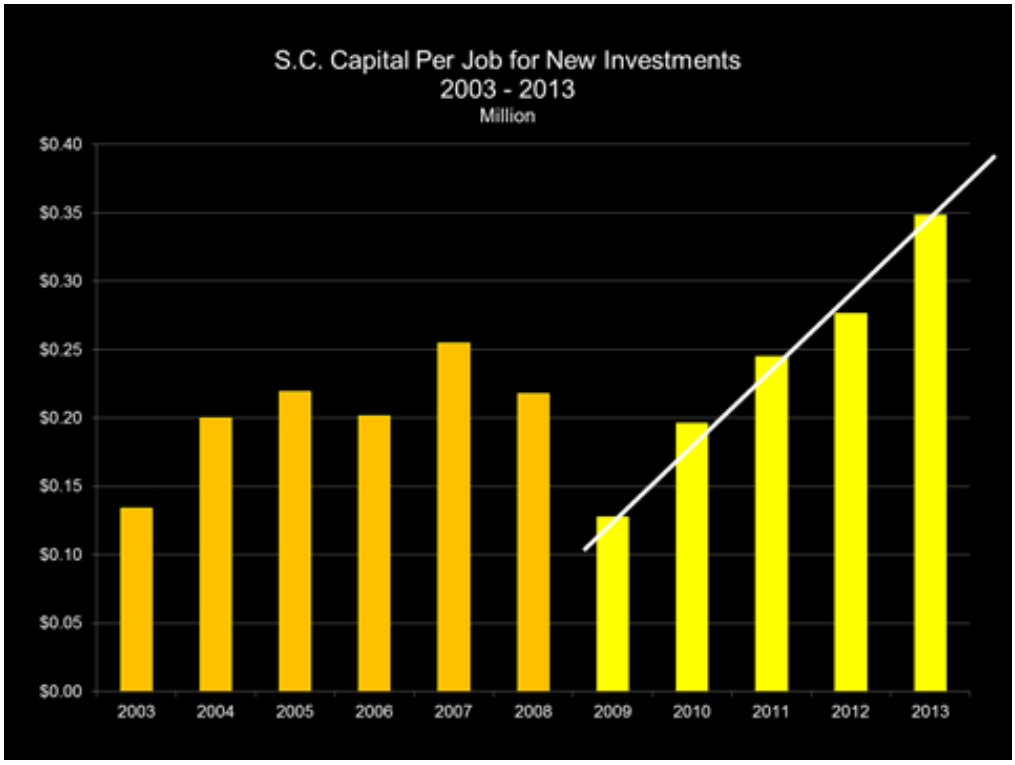
At the current margin, employment shifts from manufacturing to services will on average bring higher, not lower, wages. We see the same outcome when the shift destination is construction or government. Remember, though, we are seeing averages. There can be large variations around these average numbers.

Fewer workers and more capital

Alas, there is always more to the story.

Disintegration has yielded a lower count of workers in manufacturing when the Bureau of Labor Statistics adds up sector shares for the US economy. But within a given manufacturing plant, even after disintegration has occurred, there are still relatively fewer people required to produce the same amount of output. Why? More capital per worker. The additional capital may be in the form of more sophisticated machinery, information technology, or robotics, but more capital there is. More capital to work with means the typical worker must have more human capital to bring to work. All this suggests wages will be higher in the same industry in newer plants than in older ones.

Evidence on the growth of capital per worker is shown in the next chart. I built this chart using data from the South Carolina Department of Commerce that give for various years the total number of dollars invested in new industrial plants in the state and the total number of workers employed in those new expansions. The data are for 2003–2013.



As indicated here, a sharply positive trend begins in 2009 and continues through 2013. From 2003 through 2008, investment per job was bouncing around a mean of $200,000. Of course, we are not comparing apples here. Industry mix is changing for each year. But for this small sample—South Carolina—and for just 11 years, we can still infer that, in general, more capital per worker is being put in place. I offer this as a working hypothesis.

Is the Knowledge Economy Still with Us?

With manufacturing disintegrating and sectors like professional business services expanding, and with unemployment rates for people with bachelor's degrees better running at 3.3 percent, what can we say about the knowledge economy?

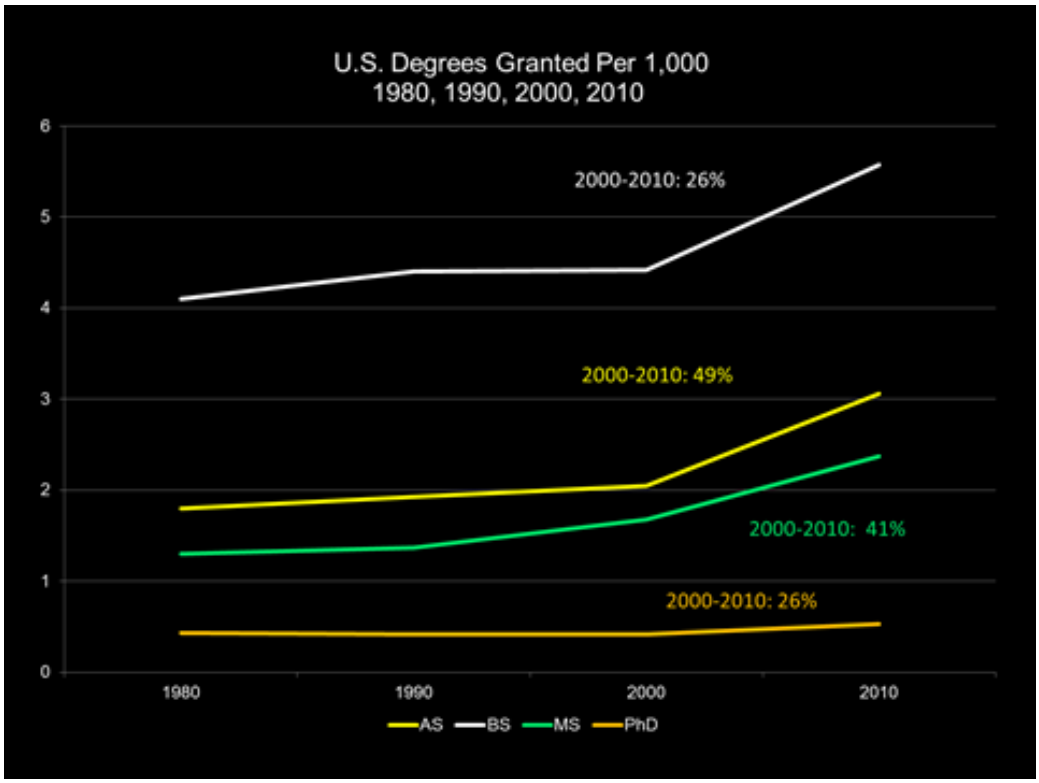
Or is this just a made-up concept without empirical content?

To put flesh and bones into the picture, it is useful to offer a definition of what is meant by the term. This is shown in the figure to the right. The highfalutin words there would make us think that knowledge-based economies just emerged with the turn of the 21st century. No way. Economies have been based on knowledge from the very first time a cave dweller traded flint for hides. Knowledge about the location of flint and how to prepare hides were central to harvesting gains from trade. We might say “gains from knowledge.”

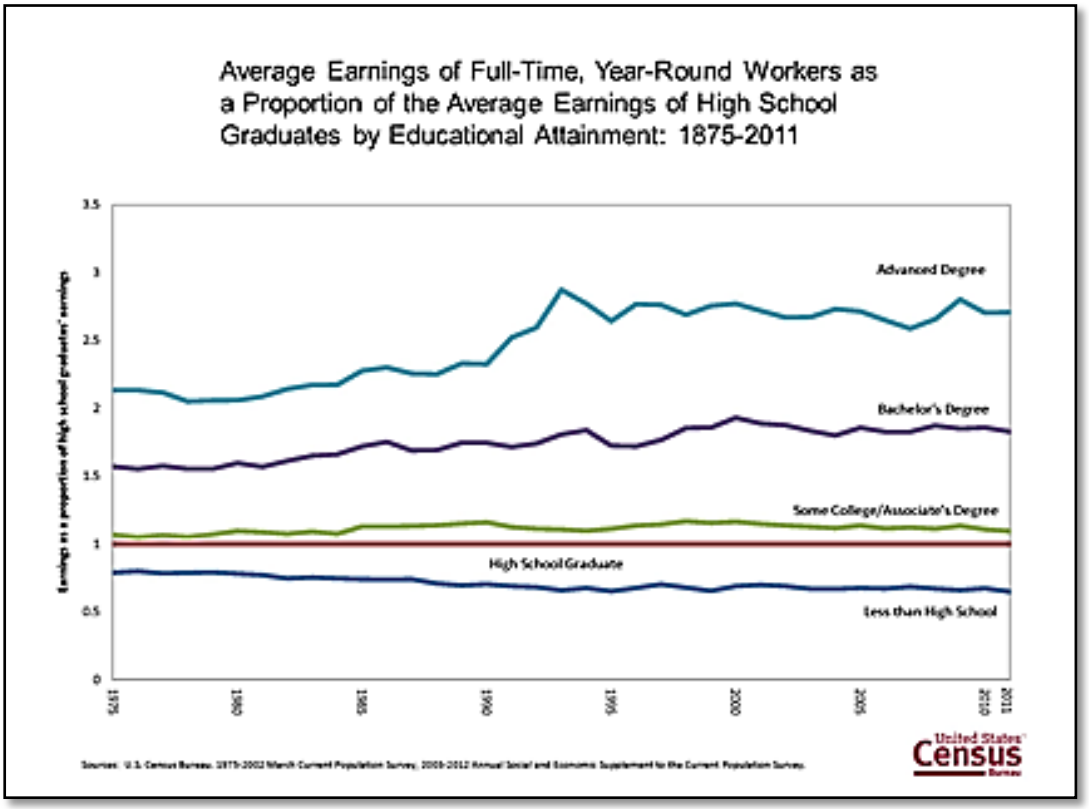
But let’s leave the cave dwellers, focus on recent times, and see if we can find evidence that identifies a quickening in the pace of the demand for better trained brains.

The next chart shows the count of college degrees at different levels granted in the United States for four years, 1980, 1990, 2000, and 2010. A quick look shows a sharp uptick (41 percent) for master’s degrees across 2000–2010. A 49 percent increase is seen for associate degrees across the same interval. The economy is demanding more people with professional degrees to cultivate knowledge and more qualified workers to produce knowledge-laden products. The increases in bachelor and PhD degrees are at the same, much lower, level.

These data seem to suggest that the pace of the knowledge economy accelerated in 2000.



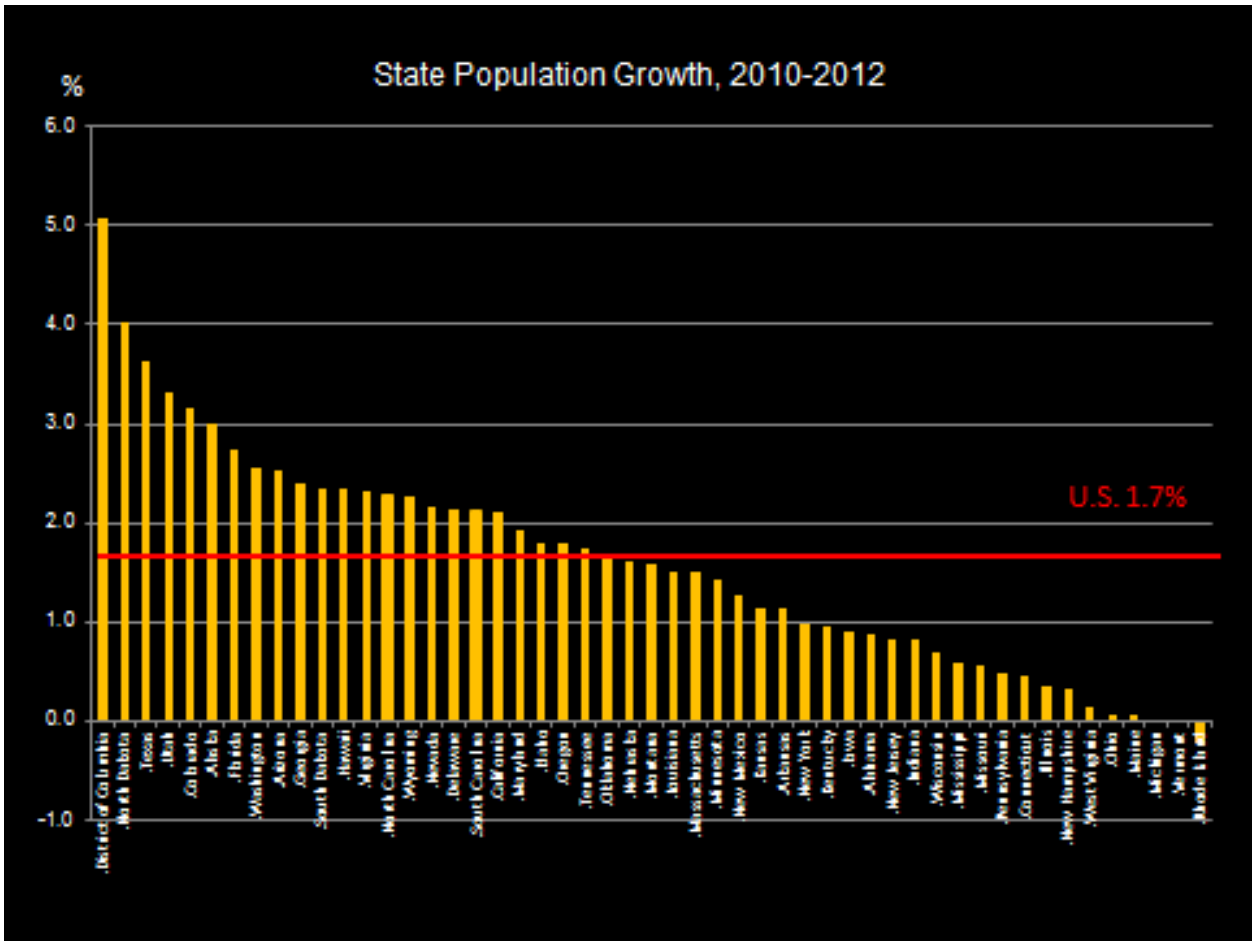
I probe a bit deeper with the next chart, developed by the Census Bureau. This shows average earnings for workers with different levels of educational attainment relative to the earnings of workers with a high school degree. A more rambunctious knowledge economy should be rewarding workers with the right stuff. As we see, the large jump that begins around 1990 is seen for people with advanced degrees. This sort of squares with the degree production data just observed. There is some gradual gain observed for bachelor degree holders. Those with less than a high school education lose ground.



Do They Bring Brains?

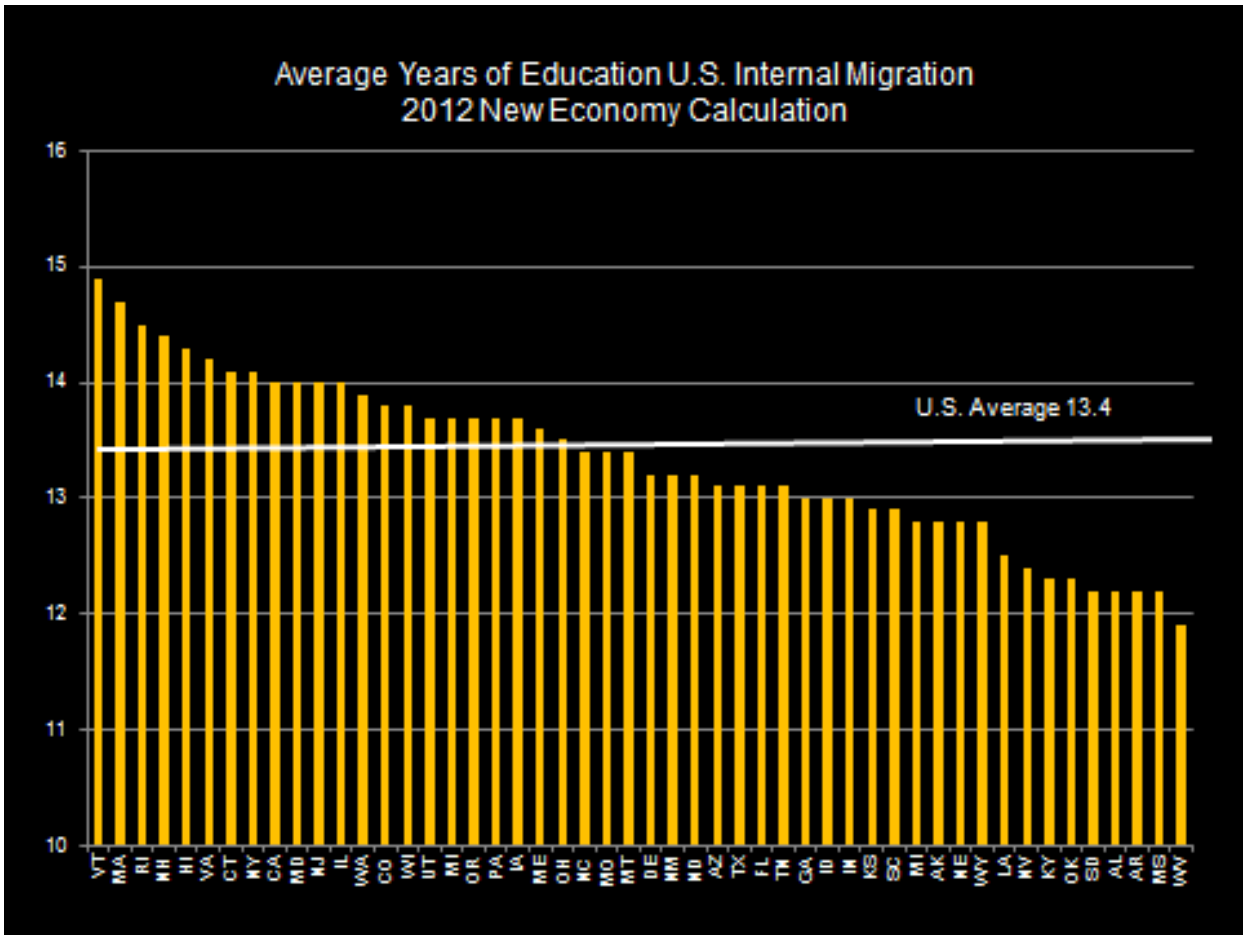
Everyone is looking for prosperity, as they define it. And sometimes the search requires movement to other pastures. We capture the pace of this in the next chart, which shows state population growth from 2010–2012. The average across the states is 1.7 percent, and as might be expected in a normal world, about half the states exceed the average. Leading the pack is no state at all. It is the District of Columbia. North Dakota, that great energy-producing state, comes in second. By eyeing the states with slower growth, we can identify which states seem to be supplying the growth to the gainers.

But do the movers bring a high level of educational attainment with them?



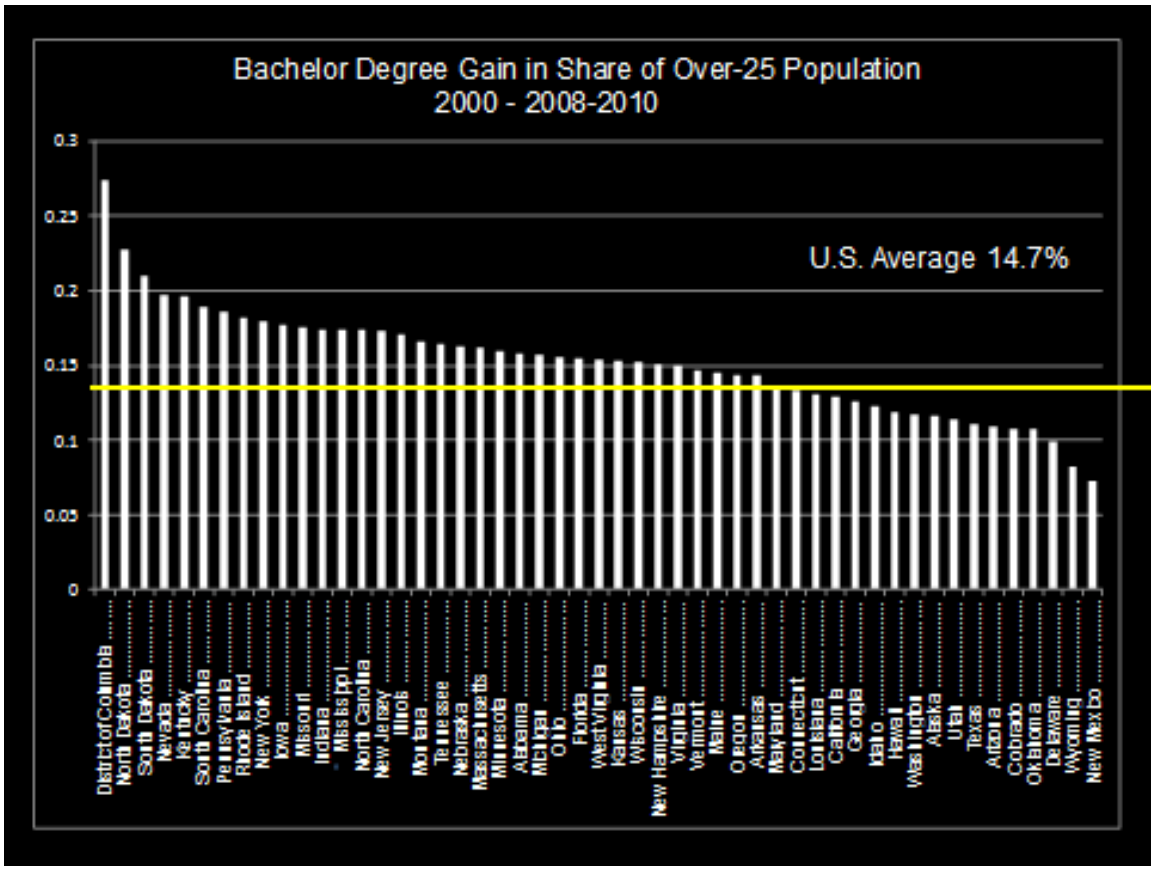
Migration and educational attainment

The next chart helps to answer the question. Here we see the average number of years of schooling completed for the migrating population entering each state based on the 2009 census. The average attainment across all states was 13.4 years. The data here implicitly identify the heavier knowledge economies, which is to say those states that attract more highly educated people. The New England states lead the pack, with a sprinkling of other regions represented in the top tier.



But while migrating adults may lift the average level of educational attainment (or reduce it!), there's another way to change the average. The old fashioned way. Grow your own.

The next chart shows the effects of both these activities. Here we see the 10-year gain in the share of the state adult population with a bachelor's degree. Interestingly enough, DC wins again. Recall, DC was the "state" with the largest population growth. It is interesting to see North Dakota, South Dakota, Nevada, Kentucky, and South Carolina at the top of the chart. It's a mixed story, to be sure, a combination of migration and educating young people who then choose to stay in their home state.



Read a Good Book Lately?

Do you ever get your hands on a book you just can't put down? I put Mark Halperin and John Heilemann, *Double Down: Game Change 2012* (Penguin, 2013) in that category. This outstanding piece of work provides an almost unbelievably detailed account of President Obama's 2012 election success. With masterful writing and evidence of exhaustive research, the book follows *Game Change*, the authors' 2010 best seller that documented the election that brought Mr. Obama to the White House. I recommend this one for pure reading pleasure and for gaining a new appreciation for our evolved high-tech and high-cost presidential election process. On finishing the book and thinking about the ever-repeating election cycle, I found myself wondering when does a sitting president find time to govern? (I resist the temptation to address that question.)

Not in the same category with Halperin and Heilemann, Ian Bremmer's *The End of the Free Market* (Portfolio Trade, 2011), is well worth reading. In this thin but solid book, Bremmer takes a fresh approach in his examination of how the world is organized. He does not follow the footprints of Marxist prophets who run funeral notices for free markets and enterprise brought on by their own dynamics and failings. Instead, Bremmer focuses on the emergence of enterprises owned or managed by governments that form the dominant landscape in a growing number of industries. For example, he points out that between 2004 and 2008, 117 state-

owned and public companies from Brazil, Russia, India, and China joined the ranks of the Forbes Global 2000, the world's leading firms, and that 239 US, British, and German firms slipped off the list. Mostly in natural resources and especially in petroleum products, these state-operated enterprises come equipped with unique powers to compete and also with political baggage that may darken their long-term viability. Bremmer's book adds significant fuel to fire discussion of the prospects for free market capitalism.

I offer a final recommendation to consider. Tyler Cowen's latest, *Average is Over* (Dutton, 2013), is a bit more optimistic than his earlier *The Great Stagnation* (Dutton, 2011). Both books address the newly emerging economy and world of work, a world that seems to exhibit high demand for knowledge-ready creative individuals and for folks at the other end of the spectrum who will perform routine services work. In Cowen's view, the middle of the labor force, as we have known it till now, is disappearing. Yes, economic growth may be moving into permanent low gear, but while shifting down, the demand for labor will be reshaped. The new world is a high-tech world, one with smart machines and high connectivity. Smart people will combine with smart machines to produce lots of stuff. People who are not so knowledge-rich will do yeoman's duty in the new world of work. Provocative throughout, to say the least, Cowen's book is at its best toward the end when he stakes out forecasts about the newly emerging world and how people will adjust to it. It's a great book for small book clubs to use for an evening's conversation.