

Growth and the Role of Economic Policies

Money Marketeers of New York University, Inc.

Down Town Association

New York, NY

March 22, 2016

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President and CEO
Federal Reserve Bank of Philadelphia



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Introduction

Good evening. It is a pleasure and a privilege to have the opportunity to engage with the distinguished gathering of financial professionals and leaders that Money Marketeers represents.

Thank you, Guy Haselmann, a proud Fightin' Blue Hen from the University of Delaware, for the invitation.

Overview

I am going to spend my time this evening talking about the prospects of long-term economic growth in the U.S. and the role of economic policies — monetary policy included — in affecting those prospects. But before I start, let me say that my remarks today reflect my own views and not necessarily the views of my colleagues on the Federal Open Market Committee (FOMC) or in the Federal Reserve System.

As you know, the recovery from the end of the Great Recession was slow, with the pace of business fixed investment and job growth remaining modest for some time. Thankfully, job growth accelerated over the past 18 months, but the pace of business fixed investment still remains modest.¹ And while the unemployment rate has fallen to levels that are seemingly consistent with full employment, this occurred in tandem with a decline in the labor force participation rate.

The ratio of employment to working-age population has yet to recover to its precrisis level. Looking forward, our forecasts of real economic growth over the next two to three years remain subdued.

What is the underlying cause of this slow economic growth? One possibility is that recovery from the wrenching global financial crisis we experienced in 2008–2009 is a slow process.

There is merit to this view: Economists tell us that a recovery from a bad financial crisis can take a long time, as long as seven years on average.² So, it is possible that what we are experiencing is one of these slow recoveries. In this case, a pickup in the rate of economic growth may be around the corner as the shock of the Great Recession fades away.

But for this evening, I am going to be a dismal economist and entertain the possibility that economic growth may remain sluggish for some time to come. I am going to speculate on why that might be the case and what policymakers can do to improve the economy's growth prospects.

One topic that I will spend a few minutes on is the important role our education sector plays in promoting long-run economic growth. As you know, I have spent most of my career engaged — at various levels — in the delivery of higher education. This has now become a significant national policy issue, garnering great debate about whether the sector is keeping up in a world driven by rapid global integration and disruptive technological change. It is also an issue that concerns the Fed because of its connection to the problem of nonperforming student loans.

Let me say right off the bat that the long-term growth performance of our economy is a very big deal. For example, you must all be aware of how scary the current projections regarding Medicare and Medicaid look. If these expenditure trends are combined with a significant drop off in the rate of GDP growth, the day when investors begin to seriously worry about the return on U.S. Treasury securities will be upon us sooner rather than later.³

Europe's sovereign debt crisis should stand as a stark reminder of what can happen to a nation's borrowing capacity when investors begin to lose confidence in the government's ability to pay its bills.

Technology and Capital

Let me first talk about what we know about the basic determinants of long-run economic growth, which I will take this evening to mean sustained growth in the material standard of living for ordinary people. There is a great deal of scholarship on this topic by both economists and historians. In an accounting sense, it all comes down to two factors: technology and capital.

By technology, I mean our continually improving ability to produce existing goods and services at lower cost as well as our ability to invent new products that satisfy previously unmet human needs. Historically, the trend toward greater and greater efficiency has been intimately tied to advances in science, engineering, and medicine.

I will not say much more about this trend this evening because I don't see any slowing in the speed with which the frontiers of human knowledge are expanding. If anything, new territories for scientific exploration are opening up at a faster pace than ever before. So, if we are hunting for the causes of slow economic growth, this is not where we should be looking.

So, let me then turn to the other factor: "capital." Thanks to Thomas Piketty's recent book, *Capital in the Twenty-First Century*, capital is now a fashionable word. But I am going to use it in the prosaic way economists normally use it: It's the total of the myriad investments businesses, people, and governments made in the past to turn productive knowledge into *actual* stuff. The existing stocks of equipment, structures, and software are well-known examples of capital in this sense. I will call all of this "business capital."

There is also another form of capital — embodied in people — that is also very important: This is the time and resources that a worker spends in acquiring knowledge in a specific field — say nursing or auto repair — and the resources that businesses spend to provide on-the-job training to workers. We call all of this “human capital.” Economic growth, which is measured as growth in the GDP per worker, results from growth in technological efficiency and growth in the stocks of business and human capital per worker.

The Limits of Monetary Policy on Long-Term Economic Growth

All of this should be familiar territory. But let’s think what this accounting means for monetary policy. How does monetary policy affect long-run economic growth? Well, its effects can only enter via the calculus that determines how much firms invest in business capital and how much firms and people invest in human capital. This makes sense. As monetary policymakers, we affect interest rates in financial markets, and rates of investments depend on interest rates.

But economists tell us that over the long haul, these rates of investments cannot be affected much by monetary policy, if monetary policy succeeds in keeping inflationary expectations and actual inflation stable and equal to each other.

In this happy scenario, interest rates in financial markets will, on average, be just right to neutralize the rise in prices. The fact of inflation, then, will be unimportant to the investment decisions people and businesses make.

So, this is the first point I want to make this evening. *Good* monetary policy — meaning monetary policy that delivers on our price stability mandate — by virtue of it being good, will not affect long-term economic growth. Of course, it goes without saying that *bad* monetary policy can derail the economy and reduce economic growth.

Here's another way to put it: There is a growth potential out there, and the best that monetary policy can do is to help achieve that potential, but it cannot affect the potential itself. So, there are limits to the effectiveness of monetary policy that we must be careful to respect. In real time, it is always a challenge to determine if the economy is at its growth potential or if it is operating above or below it. This uncertainty is at the heart of the genuine disagreements that members of the FOMC can have regarding the stance of policy.

Now that I have emphasized the limits of monetary policy, let me now emphasize that there is plenty of scope for economic policies — broadly interpreted — to improve the long-run performance of the U.S. economy. So, if long-term economic growth is a concern, there is a great deal that policy- and lawmakers can do to make our economy function more productively and to cause economic growth to pick up.

Determinants of Economic Growth

To put my thoughts here in some order, I wish to say more about the determinants of long-term economic growth. The two factors I mentioned a few minutes ago — technology and capital — are great starting points if the goal is to measure the contribution of different factors in accounting for economic growth.

For instance, this accounting tells us that a country with a low standard of living must have inferior business technology and low levels of business and human capital. This is a start, surely, but the accounting does not tell us *why* this is the case.

It turns out that the *why* remains a bit of a mystery, although much has been said and written about it. For my purposes, I will call this final determinant of economic growth “fair competition.” By this I mean an environment in which the economic playing field is level and in which every individual and business has a decent shot at economic success.

You should have no trouble recognizing this final determinant. In this country, we call it “the American Dream.” Economists, as usual, have a more prosaic word for it; they call it the “free enterprise system.” They have taught us that barriers to free enterprise are the main reasons why many countries remain mired in poverty.

The technical knowledge needed to improve the standard of living is available — typically freely — but institutions that support fair competition are lacking in many countries. And the incentives to improve technology and to invest in business and human capital are seriously blunted. So, it is the combination of technology, capital, and fair competition that keeps the economic engine running in good order. If you think in these terms, you will know where economic policy fits into the big growth picture; it fits in primarily to ensure fair competition.

This is a fairly abstract view of economic policies, but if you think of some of the landmark laws in this country — antitrust laws, insider-trading laws, and IP protection laws, for instance — you would agree that it is a point of view that resonates. You might even argue that our Founding Fathers devised our Constitution to ensure fair competition. But let me give you an example of another sort of policy, one that casts a different light on the idea of fair competition.

We live in an increasingly globalized world, and one facet of competition is the competition between nation states. Countries determine national policies to further the welfare of their citizens, but entities in other countries are indirectly affected by these policies. If corporate tax rates are lower in Continental Europe, U.S. businesses have an incentive to locate their profit centers abroad and to “store” their foreign earnings abroad, too.

How should American policymakers respond to these incentives? What does fair competition mean in this instance?

Well, you know how our government responded: by threatening dire consequences for corporations that relocate for tax reasons. But perhaps lawmakers should ask if the problem is just a bunch of errant corporations or if it is a tax code that is not serving the interests our people?

In this instance, I think fair competition means that our government should compete with other nations to offer a tax code that reduces deadweight losses and improves efficiency.⁴ We know that our current tax code is far from an optimal one. This is low-hanging fruit. If we can offer a more efficient tax system to our citizens, our economic growth will pick up, for sure.

A Rising Mismatch

I am now going to talk a bit more about economic growth and human capital because this is a topic that is close to my heart and because it may hold a key to our slow growth.

As you are aware, there is lot of anxiety regarding the economic prospects of our young people. If your children are adolescents or young adults, you may personally relate to this anxiety. Economists tell us that the college premium has risen substantially over the past three decades.

A worker who has a high school degree at most can expect to earn substantially less than a worker with *some* college under his or her belt. At the same time, although more and more high school graduates are attempting to attend college, the fraction earning a college degree has not risen much at all. This results in college completion rates that decline over time.⁵ This leaves more young people saddled with college loan debt, no degree, and without a higher-paying job to help pay off the loan.

This issue has led our administration to call for efforts to improve college completion rates as well as the access to, and the quality of, a college education. They hope that such initiatives

will help more young adults find gainful employment in an increasingly knowledge-based economy.

The trend of a declining college completion rate is troubling on several dimensions. For instance, why are more students dropping out when there is much to be gained from earning a degree?

One reason could be that the average high school curriculum is not rigorous enough to prepare students for college. One can observe this possibility by looking at the nation's low proficiency levels in reading and math among 17-year-olds. Another reason could be that many students who pursue a college degree do not feel — rightly or wrongly — that the average curriculum will help them find future employment.

Be that as it may, the facts seem to be pointing to a rising mismatch between what our education sector offers to students and the skills, training, and knowledge our business sector needs more and more. And this disparity can have a significant impact on the overall health of our economy. But the word “mismatch” suggests that businesses always know the kind of workers they want but cannot find them. Is there any evidence of this? Certainly, there is anecdotal evidence.

I have heard employers complain about vacancies they cannot fill because of the lack of a qualified applicant pool. So, perhaps we need to try new ways of addressing this issue. For instance, in South Carolina, regional manufacturing firms came together — out of need — to develop the Apprenticeship2000 program that trains young adults in Mechatronics, a multi-disciplinary field of engineering.

These apprenticeship programs that combine some study with on-the-job training have a significant impact on the lives of workers and the economy but have had a limited application here in the United States. They are far more prevalent abroad.

In an assessment and cost-benefit analysis of the Registered Apprenticeship program in 10 states, Mathematica Policy Research estimated that, on average, those who completed a Registered Apprenticeship program — versus those who did not — could expect to be compensated around \$250,000 more over their lifetime, including benefits.⁶ We can and should expand upon these programs. So, I think the mismatch between what our education sector offers and what employers need is indeed real. And it is probably one reason why our economic growth has been slow in coming out of the Great Recession.

Here is the problem: Economists tell us that a mismatch between supply and demand for a particular good, service, or skill should not be a cause for concern. In a market-based economy, mismatches work themselves out through changes in prices that elicit the appropriate responses in demand and supply. But the education sector is unique in this regard.

It is surely at the heart of a knowledge-based economy that is not set up to respond swiftly to changes in business demands for new and old skills. This is especially true when these changes are not marginal in nature.

Even when a specific skill set is in demand, and a change in curriculum occurs to meet this, there is significant lag time involved in producing a pipeline of graduates who have acquired these skills.

Separately, reflect for a moment on the fact that it is only very recently that the U.S. Department of Education made detailed earnings information for college graduates publicly available. Until this change, prospective students could not compare the cost of attending a college with the benefits of doing so.

Where there is a lack of information regarding the return on this investment that colleges offer, there is a weakened connection with how we make sure workplaces get the skills they need. It is critical that this changes in the future.

In the meantime, policymakers can reevaluate priorities and ensure that our education policies provide a proper supporting role to the adjustments that need to be made. I see this falling within the scope of fair competition, where the word “fair” takes on an added meaning and urgency. When a large swath of young adults is increasingly ill equipped to have a decent shot at economic success, we risk failure on a massive scale.

Closing

This brings me to the end of my talk. I have covered a fair bit of ground with you, so let me wrap up by summarizing my main points. First, I think that long-term economic growth is fundamental to our future economic well-being. Economic growth has slowed since the mid-1990s, and we may remain on a slow growth trajectory for some time to come.

I talked to you about what we know of the determinants of long-run economic growth, and I stressed that monetary policy that successfully delivers on price stability with maximum employment can affect these factors only marginally. Thus, there are limits to what good monetary policy can do for us.

Second, I think there is a lot that can be done in the policy space to improve the prospects of long-term economic growth. Reform of the corporate tax system — to bring it more in line with the tax systems of our main competitors — is one area where I think progress is possible.

Also, I believe our education sector plays a critical role in our nation’s economic growth. It is a sector I know quite well, and I am concerned that, without a clear understanding of the return on investment of a college degree, we are not well adapted to deal with a rapidly globalizing world and fast-paced technological change.

Finally, I mentioned some initiatives that businesses and government have taken to remedy the growing mismatch between the offerings of the education sector and the demands of

business. I think these are good beginnings, but, with help of policy and lawmakers, more can be done.

Thank you.

¹ Nonfarm payroll employment accelerated from a 1.65 percent pace in 2013 to 1.88 percent in 2014 and 2.05 percent in 2015. In contrast, nonresidential fixed investment grew 3.03 percent in 2013, accelerated to 6.15 percent in 2014 but slowed again in 2015 to 2.86 percent.

² Averaging more than 24 episodes of major financial crises (not including the most recent one), the number of years for per capita output to recover its precrisis level is 7.2 years (Reinhart, Carmen M., and K. Rogoff, *This Time is Different: Eight Centuries of Financial Folly*, Princeton University Press, 2009, Figure 14.7). U.S. GDP per capita barely surpassed its precrisis level in 2014 — seven years since the onset of the crisis in 2007. Scaled by growth in nominal GDP per capita, the value of CoreLogic HPI in 2015 has now recovered to its 2002 level, arguably the last year before the housing boom was underway. Thus, the sector at the center of the financial crisis has also just reached normalcy.

³ According to the Congressional Budget Office (CBO), under current law the federal debt for 2040 is projected to be 107 percent of GDP. If productivity growth is 0.5 percentage point lower than the baseline projection of 1.3 percent per year, the projected federal debt would rise to 125 percent of GDP (CBO, *Long-Term Budget Outlook*, June 2015, Figure 7–3, p. 98).

⁴ The U.S.'s top corporate income tax rate of 39 percent is the highest among Organisation of Economic Co-operation and Development (OECD) countries. Excluding the U.S., the average top corporate income tax rate among OECD countries is 25 percent. Among European OECD countries, the average top corporate income tax rate is 24 percent (OECD Tax Database, Table II.1, May 2015).

⁵ “Why Have College Completion Rates Declined? An Analysis of Changing Student Preparation and Collegiate Resources,” by John Bound, Michael F. Lovenheim, and Sarah Turner, *American Economic Journal: Applied Economics*, 2(3), 2010, pp. 129–157.

⁶ “An Effectiveness Assessment and Cost-Benefit Analysis of Registered Apprenticeship in 10 States,” Final Report, Mathematica Policy Research, July 25, 2012.