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Where is the Investment Boom?

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CONFERENCE DRAFT

Where is the Investment Boom?

Why is the pace of economic recovery so slow? Some elements of the answer are subject to frequent comment.

The residential structures line in the national income accounts is showing little or no growth. That is a consequence of overbuilding during the boom. The United States has too many housing units; it will take several years before growth in the number of households absorbs the existing number of units. The decline in house prices damaged household balance sheets, as did the decline in equity prices. Overall, household finances are stressed; we should not expect consumption outlays to lead to a stronger pace of recovery. The consumption share of GDP—71 percent in 2011:3—is above historical norms of about 65 percent.¹ Although some believe that fiscal policy should ensure further increases in government consumption expenditures and gross investment, that seems unlikely and unwise given the large current and projected federal budget deficit.

What is missing is much stronger nonresidential fixed investment. Federal Reserve policy has pushed interest rates to historic lows, and yet we still do not see an investment boom. Why?

Before digging into this question, consider a few facts comparing the current recovery to the one after the 1981-82 recession, which was the most severe prior recession after World War II. Real nonresidential fixed investment in 2011:3—15 quarters after the pre-recession peak quarter of 2007:4—was only 92 percent of its level at the peak quarter. (Table 1.1.6). In contrast, 15 quarters after the cycle peak of 1981:3, real nonresidential fixed investment was 119 percent of its level in the peak quarter. In 2011:3, real GDP is just barely back to its cycle peak level; over the 15 quarters following the cycle peak in 1981:3, real GDP grew at an annual average rate

¹ References to the national income accounts refer to the most recently released data, files created 11/21/2011, available from the Bureau of Economic Analysis. Table references in the text refer to these tables.

of 3.4 percent, and was 13 percent above its level at the cycle peak. (Table 1.1.2) Of the 3.4 percentage points of growth, non-residential fixed investment accounted for 0.6 percentage points, which was double the contribution of residential investment.

Clearly, the current recovery would have been considerably stronger if nonresidential fixed investment had been stronger. Higher nonres investment would have yielded stronger consumption and job growth as well. So, back to the question: why hasn't nonresidential investment been higher?

Broadly speaking, there are two competing explanations of the current economic problem. On the Keynesian view, the problem is simple: The economy is suffering from a lack of aggregate demand. With weak aggregate demand, investment is weak because businesses have no incentive to add to the capital stock when they already have idle capital. The Obama economic program reflects this line of thought.

The competing explanation is that regulations and fears of higher future taxes are retarding business hiring and investment. This argument is almost daily fare on the editorial page of the *Wall Street Journal*. Keynesians scoff at this approach; they say that the business community and the *Wall Street Journal* always complain about regulations and taxes.

I am much closer to the WSJ view than the Keynesian view. Although I agree with the Keynesians that systematic evidence supporting the WSJ view is lacking, I nevertheless find the anecdotal evidence convincing. Anecdotal evidence is better than no evidence. Deficient aggregate demand is not an explanation—it is a restatement of the problem. *Why* is demand deficient?

Some aspects of the answer to that question are agreed by all parties. I have already commented on consumption, housing and government. What needs further analysis is business fixed investment.

Business Fixed Investment

Alvin Hansen, in his 1938 book *Full Recovery or Stagnation*, argued that investment spending might not be adequate to bring the economy to full employment, even if interest rates were pushed to zero. Sylvia Nasar, in her most recent book, *Grand Pursuit: the Story of Economic Genius*, puts the point this way:

[President Roosevelt's] position reflected only one side of a hot debate between Keynesians and anti-Keynesians. The more upbeat the public and businessmen became about postwar prospects, the more American disciples of Keynes worried that the economy would sink into another slump. Public spending would plunge with demobilization. Alvin Hansen, an advisor to the Federal Reserve who was sometimes called "the American Keynes," foresaw "a postwar collapse: demobilization of armies, shutdowns in defense industries, unemployment, deflation, bankruptcy, hard times." Paul Samuelson, a consultant for the main postwar planning agency, warned the administration not to become complacent about unemployment. "Before the war we had not solved it, and nothing that has happened since assures that it will not rise again." They had little faith that business and consumers would pick up the slack. As Samuelson put it, "If a man goes without an automobile for 6 years, he does not then have a demand for six automobiles." Having concluded from the 1930s that business was too timid to invest and that monetary policy was a poor weapon with which to fight recessions, the Keynesians were convinced that the only solution was to slow the cuts in public spending by slowing demobilization and by beefing up spending on infrastructure. (pp. 385-86)

The argument is eerily similar to some of the structural arguments we are hearing today. Even though corporations hold hundreds of billions of cash, and interest rates are practically zero, business investment is far from booming. Averaged over the first three quarters of this year, GDP growth was only 1.2 percent at an annual rate; nonresidential fixed investment accounted

for 0.9 percentage points of that growth. Although investment may be picking up, many believe that investment will not be adequate to bring the economy to full employment.

A convincing counterargument to the secular stagnation thesis of the 1930s was presented in a 1962 textbook by Martin J. Bailey, with whom I studied at the University of Chicago. Bailey argued that investment spending would not reach a limit at a zero rate of interest because there are some investments that have an annual return that continues in perpetuity. If an investment has an infinite life, then the present value of the project can be made as large as you please by making the interest rate as low as you please. That is, as the discount factor on future returns goes to zero, the present value becomes indefinitely large. The lower the rate of interest the greater the number of investments there will be with present value above their capital cost and the total size of these investments will be easily large enough to bring the economy to full employment.

Bailey used the example, and had estimates of the cost, of creating new farmland by filling shallow coastal areas of the Gulf of Mexico. The newly created land would have a return in agricultural output that would continue indefinitely. Thus, at a low enough interest rate, the present value of the land would exceed the cost of creating it.

Another example discussed by Bailey is leveling the Midwest. The hugely productive farm areas of the Midwest are not perfectly flat. Water collects in the lower spots, damaging agricultural productivity. At finite cost, a farmer can strip off topsoil, level the land, and put the topsoil back. The increase in output continues indefinitely. At a low enough interest rate, the value of the investment exceeds its cost. Bailey had other examples of investments that would create a long string of returns and that, at a low enough interest rate, would be worth doing.

Investment Opportunities Today

There are ample investment opportunities today of the sort Bailey discussed. To take the Bailey argument seriously, we need to explore some examples.

Creating Urban Land. Cities with very expensive land—Manhattan is a clear example—could expand by filling in areas along the waterfront. Manhattan has piers that jut into the Hudson River. Filling in the Hudson River a couple of hundred feet along the shore north of the piers up to the George Washington Bridge would create valuable land without restricting navigation. On the East River side of Manhattan from roughly 100th Street to 115th Street, the water is only a few feet deep. Filling in some of these relatively shallow waters would also solve another problem—that of where to deposit silt dredged from the harbor to maintain adequate depth for shipping. The land created would be valuable and have an indefinite life.

Chicago, San Francisco, Boston and several other cities have similar opportunities to create valuable land. At some interest rate low enough, such investment would be profitable. To my knowledge, no cities and no entrepreneurs are pursuing such opportunities. I suspect that the reason is not that such projects are too expensive but rather that opposition on environmental or atheistic grounds blocks such projects. Although these cities all added land historically, it appears that the process has stopped.

Infrastructure. The Obama administration's emphasis on infrastructure—mostly highway construction and repair—was clear in the original stimulus legislation enacted in February 2009 and in continuing proposals for more such spending. The problem is that federal and state governments are fiscally exhausted. What needs to be done, as economists have long recommended, is to finance infrastructure facilities through tolls. With modern electronic transponders, highway tolls can be collected with minimal effect on traffic flow.

Highway construction would seem an almost perfect fit with Bailey's argument. A highway right-of-way has an infinite life. The concrete roadway and bridges have a very long life. Where traffic would be high enough to yield toll revenue to support a highway, the case for such projects at today's low interest rates is strong. It is essential, however, to finance these roads with tolls to prevent construction of bridges and highways to nowhere. Electronic tolls also promise enormous efficiency gains through congestion pricing.

Reforming highway finance will not quickly create a boom in highway construction. But if the country had taken this approach earlier—even as late as during the financial crisis—projects could be under way now. Enough practical experience is available in the United States and abroad that political leaders should be driving reform. We need to convince voters that they are better off paying a toll and having the road than not paying a toll and not having the road. Not far from where I live, the just-opened Intercounty Connector (ICC) across Montgomery County, MD is providing such a demonstration. Anyone who prefers to avoid tolls still has the option of taking the Capitol Beltway instead.

If you visit the web site of the U.S. Department of Transportation, you will see that there is a little going on with respect to tolling. Not a big push yet, but a start. Adding tolls to existing Interstate highways could finance improvements and tolls could finance new Interstates. Unfortunately, federal leadership is just not strong enough to create real progress.

Energy Projects. Many energy projects fit Bailey's specification. Pipelines provide a good example. A pipeline right-of-way has an indefinite life and the pipeline itself has a very long life.

There is a lively debate over TransCanada's proposed Keystone XL pipeline.² According to the *Wall Street Journal*, construction would provide 20,000 jobs. That estimate may or may not be accurate, but the expectation of a \$7 billion investment suggests a non-trivial impact. The Obama administration has blocked construction as of now; a final decision will be made after next year's presidential election.

Another option is pumped storage electric generation projects. I am certainly not an energy expert, nor an expert in regulation, but have spent some hours examining this issue. A pumped storage facility has two reservoirs separated by considerable vertical distance. At night, when electricity demand is relatively low, water is pumped up a pipe from the lower to the upper reservoir. When electricity demand is high, water flows down and drives a turbine. The same turbine works as a pump at night. Pumped storage is the only practical way to store a large amount of electricity. Pumped storage ought to be of great interest to advocates of wind and solar electricity generation, as that is a way to store energy when the wind blows the sun shines.

As with the other technologies discussed, a pumped storage project has a long life and ought to be attractive at low interest rates. The website of the Federal Energy Regulatory Commission (FERC) provides a great deal of information on pumped storage projects. Licensed pumped storage projects have a total capacity of about 16,000 MW; most were authorized more than 30 years ago. FERC has issued preliminary permits for an additional 40,000 MW, a huge increase. However, as far as I can tell, no new projects have been authorized for construction. Here again, the investment issue is not an inherent drought of good opportunities but an approval process that is agonizingly slow.

² Editorial, "Keystone Cop-out," *Wall Street Journal*, November 16, 2011, p.12. Daniel Henninger, "Obama Abandons (Private) Labor," *Wall Street Journal*, November 17, 2011.

Capital spending projects of the sort discussed above generally have long lead times. My sense from the daily press is that not much is going on. The Federal Reserve's most recent *Beige Book* (November 30, 2011) does not indicate that businesses are planning or beginning to ramp up capital spending. Perhaps we will soon see evidence of capital spending spurred on by low interest rates, but if so not much shows on the radar screen at this time.

Investment and the Real Rate of Interest

The yield on the inflation-protected Treasury bond is about zero at the 10-year maturity and slightly below 1 percent on the 30-year maturity. Yet, I have not observed a rush to fill in the Gulf of Mexico or level the Midwest, or create new urban land or build pumped storage projects. There must be several dozen other technologies of the sort I have been discussing. There seems not to be a boom, or evident agitation to gain approval, for such projects. Why?

For Bailey's argument to work, environmental permits have to allow the investment in the first place. And, the relevant return is on an after-tax basis. Will future tax law permit such an investment to earn enough to cover its capital cost?

The issue in the United States today is not that business is shortsighted and unwilling to take risk. Consider the enormous investment, and risk, Boeing assumed when it launched the 787 Dreamliner project. A quick Internet search suggests that Boeing went public with the project in early 2003. Although the plane is currently about 3 years late to market, when Boeing decided to proceed it must have had a planning horizon of at least five years to bring the first model into service. Boeing expected the 787 to yield a stream of returns over many years; discounting those returns back to the decision date, Boeing must have thought the project had a present value above its enormous cost.

This sort of long-horizon investment is frequent in U.S. history. We do not see more such investment now because of uncertainty over the tax and regulatory environment. Martin Bailey, writing before establishment of the Environmental Protection Agency, could not have foreseen that creating new agricultural land in the Gulf of Mexico would have been impossible, and that plans to level sections of the Midwest might have been held up for years and years. And given the unsustainable federal budget situation, returns from risky projects might never be realized because they would be taxed away.

We learn a lot about economic principles by examining extreme cases. No amount of monetary or fiscal stimulus can raise output in many of the countries in sub-Saharan Africa, for example. Economic growth is impossible with kleptocratic governments characterized by rampant corruption and a population living without security of person and property. Today, it is perfectly rational for U.S. investors to sit on mountains of cash rather than to commit to projects that might well have negative returns when the tax collector knocks on the door.

Stimulating Business Investment

So, there we are. What medicine do we prescribe? Consumption cannot power the recovery because household balance sheets are still impaired; jobs and income growth are slow. Housing cannot lead the way because the economy already has too many houses. Net exports and inventory investment are too small to be material. Government is fiscally exhausted; continuing large federal budget deficits will only make the long-run situation worse. The key to recovery is business fixed investment. Incentives matter for investment and that is where our focus must be.

Given this analysis, the appropriate medicine is clear. The federal government needs to settle uncertainties over the tax law and the regulatory environment. There is no possible monetary policy that can fix these problems, or offset them to a substantial degree.

President Obama wants higher taxes on upper-income taxpayers, but seems unwilling to engage in conversation about tax reform. I suspect that many in the upper brackets would be delighted to see reform—even with some increase in the tax burden—that would provide reasonable certainty about tax rates and tax structure in the future. Our tax system is terribly expensive to administer. My personal guess is that record keeping and fees for tax preparation absorb about 5 percent of my income. A far simpler tax system would eliminate most of these costs—pure dead-weight loss in economist’s lingo.

The U.S. regulatory environment is becoming ever more complex and inefficient. I am not an environmental expert, but it does seem to me that the EPA is going much too far. As for financial regulation, Dodd-Frank is adding an enormous burden, as yet to unknown degree because most of the regulations have not been written. That burden comes on top of the overkill from Sarbanes-Oxley.

In short, the federal government is strangling the economy. These are self-inflicted wounds. The stagnation has been created by government and can be fixed by government. Monetary policy is not standing in the way.