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Productivity, Growth Potential and Monetary Policy in the EMU

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Executive summary

The reversal in the trend of productivity growth between the US and the UK on one side, and the main countries of continental Europe on the other, appears with great evidence from the data. The current debate focuses on differences in labour market performance, which should account for the growth and productivity divergence. While some measures aimed at increasing the participation and employment rates in the EU are certainly desirable, excessive precariousness of the labour market would have deep social implications, and should be subject to democratic approval.

Furthermore, one striking aspect of the debate on productivity growth is the moderate emphasis given to investment and capital accumulation. By looking back to the late 1960s, one can observe a striking positive correlation between productivity growth and both private and public investment. If we consider the inherently long term features of investment, the data also show a positive correlation between investment and trend growth (the OECD measure for potential growth).

The correlation between investment, productivity, and potential growth, should be better understood and investigated than what is done in the current debate. By doing that, we should also reassess policy in terms of its capacity to provide a favourable environment for capital accumulation. In this respect, the self complacency of policy makers in the EU may appear excessive. The Stability and Growth Pact has seriously affected the capacity of large European countries to invest (the comparison with the golden rule of the UK is in this respect telling), and when assessed with respect to the growth performance of the Euro zone, the monetary policy of the ECB seems less accommodating than usually believed. Excessive interest rates may contribute to explain investment stagnation in the past decade, especially when seen in comparison with the US

Introduction

In the past decade, the growth rate of productivity and of GDP in the Euro zone have lagged behind the ones of the US. This is a recent phenomenon, though, because most of the post-war period has been characterized by a catching up of productivity and income by the European countries. Figure 1 shows a general measure of productivity -Real GDP over employment-, for the US and for the largest countries of the European Union¹. We can observe that the productivity of the US was substantially larger than all European countries in 1965. Figure 2 shows the yearly percentage increases in the two sub periods 1965-1990 and 1992-2005, emphasizing the change that happened in the last decade.

We can notice that while the US is the only country that experienced an increase in the growth rate of productivity (almost doubled), all the European countries experienced a reduction, particularly sharp for the countries like Spain and Italy, that because of their initial backwardness, had progressed most in the preceding decades. It is also worth mentioning that while decreasing, the growth rate of productivity in the UK remained slightly larger than in the US. In fact, relative to the early 1990s, the UK has the most productive economy of our sample.

The Causes of the Anglo-Saxon Predominance

The current debate on growth and productivity only focuses on the latest period, and it revolves around the question of how the European countries can get out of their ‘soft growth trap’. The ECB (e.g., the October 2006 Bulletin) summarizes the debate by identifying a number of factors that can explain why the US and the UK grow faster than the larger continental economies, and experience higher productivity growth. The elements that are evoked are well known in the literature:²

- a) A substantially larger (almost 10 percentage points) employment rate in the US
- b) Longer hours worked in the US. This has triggered a debate, not settled yet, on whether the difference in labour supply depends on a different

¹ I normalized at 1992=100 for essentially two reasons. First, to mark the structural break that appears in the early 1990s (in particular with the Maastricht Treaty). Second, to partially neutralize the discontinuity in the data introduced by the German reunification. A more careful assessment of the German data also justify my choice below to eliminate the year 1991 from my subsamples.

² See e.g. *How to Elevate the potential growth rate of Europe*, speech by Jean-Claude Trichet, President of the ECB, Berlin 16 October 2006.

preference for leisure, or on different revenue incentives (i.e., excessive tax burden in the European countries).

- c) The US experienced a larger (around twice as much) investment in ICT than Europe. ICT is widely recognized as a major determinant of recent productivity growth.

The third element, in particular, may help to explain why the increase of employment has not triggered a slowdown of productivity growth in the US.

This diagnosis is robustly supported by data, and largely shareable. What is less convincing is the recommended therapy, which focuses exclusively on the effort to make product and (mainly) labour markets more flexible.

Some of the currently debated measures are certainly necessary and useful, and their implementation only depends on the overall impact on public finances. It is for example the case of a reduction in the tax wedge. Other measures, nevertheless, - like the incentives for part time or the reduction of labour protection – need to be carefully weighed. For these measures, the increased flexibility of the labour market may come at the price of an increased precariousness of labour, a result that would change the organization of our society, and as such needs to be the explicit outcome of a democratic and political process rather than a technocratic choice. Furthermore, the future costs for social security would need to be carefully evaluated, as precariousness would most probably be associated with lower capacity to provide social contributions.

To sum up, the effort to make the labour markets more flexible has to be encouraged, but carefully drafted in order to avoid a deep modification of our societies, that would be unwarranted unless explicitly subject to a democratic choice.

Investment and Productivity

Two things in the debate about productivity appear puzzling; the first is the already mentioned exclusive focus on the recent comparison between the US and European countries. The second is the secondary importance attributed to the role of investment, which is often mentioned but never really studied, especially in what concern the positive implications of economic policy. The minor role attributed to investment is particularly at odd with the emphasis that economic theory (even at the textbook level) puts on the link between capital accumulation, productivity and potential growth.

These two odd features of the debate are deeply intertwined, because by extending the comparison to the decades preceding 1990, the explanatory power of institutional labour market differences fades away. The US was already relatively more flexible, but its productivity performance at the time was lower than the European's. It is then necessary to

go back to the role of investment, to make sense of the differences in growth and productivity. Figures 3 and 4 show the yearly average increase in capital stock, for the private and public sector respectively, divided once again in the two sub samples 1965-1990 and 1992-2005³.

The first one shows that European countries experienced much larger private investment than the US in the previous sub period. In the second period, nevertheless, in the framework of a generalized drop of investment rates, the US and the UK limited the reduction; in the past 15 years, their average private net investment rate was larger than the one of Germany and Italy. Figure 4 shows the average rate of Government Gross Fixed Capital Formation. The similarity with figure 2 is in fact quite striking, as the only countries that experienced an increase in public investment, since 2002 (the US and the UK), are also the ones that increased most their productivity. It is worth mentioning that steep decrease in public investment for European countries coincides with the run up to the Euro, which in many countries implied a tightening of monetary and fiscal policy. As was to be expected, this tightening hit harder expenditure items like investment, which were less “visible”, without significantly affecting politically sensitive items like current spending. With this in mind, the dramatic increase of public investment in the United Kingdom becomes an indirect proof of the appropriateness of the golden rule of public finances, which regulates public expenditure net of investment. In the UK the soundness of public finances was assured without harming investment, and hence guaranteeing the continuing increase of productivity and potential output. By contrast, the countries subject to the strict constraints of the Maastricht Treaty, and then of the Stability and Growth Pact, seem to have relied on drastic reductions in the rate of increase of public investment, that may help to explain the stagnation in productivity growth.

The relationship between investment and productivity can be summarized as in figure 5, where the increase in productivity is mapped against investment (each country has two points per series, corresponding to the two sub-periods). It can be seen that the relationship is positive for both private and public investment.

Investment and Potential Output.

Investment is a both a short and long run phenomenon. The short run effect on aggregate demand is well known. But an equally important role of investment is that it builds the future capital stock of the economy. It is through this channel, if any, that it has

³ Because of data availability, we were able to obtain net investment for the private sector, but gross investment for the public sector (for which the OECD does not provide data on the capital stock).

effects on the long run potential of the economy. But these effects are by definition delayed, as investment takes time to become productive capital. To emphasize the long run features of investment I first took five years averages (1960-65, 1965-70, and so on). Then I plotted them against potential output growth (as calculated by the OECD), in the following period, in order to capture the delayed effect of capacity construction building. I added Japan to the six other countries, because of its long stagnation. Figures 7 and 8 plot the correlation, for the total of the countries, and for each of them separately. We can observe a robust positive correlation between investment and delayed potential output growth, that furthermore is replicated for almost all countries taken individually (the only exception is Spain, for which nevertheless we only have 5 points).

These correlations are of course only suggestive, but they underline the need to better investigate the role of investment in the determination of productivity, and not to focus as is too often the case, only on labour market rigidities.

Policy Implications

What precedes confirms the initial educated guess, that there is more than labour market rigidities to explain the differences in potential growth that we observed in the past 15 years. Investment, both public and private, seems to play a very important role. But if we shift the emphasis to investment, then we need to look at the determinants of it, among which policy plays a crucial role. I already pointed out above the striking difference in terms of actual and potential growth between the UK, which followed a fiscal rule that preserves public investment, and the large continental countries that were bound by the Stability Pact.

But also monetary policy is an important determinant of investment. The emphasis on price stabilization in this respect is usually justified by two main arguments. The first is that a stable macroeconomic environment keeps the risk down and hence is favourable to investment. The second argument is that at any rate, the main determinant of investment behaviour is the flexibility of labour and goods markets; as a consequence, the key to increased competitiveness is the implementation of structural reforms.

Nevertheless, comparing the recent history of the US and the EU, we can tell a rather different story, in which monetary policy, investment and its long term effects on productivity play a central role. In the first half of the 1990s real interest rates were much

higher in Europe than in the US⁴, and that was a major determinant in the difference of private investment rates⁵ in the two zones, that continued all along the 1990s. The high investment rates (among other things in R&D) had the effect of increasing the stock of both physical and human capital in the US. As a consequence of the different stock of capital, the period of relatively high growth that Europe experienced between 1997 and 2000 was particularly rich in employment, but productivity did not increase substantially. It was a “prductivityless” recovery! On the other hand, in the US, the productivity component of growth was relatively more important than job creation. In fact, it was only the exceptional growth rate that allowed the US to create jobs in a period of exploding labour productivity.

The early 2000s, give us further indications of the link between growth, investment and productivity. Investment dropped significantly in the US, after the boom of the late 1990s; the recovery after the short recession of 2000-2001 was mainly due to resilient consumer spending. Nevertheless, productivity continued to increase, and as a consequence, the US is experiencing a period of “jobless growth”. This allows concluding that the long term effect of investment on productivity is crucial, as the current productivity increase clearly build on past investment.

This perspective on the recent macroeconomic developments in the US and in Europe highlights - in disagreement with the ECB - the role that the budgetary and monetary tightening experienced in the EU since the early 1990s have played to depress investment, and hence productivity growth.

Increasing productivity and potential growth necessarily requires strong investment, both public and private, in order to build the necessary human and physical capital stock. Crucial to this increase in investment is a friendly environment, in which policy necessarily plays a role, as the experience of the US clearly shows.

⁴ From 1990 to 1996 the short term nominal rate in the US was below 5%, while it was at around 8% in the European countries, while inflation was more or less the same.

⁵ As I mentioned already, the insufficient private investment was accompanied by a decrease of public investment due to the budgetary restrictions implied by the run up to the Euro.

Figure 1 - Productivity Index

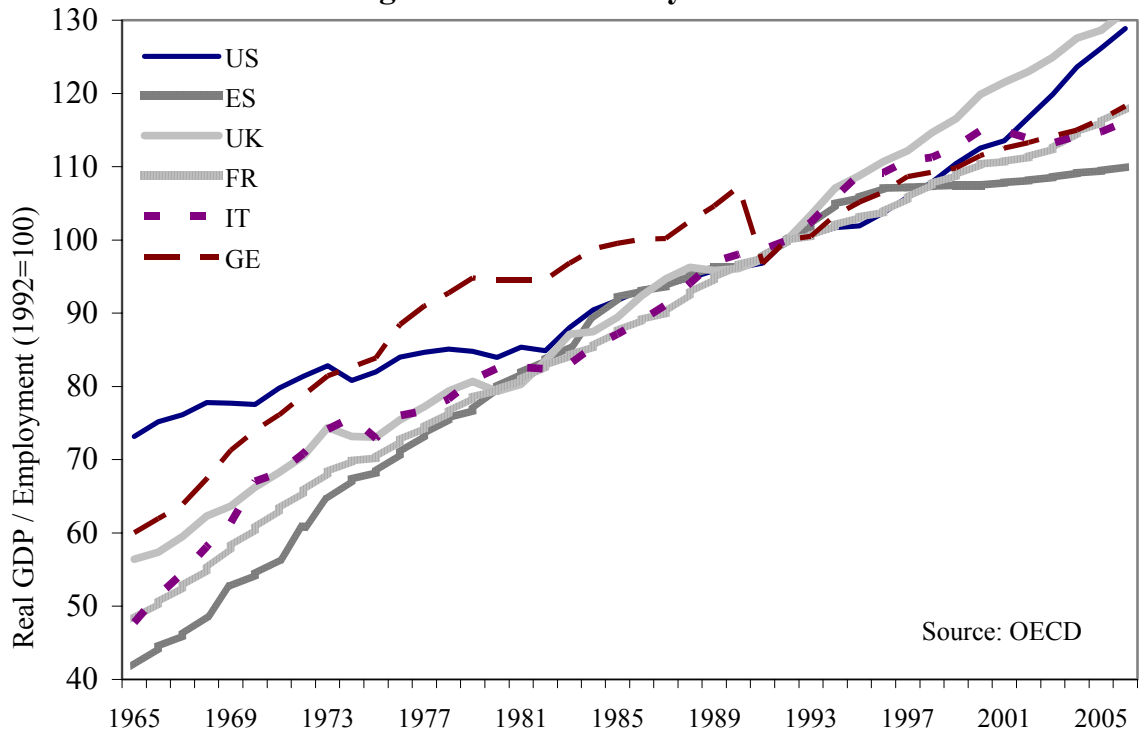
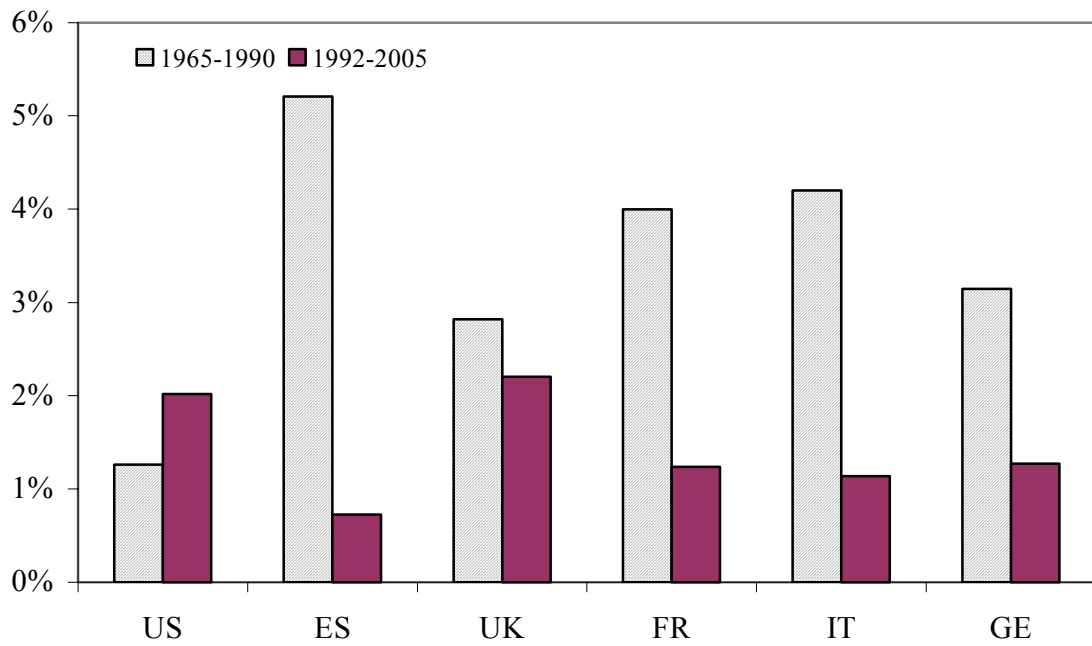
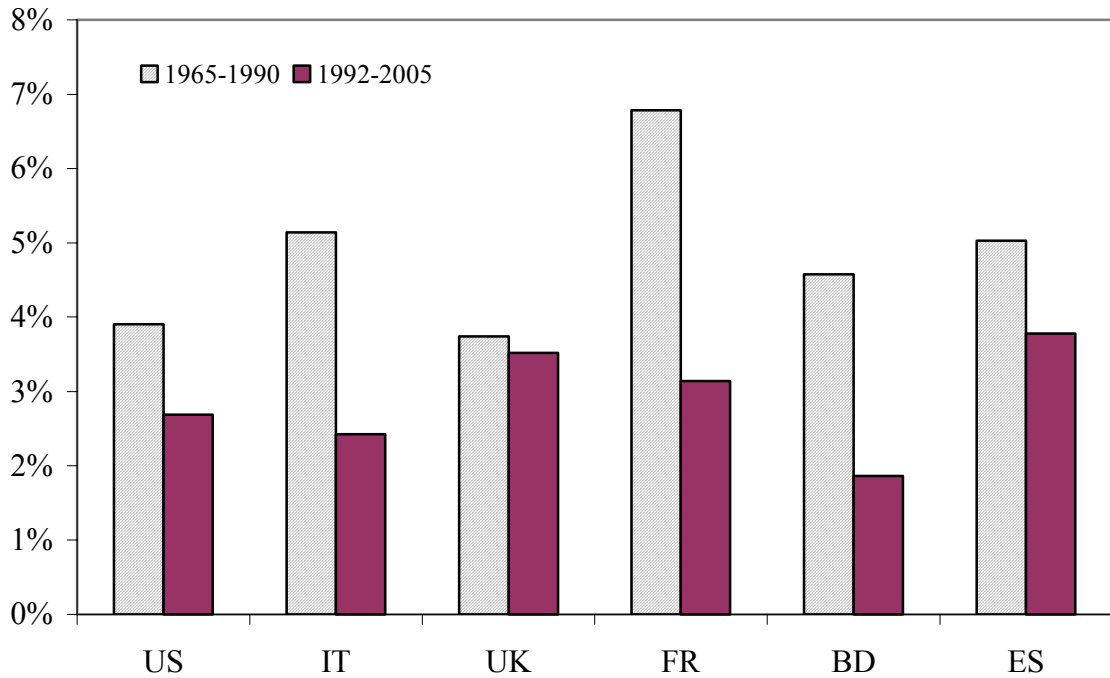


Figure 2 - Yearly Average Increase in Productivity



Source:

Figure 3 - Yearly Average Increase in Private Capital Stock



Source: OECD

Figure 4 - Yearly Average Government Gross Fixed Capital Formation



Source: OECD

Figure 5 - Investment and Productivity

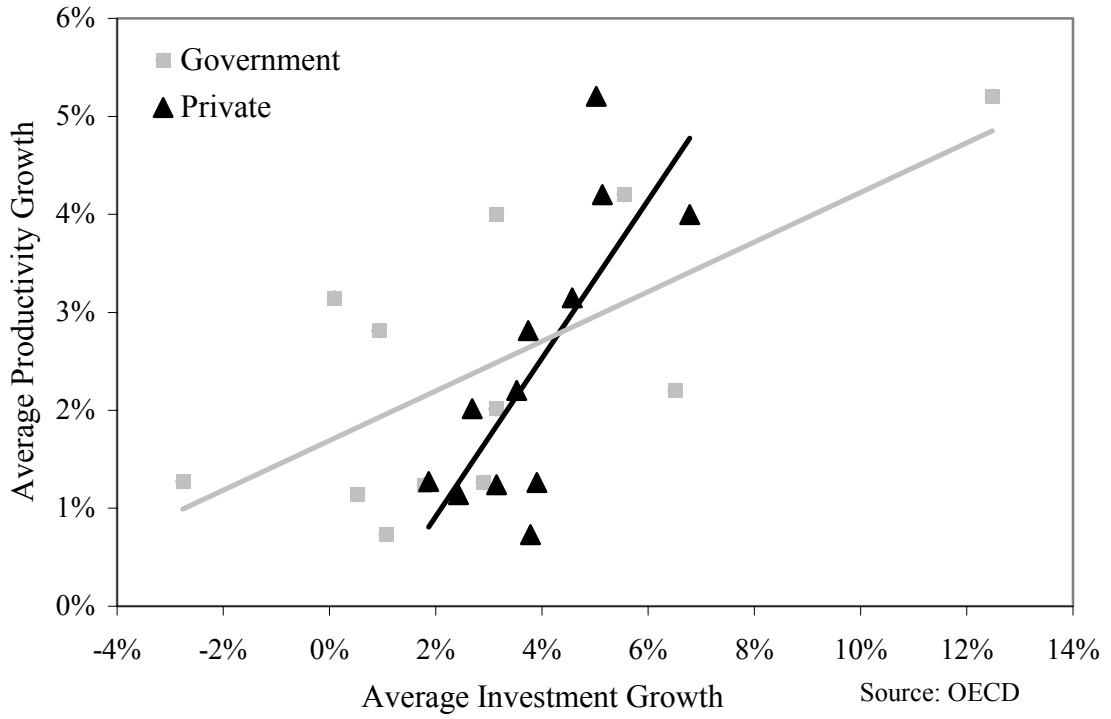


Figure 6 - Investment, Productivity and Potential Output

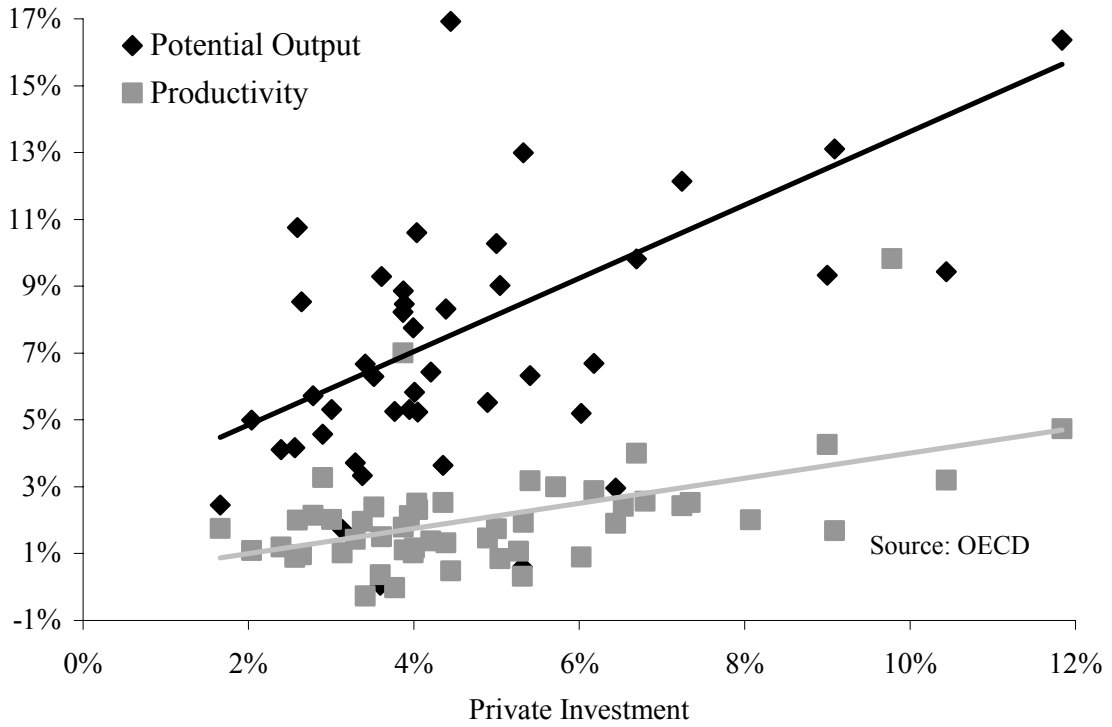


Figure 7 - Investment and Potential Output Growth

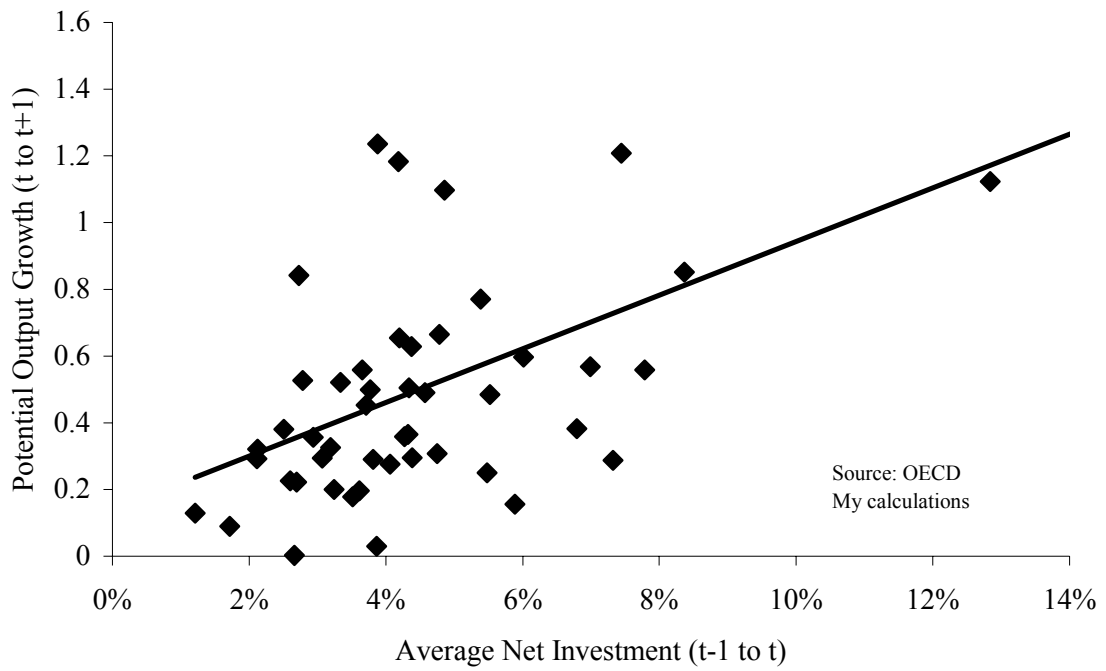


Figure 8 - Investment and Potential Output Growth

