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Is Secular Stagnation the Future of the Eurozone?

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Summary Points

- There are 2 types of secular stagnation. A short term variety is where negative real interest rates are needed to raise demand and a long-term variety that has growth suppressed by a failure to create or use technological innovations.

- The policy antidote to short-term secular stagnation when nominal interest rates cannot be further reduced is to raise inflationary expectations. There are well-known ways to do this but the design of the Eurozone precludes their use. The Euro Area is almost uniquely ill-equipped to use policy stimulus to escape from a liquidity trap so finds it difficult to escape from the doldrums.

- There is, of course, uncertainty about the future rate of technological progress. Nevertheless, there good reasons to believe that it will be quite rapid over the next twenty years especially through the computerization of employment which will provide investment opportunities as well as productivity growth if its diffusion is not impeded. The real challenge for Europe will be to adjust to the job losses that this will entail.

- European countries still have considerable scope to grow through reducing productivity gaps and catching up the United States. For many European economies, supply-side reforms could significantly improve growth performance if they were politically acceptable.

- Secular stagnation is not inevitable. If either variety prevails in the Eurozone, it will be a result of policy failure.

Introduction

Recovery from the financial crisis remains very sluggish in the Euro Area. Fears are growing that growth prospects in Europe over the medium term are significantly worse than anyone would have thought before the crisis. The concept of 'secular stagnation', which dates back to the 1930s, has been revived and was recently the topic of a recent e-book (Teulings and Baldwin, 2014). Indeed, relative to pre-crisis levels, real GDP in the Eurozone countries is similar to that of the hapless economies that remained in the gold standard to the bitter end (the 'gold bloc') rather than that of those who left gold early and experienced a strong recovery by the mid-1930s (the 'sterling bloc'), as is shown in Table 1.

Table 1: Real GDP in Two Crisis Periods

	Sterling Bloc	***United States***	***Gold Bloc***		***Euro Area***
1929	100.0	100.0	100.0	**2007**	100.0
1930	100.4	91.4	97.3	**2008**	100.2
1931	95.8	85.6	93.6	**2009**	95.2
1932	96.1	74.4	90.3	**2010**	97.6
1933	98.8	73.4	93.2	**2011**	99.2
1934	105.0	81.3	92.5	**2012**	98.6
1935	109.1	88.6	93.4	**2013**	98.2
1936	113.9	100.0	94.6	**2014**	99.0
1937	117.7	105.3	101.0	**2015**	100.1
1938	119.5	101.6	100.8		

Note: 'sterling bloc' comprises Denmark, Norway, Sweden and UK; 'gold bloc' comprises Belgium, France, Italy, Netherlands, and Switzerland.

Sources: Maddison (2010) updated using the Maddison Project (2013); OECD (2014)

This paper seeks to clarify the different meanings of 'secular stagnation', to assess their relevance to European countries, and, in the light of this analysis, to extract some policy implications. The upshot is a set of conclusions which make uncomfortable reading and which make the point that the design of the Eurozone makes dealing with the problem of returning to strong growth more difficult. However, there is no reason to believe that technological progress will slow down drastically and there is a good opportunity to return to decent growth in the medium term if supply-side policy is supportive.

Secular Stagnation

The first time around, 'secular stagnation' was a hypothesis famously articulated by the early Keynesian economist Alvin Hansen in his presidential address to the American Economic Association meeting in Detroit in December 1938 (Hansen, 1939). Hansen argued that the American economy faced a crisis of under investment and deficient aggregate demand since investment opportunities had significantly diminished in the face of the closing of the frontier, declining population growth and a slowdown in technological progress. It was as if the United States was faced with a lower natural rate of growth to which the rate of growth of the capital stock would adjust through a

permanently lower rate of investment. In Europe in the 1930s and 1940s, similar worries were articulated by Keynes himself (Skidelsky, 1998) and his followers.

The second time around, the idea of 'secular stagnation' put forward by Summers (2014) is one of a tendency to deficient aggregate demand such that negative real interest rates are necessary to generate enough investment to stabilize the economy at the NAIRU. This might be a consequence of deleveraging after the financial crisis or a savings glut. If these tendencies are persistent, the economy might face a situation where being in a liquidity trap is the new normal (Krugman, 2014). Clearly, a slowdown in future growth potential will make the need for negative real interest rates more likely. With a capital to output ratio of 3, a decline of 1 per cent per year in steady-state real GDP growth will imply a decline of 3 percentage points in the investment to GDP ratio to bring capital stock growth back into equilibrium.

What kind of policy response might be required? If secular stagnation is seen as a serious slowdown in the long-term trend growth rate, then the appropriate strategy is to focus on supply-side policies that might raise the rate of growth of labour productivity and of labour inputs. If secular stagnation is seen as a 'depressed economy' at the zero lower bound (ZLB) for nominal interest rates, then the options might also include unconventional monetary stimulus and/or fiscal stimulus. Either way, a successful intervention to escape a liquidity trap can be expected to work by raising inflationary expectations and thus reducing ex-ante real interest rates.

Why Was Alvin Hansen Wrong?

Alvin Hansen was spectacularly wrong. The United States achieved a strong recovery from the Great Depression post-1933 and in the following decades enjoyed its strongest ever growth performance. Neither type of secular stagnation was experienced.

Between 1933 and 1937, real GDP rose by 36 per cent compared with a fall of 27 per cent in the previous four years taking the level in 1937 back to about 5 per cent above that of 1929 (cf. Table 1).[1] The main stimulus to recovery in the United States was monetary not fiscal policy. This was driven by (largely-unsterilized) gold inflows after the United States left the gold standard. M1 grew at nearly 10 per cent per year between 1933 and 1937 and real interest rates fell dramatically. The role of the New Deal was to change inflationary expectations rather than to directly to boost aggregate demand.[2]

The key was 'regime change'. Leaving the gold standard was a clear signal that the deflationary period was over. Roosevelt's several actions on taking office, comprising leaving gold, announcing an objective of restoring the prices to pre-Depression levels, and implementing New Deal spending amounted to a credible policy that delivered a major change in inflationary expectations which drove down real interest rates and raised the expected money supply, i.e., the classic recipe for escaping the liquidity trap based on 'unconventional' monetary stimulus (Eggertsson, 2008).[3]

[1] Real GDP per person did not regain its 1929 level till 1941 and recovery was interrupted by a severe recession in 1937 when monetary stimulus was abruptly withdrawn, see Crafts and Fearon (2013).
[2] It is well-known that the fiscal stimulus provided by the New Deal was small (Fishback, 2013).
[3] Eggertsson (2008) estimated that 'regime change' accounted for about three-quarters of GDP growth between 1933 and 1937.

Over the longer run, American growth was underpinned by strong total factor productivity (TFP) growth, both in the 1930s and after World War II. Gordon (2000) described these years as the crest of the 'big wave' in long-term productivity growth while Field (2011) stressed that technological advances were broadly based and facilitated productivity growth not just in manufacturing but transport, communications, distribution, public utilities etc. while the TFP growth of the 1950s and 1960s was set in train by the national innovation system that had been established during the interwar period. In addition, demographic pessimism was confounded and (for reasons that are not entirely understood) the baby boom began in the late 1940s. Private investment as share of GDP was averaged 15.6 per cent during 1948-66 – roughly the level of the 1929 peak – as business responded to the opportunities created by this dynamic economy.

The Eurozone's Policy Response to a 'Depressed Economy'

Given that there has been zero growth in the Euro Area in the past seven years, it is not surprising that economists have started to worry that the Euro Area has entered a period of secular stagnation in that the neutral real interest rate is significantly negative (Rawdanowicz et al., 2014). The confidence interval about such estimates is, of course, quite large but there is at least serious cause for concern. The rate of business investment continues to be very weak and has not recovered since 2009 while lower levels of potential output and possibly trend growth make deleveraging both more urgent and more difficult. Levels of debt for the private sector in the Eurozone are still above pre-crisis levels and a prolonged period of slow deleveraging is a serious impediment to recovery (Buttiglione et al., 2014). The assessment of the medium-term future resulting from sophisticated extrapolation of recent growth performance by European Commission economists (see Table 2) casts a long shadow over the present and is such a gloomy future prospect that it is also likely to hold back an investment-led recovery.

Table 2: Growth of Potential Output and Its Sources, 2014-2023 (% per year)

	Real GDP	***Hours Worked***	***GDP/Hour Worked***	***From TFP***
EA 12	1.1	0.3	0.8	0.5
EU15	1.1	0.3	0.8	0.5
USA	2.4	0.9	1.5	1.0

Source: derived from Havik et al. (2014)

Continuing fiscal consolidation under the auspices of the Fiscal Compact is unlikely to be expansionary; on the contrary, the implications are likely to be deflationary. The ECB has eventually embarked on quantitative easing which will offer some monetary stimulus but even so it is reasonable to suppose that post-crisis fiscal adjustment is likely to be a drag on medium-term growth in the Eurozone. Priority has been given to restoring relative low levels of public debt to GDP which, along with banking union, has a strong rationale in the context of removing the 'doomloop' of potentially devastating feedbacks between sovereign debt default and bank failures leading to a financial crisis and a massive recession. This has, however, precluded significant fiscal stimulus in the short term and, in the absence of fiscal union, it seems unlikely that a strong fiscal response to a depressed economy is a weapon at the Eurozone's disposal.

Short term secular stagnation issues, i.e., those relating to the need for negative real interest rates to escape from the doldrums of flat-lining GDP at below potential output, were addressed effectively by the regime change associated with the New Deal. In principle, a similar recipe could be followed now but the architecture of the Eurozone, including notably the design of the ECB, precludes this. A central bank more suited to a 'depressed economy' would be 'subservient' to a finance ministry rather than independent and thus more able credibly to commit to future inflation and willing to facilitate 'financial repression' thereby easing the drag of fiscal consolidation as happened in 1930s Britain (Crafts, 2014). The main point is that the type of central bank that was embraced throughout the OECD during the Great Moderation does not dominate other models in all circumstances and especially not when mired in a persistent liquidity trap with nominal interest rates stuck at the ZLB.

Perhaps the most radical proposal would be to implement unconventional monetary and fiscal stimulus through a helicopter money drop, i.e., a temporary fiscal stimulus financed permanently by an increase in the stock of base money. There are good reasons to believe both that this should never be contemplated in normal circumstances but also that this would be an effective antidote to the threat of secular stagnation of the Larry Summers variety (Buiter, 2014). Clearly, however, this is completely unacceptable to Germany and is ruled out by Article 123.1 of the European Treaty.

In sum, raising inflationary expectations and thereby lowering real interest rates is not compatible with the design of the Eurozone. In particular, a credible commitment by the ECB significantly to raise the rate of inflation is not possible. The central bank was designed for normal times rather than to deal with the policy issues raised by a depressed economy.

Medium-Term Growth Prospects for the Eurozone

As is shown in Table 2, if the trends that have prevailed since the start of this century continue, medium term European growth prospects will be quite dismal and also much worse than those in the United States. This analysis, however, is essentially backward-looking. What might a more forward-looking approach say? The best starting point for a discussion of potential long-run trend growth for the Eurozone is to ask whether the United States is heading for secular stagnation in the long run with the possible implication that future European TFP growth, which relies heavily on the diffusion of new American technology, will be undermined.

Mainstream opinion among American economists rejects the secular stagnation thesis. It is true that projections of growth rates over the next 10 to 15 years in the United States have been reduced somewhat since the Great Recession and it is generally accepted that employment growth and the rate of improvement of labour quality will slow down but standard projections are for GDP growth at around 2 per cent and real GDP per hour worked at about 1.5 per cent per year (Fernald, 2014). Even Gordon (2014), often cited as a notorious pessimist, expects labour productivity growth at 1.3 percent per year based on TFP growth around the average of the last 40 years. An obvious factor underpinning TFP growth is likely to be continuing progress in ICT (Byrne et al., 2013). Future technological progress is notoriously hard to predict – 1980s' pessimism was, of course, derailed by ICT - but there is quite possibly scope for a significant acceleration in TFP growth since a major legacy of the ICT revolution will be much higher productivity in undertaking R & D (Mokyr, 2014).

The upside actually seems to offer a considerable chance that productivity growth will strengthen since it seems quite likely that the impact of computerization will intensify in the near future. Frey

and Osborne (2013) estimate that 47 per cent of 2010 employment in the United States has at least a 70 per cent chance of being computerized by 2035 (Table 3) with these probabilities being strongly negatively correlated with wages and educational attainment of workers. If these estimates are correct, this technology alone could deliver labour productivity gains equivalent to, say, 1.5 per cent per year over the next 20 years. Future advances will come in machine learning which will be applied in mobile robotics as hitherto non-routine tasks are turned into well-defined problems, in particular using big data which will allow substitution of (much cheaper) robots for labour in a wide range of low-wage service occupations. Tasks which will not be susceptible to computerization are those involving perception and manipulation, creative intelligence, or social intelligence. This suggests that the issue that Europe confronts is actually not so much an absence of technological change but how to cope with it especially since its factor-saving bias which could entail major problems in the labour market.

Table 3: Estimates of Computerization Probabilities by 2035 (% 2010 Employment in USA).

≤ 0.3	33
>0.3 but < 0.7	19
≥ 0.7	47

Source: Frey and Osborne (2013)

Not only is it likely that productivity will continue to increase steadily in the United States but there is also more scope for catch-up growth in most Eurozone economies than before the crisis. Real GDP per hour worked for the Euro Area as a whole as a percentage of the U.S. level has fallen from 88.7 in 1995 to 79.9 in 2007 and 76.0 in 2013. An ageing Europe is facing the prospect of unfavourable demography reflected in rather slow growth of employment in most countries (or even steady decline in the case of Germany). Nevertheless, prima facie, it seems that with good supply-side policies medium-term growth prospects in the Eurozone, though weaker than in the United States, are better than the secular stagnation scenario might seem to suggest.

This is clearly the view of OECD (2014), as reported in Table 4. The OECD projections for European countries in Table 4 are based on the assumptions that the crisis reduced the level of potential output but has had no adverse effect on trend growth and gradual conditional convergence towards the leading economy depending on institutions and policies. It is striking that this framework leads OECD to expect much better TFP growth in the Euro area as a whole and in its troubled economies compared with pre-crisis outcomes. In particular, this will require a much better performance in market services TFP growth of which there is no sign as yet (van Ark et al., 2013) and which has been the Achilles Heel of the Eurozone in the context of excessive regulation and weak competition.

Table 4: Pre-Crisis Growth and OECD Future Growth Projections (% per year)

a) 1995-2007

	Real GDP	*Employment*	*GDP/Worker*	*TFP, 2000-7*
United States	3.2	1.2	2.0	1.8
Euro Area	2.3	1.3	1.0	0.0
France	2.2	1.1	1.1	0.1
Germany	1.6	0.4	1.2	1.0
Greece	3.9	1.3	2.6	0.1
Ireland	7.2	4.3	2.9	1.4
Italy	1.5	1.2	0.3	-1.1
Portugal	2.4	1.0	1.4	-1.2
Spain	3.7	3.6	0.1	-1.2

b) 2014-2030

	Real GDP	*Employment*	*GDP/Worker*	*TFP*
United States	2.4	0.5	1.9	1.6
Euro Area	1.7	0.2	1.5	1.2
France	2.2	0.3	1.9	1.2
Germany	1.1	-0.5	1.6	1.5
Greece	2.2	0.2	2.0	1.8
Ireland	2.3	1.2	1.1	0.8
Italy	1.5	0.3	1.2	0.7
Portugal	1.4	0.3	1.1	0.9
Spain	1.5	0.9	0.6	0.4

Sources: The Conference Board (2014) and OECD (2014)

It is certainly possible to believe that the OECD projections are too optimistic for two main reasons. First, it is likely that high public debt to GDP ratios will depress growth and second, market-friendly policies are threatened by high levels of unemployment and slow recovery from the crisis (Crafts, 2013).

Many Eurozone countries face a debt overhang and fiscal consolidation that is likely to last for many years. The long-term implications of high levels of public debt are likely to be unfavourable for growth. The adverse impacts can occur through a number of transmission mechanisms including reductions in market-sector capital formation, higher long-term interest rates and higher tax rates. Empirical research on advanced economies has found negative relationships; for example, Kumar and Woo (2010) estimated that a 10 percentage point increase in the debt to GDP ratio is associated with a fall of about 0.2 percentage points in growth. If taken literally, this could imply that the future trend growth rate would be as much as 0.75 percentage points lower than pre-crisis.[4]

[4] Although there is a significant negative relationship between debt and growth, the magnitude seems to vary across countries and the claim that a particular threshold can be identified at which the adverse effect intensifies is probably not robust (Egert, 2013).

It is generally believed that expenditure-based consolidations have a greater chance of success and it might be thought that if this argument informs post-crisis policy it would minimize harmful supply-side impacts on growth by making distortionary tax increases less likely. However, cuts in expenditure on education (which adds to human capital) and on infrastructure (which adds to physical capital) are bad for long-term growth. Unfortunately, previous episodes of fiscal stringency have been notable for their negative impact on public investment (Mehrotra and Valila, 2006). Moreover, it is noticeable that, at high levels of debt, addressing a rising debt to GDP ratio typically entails cuts in both public investment and education spending (Bacchiocchi et al., 2011). The strong likelihood that post-crisis fiscal consolidation will undermine these expenditures is not good news for the growth prospects of highly-indebted EU countries.

Across Europe in the 1930s, prolonged stagnation significantly increased the electoral prospects of right-wing extremist parties (de Bromhead et al., 2013) which were not market-friendly. In this context, not only might it be reasonable to worry about recent election results but it should also be recognized that opinion polls show disappointingly low support for the market economy in many countries which have been hit hard by the crisis.[5]

It is well-known that the Great Depression saw big increases in protectionism. Eichengreen and Irwin (2010) show that, on average, countries which devalued had lower tariffs. They argue that protectionism in the 1930s is best seen as a second-best policy which was used when the conventional macroeconomic tools, fiscal and monetary policy, were unavailable, as they are for Euro Area economies today. A recent empirical analysis confirms that weak domestic growth and losses in competitiveness continue to be conducive to protectionism (Georgiadis and Gräb, 2013) so it is perhaps not surprising that EU countries have been very prominent in imposing such measures according to Global Trade Alert (Evenett, 2014).

The bottom line is that longer term secular stagnation is not inevitable but would be the result of inappropriate supply-side policy. In any event, better supply-side policies could contribute to an outcome better than the dismal prospect in Table 2, if the politics of economic reform were not so difficult.

Supply-Side Policy Implications

If secular stagnation is a danger, there are policy responses available as is apparent from the economic history of the decades after World War II. Long-run growth prospects can be improved by pro-market supply-side policy reforms that raise future TFP growth and investment as happened through European integration economic integration from the 1950s through the 1990s (Crafts, 2015). Obviously, it is not feasible to repeat the growth of the Golden Age and, unfortunately, Europe cannot match the mid-20th century United States for innovative capabilities but it might be possible to exploit scope for catch-up and to address weak growth in service sector productivity by speeding up the diffusion of new technologies and improving resource allocation. The problem here is that policies which would work are vote losers and unlikely to be acceptable to most politicians.

[5] In response to the question 'Are people better off in a free market economy?' in 2014 only 47% in Greece, 45% in Spain and 57% in Italy agreed (Pew Research, 2014). In 2007, 67% in Spain and 73% in Italy had agreed (no data for Greece).

The most obvious way to do this is to complete the Single Market in particular with regard to services where barriers remain high and have not been significantly reduced in recent years (Fournier, 2014). Table 5 reports estimates from a dynamic general equilibrium model of the implications of this reform. These are, in fact, likely to be significant underestimates of the possible gains because the model does not capture the productivity implications of greater competition. Even so, the potential impact is considerable adding perhaps 1 per cent to the growth rate of large Eurozone economies.

Table 5: Impact after 10 Years on Level of GDP and Exports of Full Liberalization of Single Market (%)

	GDP	***Exports***
France	11.5	42.3
Germany	11.6	57.8
Italy	13.6	66.5
Spain	9.5	61.4
Small EU Countries	27.9	74.4

Note: 'small EU countries' is the EU27 minus Belgium, France, Germany, Italy, Luxembourg, Netherlands, Poland, Spain, Sweden, UK.

Source: Aussilloux et al. (2011)

Beyond this, estimates of the possible benefits from supply-side policy reforms are summarized in Table 6. Drawing on a series of OECD studies of the effects of policies on income levels and growth rates, Barnes et al. (2011) sum up by proposing improvements to the quantity and quality of education, strengthening competition, cutting unemployment benefits, reducing and reforming taxes, and lowering employment protection. These would either raise the growth rate or in some cases provide a transitional boost to growth as the economy moves to higher employment and output levels. The authors claim that addressing all policy weaknesses by moving up to the OECD average level has a potential GDP gain of 10 per cent for the average country after 10 years and 25 per cent eventually.[6]

[6] Some reforms, notably to educational systems, take a long time to pay off.

Table 6: Potential Impact on Real GDP per Person of Supply-Side Policy Reforms (%)

	Labour Market	*Taxation*	*Product Market Regulation*	*Education*	*R & D Incentives*	*Total*
Moving to OECD Average						
France	4.5	10.9	2.2	2.1	1.5	21.2
Germany	6.1	9.9	0.0	0.0	0.0	16.0
Greece	6.0	10.1	22.0	5.8	0.0	43.9
Ireland	6.8	0.9	9.7	0.0	0.0	17.4
Italy	0.3	10.8	0.3	5.4	0.2	17.0
Portugal	7.3	0.7	8.5	21.8	1.3	39.6
Spain	3.5	4.6	0.0	6.3	1.4	15.8

Source: Barnes et al. (2011).

Conclusions

It is far too soon to tell whether secular stagnation is the future of the Eurozone but the risk is surely greater than in the United States. The fact that this risk did not materialize in the past does not mean that today's fears are groundless. Nevertheless, if secular stagnation of whatever flavour is the outcome for the Euro Area, it should be clear that it is not inevitable but will be the result of policy mistakes. Future technological change will continue to permit decent productivity growth if its diffusion is encouraged by good supply-side policies and history gives us a template to escape from depressed economy conditions.

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Established in January 2010, CAGE is a research centre in the Department of Economics at the University of Warwick. Funded by the Economic and Social Research Council (ESRC), CAGE is carrying out a 10 year programme of innovative research.

The centre's research programme is focused on how countries succeed in achieving key economic objectives such as improving living standards, raising productivity, and maintaining international competitiveness, which are central to the economic wellbeing of their citizens.

Our research analyses the reasons for economic outcomes both in developed economies like the UK and emerging economies such as China and India. We aim to develop a better understanding of how to promote institutions and policies which are conducive to successful economic performance and endeavour to draw lessons for policy makers from economic history as well as the contemporary world.

Research at CAGE examines how and why different countries achieve economic success. CAGE defines 'success' in terms of well-being as well as productivity. The research uses economic analysis to address real-world policy issues. The centre is distinctive in providing a perspective that draws on economic history as well as economic theory and is applied to countries at various different stages of economic development.

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