DIRECTORATE GENERAL FOR INTERNAL POLICIES

POLICY DEPARTMENT A: ECONOMIC AND SCIENTIFIC POLICY

Economic Growth versus Austerity

NOTE

Abstract

Optimal economic growth requires that there is enough effective demand to absorb the potential output the economy can generate. If demand is too high, it leads to inflation, which will be countered by restrictive monetary policies. If it is too low, investment will fall and lower actual GDP growth will also have detrimental effects on long run growth. It is shown that the Euro Area is presently compounding its economic woos by an excessively restrictive fiscal policy stance. A reform of the Stability and Growth Pact is proposed.

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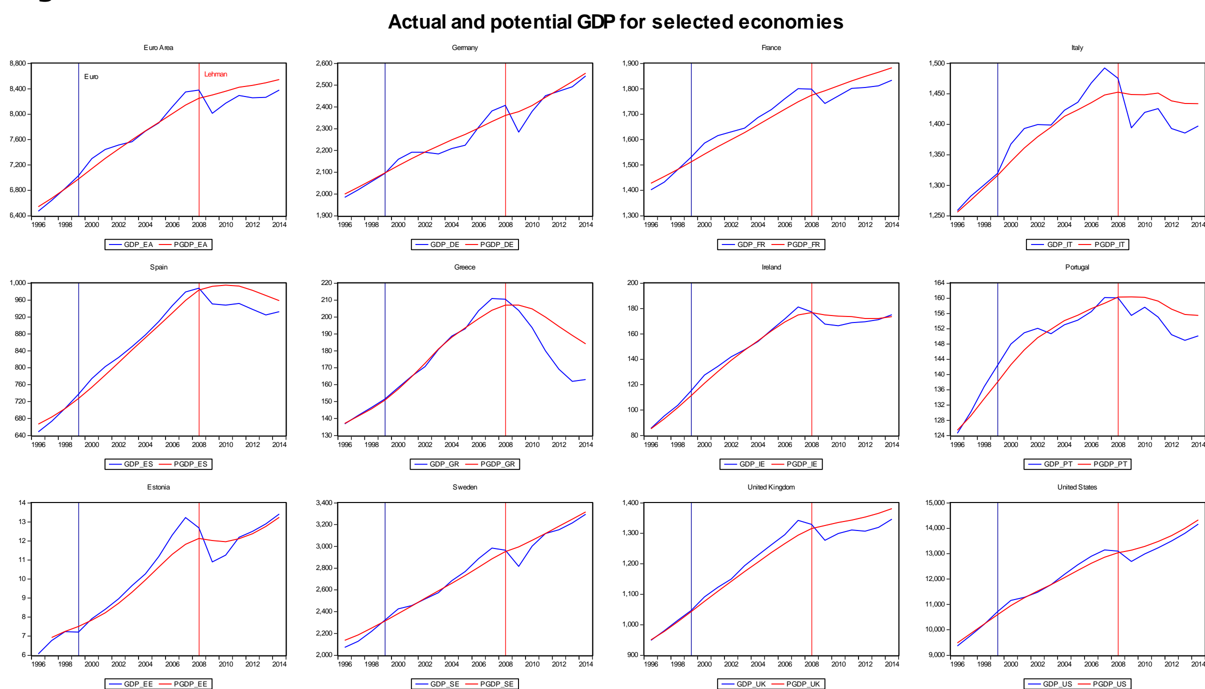
INTRODUCTION

As the Euro Area enters its fifth year of crisis, it is time to reflect on whether we are on the right track. The dominant policy consensus deserves re-examination: unemployment rates are at historic records, recession is back in most member states, the risk of poverty is shooting up, and public debt ratios are hardly coming down. In this context, the question must be asked whether austerity has helped to stabilise the economy or whether it has aggravated the crisis. In this note, I will present some evidence that excessive austerity is counterproductive to economic and social stability.

1. THE DEPTH OF THE CRISIS

Triggered by the Lehman bankruptcy in 2008, the global financial crisis has caused a major loss of output and income in most economies of the globe. Figure 1 gives evidence for the Euro Area, some Member States and the United States. Although the fall in income is significant everywhere, some economies, notably Germany and Sweden, have quickly pulled out of the recession and are producing output at their potential capacity again; Estonia, which is sometimes named a successful adjustment example has indeed returned to growth, although its productive capacity was also reduced during the crisis. The United States is also on track of fully absorbing its potential output capacity. In the Euro Area as a whole, however, and especially in the crisis economies in the South, actual GDP is lagging behind potential; but while the output gap[1] is closing in most Euro Area economies, this effect is often a consequence of lower or even negative *growth* of productive capacities. The crisis has therefore a detrimental long run impact on the economy, which translates in rising unemployment and public debt.

Figure 1:



Source: AMECO.

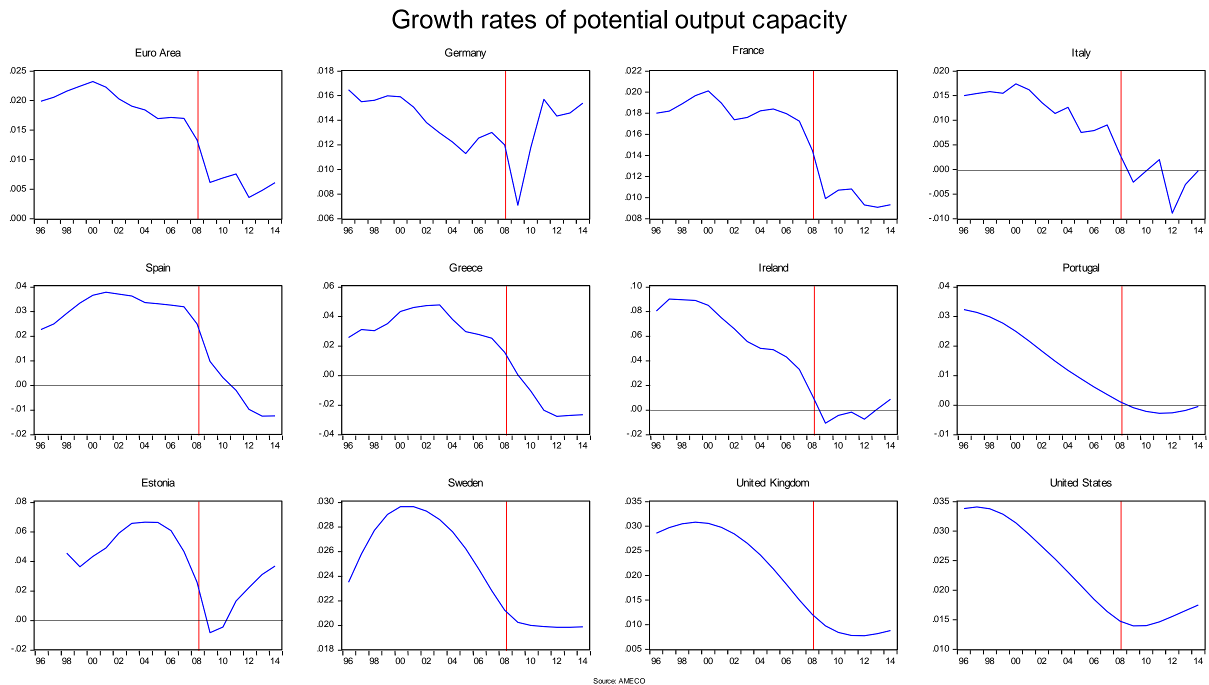
Since it started in 1999, the Euro Area has experienced two booms with demand exceeding supply capacities; one in 1999-2000 and a second just before the global financial crisis (see Figure 1). Booms also occurred in other economies during those years, although in the United Kingdom, Sweden, or the USA they were longer and stronger and causing higher inflation. Yet, while previous booms were simply tuned down to meet potential supply, the crash after 2008 caused not only huge output losses everywhere, but it also lowered potential growth in many economies.

This is shown even clearer by Figure 2. While potential growth in the Euro Area was around 1.5% before the crisis, it dropped below 0.5% after 2009. Only Germany has returned to capacity growth rates similar to the pre-crisis period, although those rates were well below the Euro Area average and only half of the Anglo-Saxon performance. Thus, Germany's traditional characteristic of a slow-growth economy is presently masked by the troubles in

[1] The output gap is the difference between actual GDP and the potential output capacity of an economy, determined by the available labour force, the stock of capital and total factor productivity.

competing economies[2]. More seriously, in France, the UK, the USA, Sweden and Estonia, the crisis had slowed down potential growth, and in the south of Europe productive capacity is even shrinking.

Figure 2:



Source: AMECO.

These developments have very significant negative consequences for the labour market. Instead of absorbing a growing labour force, shrinking capacities generate unemployment and push a growing share of the labour force out of productive employment. Slower growth will also negatively affect the dynamics and sustainability of public debt. It must therefore be the primary objective of economic policy in Europe to reverse these developments.

[2] Some factors contributing to Germany's slow growth is the absence of domestic consumption as will be shown below.

2. POLICY RESPONSES

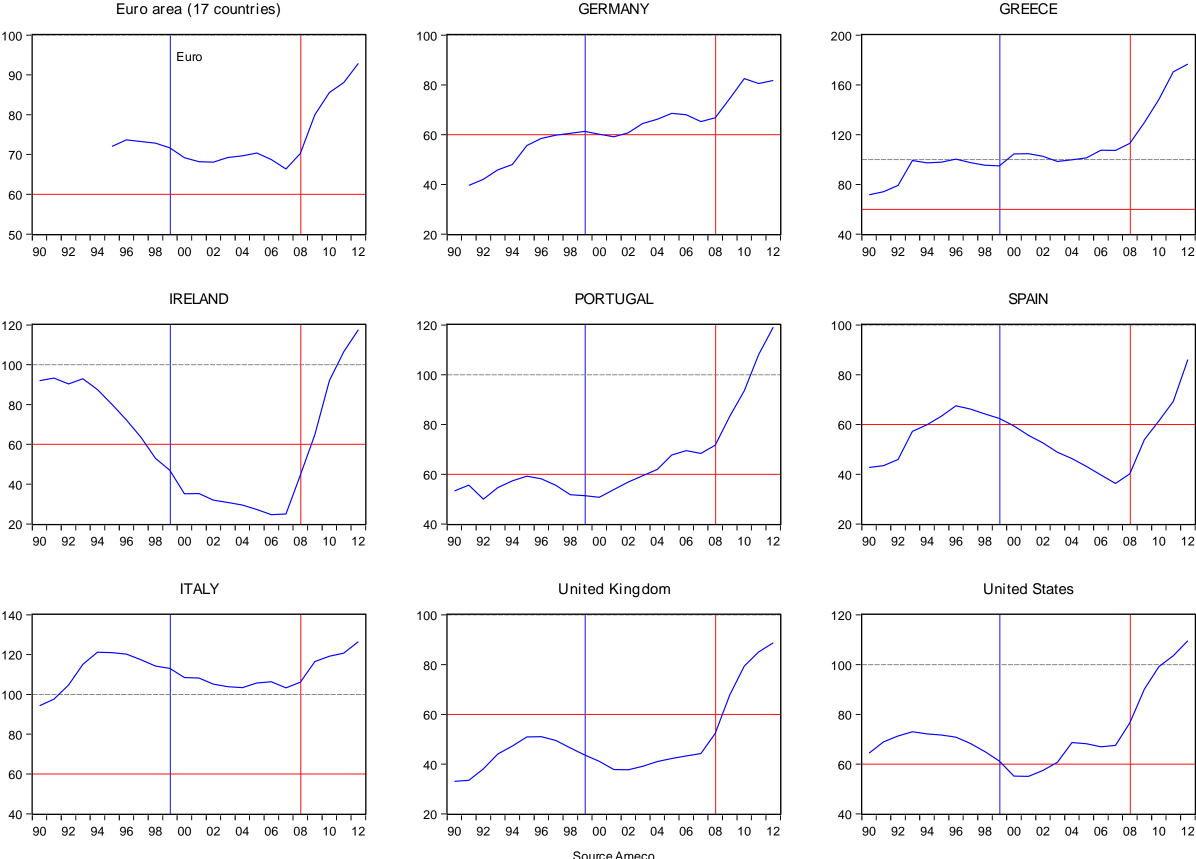
In the immediate aftermath of the crisis, all G20 nations agreed that, given the climate of general uncertainty and dysfunctional financial markets, stimulating effective demand by public borrowing was necessary to avoid a severe depression. The United States, China, Japan and the UK announced large spending packages, although the Euro Area was more reluctant. Germany and France did undertake stimulative measures, Italy did not. The stimulus worked. A sustained depression was avoided and even Italy benefitted from the spillover for its exports. But while growth returned, it did so in most cases at lower rates than before.

As soon as the world seemed to pull out of the global financial crisis, Europe was shaken by the debt crisis, which turned into a full-fledged Euro crisis. When the newly elected Papandreou government in Greece revealed the misdemeanours of its predecessor, confidence in Europe's fiscal policy framework, and especially into the Stability and Growth Pact, collapsed. Investors rapidly dumped Greek government debt from their portfolio, yield spreads shot up, the Euro interbank market froze, and soon the crisis spilled over to Ireland, Portugal and the rest of Southern Europe.

At that point, Europe's policy consensus started to deviate from global wisdom. Given that excessive debt seemed to be the problem, fiscal consolidation became the dominant theme for policy makers. Sometimes extremely harsh austerity measures were imposed on Member States with rapidly rising debt ratios. It was argued that high deficits were a sign of fiscal irresponsibility and needed to be reined in by cutting expenditure and rising taxes. However, despite these measures, the situation got worse.

Figure 3 shows, that the rapid increase in public debt ratios was a direct consequence of the global financial crisis. Fiscal profligacy may have prevailed in Portugal and Germany, also in France (not shown), but the Euro Member States with the greatest debt problems, such as Ireland, Greece and Spain, have seen stable or falling debt ratios before 2008 and extremely rapid increases thereafter. In fact, if there is one factor that these countries share, it is not budget irresponsibility before the crisis, but large output gaps since 2008 (see Figure 1).

Figure 3:



The European policy response to rising debt ratios was fiscal tightening at a time, when most countries were still experiencing negative output gaps. By contrast, in the USA public borrowing was deliberately used to stimulate aggregate demand. These different policy orientations must have had important consequences for the two economies.

3. POLICY CHOICES: STIMULUS OR AUSTERITY?

Fiscal policy must be seen in its economic context and over time. There are times when the economy needs to be stimulated and others when austerity is justified. The overall policy purpose must be to keep the demand for goods and services in balance with the capacity of supply. Demand is determined by spending on investment goods, private and public consumption plus the demand from the rest of the world. Under normal conditions, private demand for investment and consumption responds to interest rates and monetary policy, but in a sever crisis where trust in banks has vanished and general uncertainty blocks spending by firms and households, the government must step in. Public spending financed by credit can then compensate for insufficient private demand. However, this is only justified as long as the output gap is negative for otherwise public spending would ignite inflation.

Austerity is generally understood as a policy of deficit reduction by cutting public expenditure or rising taxes. It implies less public service and often lower public wages and employment. However, in broader terms, it may include also the reduction in private consumption caused by lowering wages and increasing savings. When austerity is used to reduce current account deficits, it may imply lower public borrowing and a reduction in the investment-savings relation.

Thus, in order to assess whether austerity is a desirable policy or not, a benchmark is needed. This is the output gap. A positive output gap implies that aggregate spending (demand) in the economy exceeds the potential supply, so that there is pressure for prices to increase. In that case, austerity would be a policy recommendable to stabilize the economy. Alternatively, a negative output gap implies a lack of demand that may push prices down or, more likely, reduce entrepreneurs' willingness to invest, thereby decreasing potential output capacity and weakening employment. In that case, stimulating demand by increasing private and public spending is required to stabilize the economy. Thus, one has to distinguish clearly between the levels of aggregate spending relative to the value of potential output, and the changes in spending, which reflect stimulus and austerity. Whether austerity is good or bad depends on the specific position of the economy. See Table 1.

Table 1: Economic policy options

	Excess demand	**Demand gap**
Stimulus is:	*bad*	*good*
Austerity is:	*good*	*bad*

From Table 1 we can deduct the right fiscal policy stance for governments. Fiscal tightening, and therefore austerity, is necessary when aggregate demand exceeds supply capacities, for otherwise risks of inflation emerge. On the other hand, when demand is insufficient to absorb the output capacity, austerity is self-defeating, because the lack of demand for products pushes firms to reduce investment and staff.

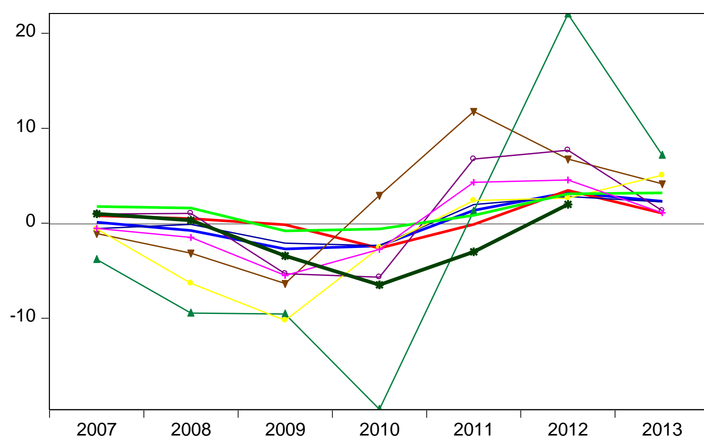
How important are the differences in fiscal policy stances in Europe? One commonly used variable to measure the policy stance is the change in the primary budget position, i.e. the deficit adjusted for cyclical variations and net of interest payments. The fiscal stance is tightening when the change in the primary position is positive and loosening when it is negative. Yet, the fiscal stance is not exactly identical with the stimulus packages of 2009, for it shows only loosening or tightening over and above the cyclically adjusted budget position. Some of the huge stimulus packages in 2009, for example in Germany, have

simply responded to the growing output gaps and thereby avoided a deep recession, but they did not necessarily generate additional growth impulses.

Furthermore, because investment decisions are made under long run considerations, it is not enough to stimulate demand only in the short run, say in one year alone. Fiscal policy has to be assessed in a multi-annual perspective. Thus, in order to measure the long run impact of fiscal policy in Europe, Figure 4 gives the cumulative effect of the fiscal stance since 2007 for several countries.

Figure 4:

Cumulative fiscal stance



Source: for Europe: Ameco and own calculations; for the USA: OECD and White House.

For the Euro Area as a whole, fiscal policy was mildly stimulative until 2011. Italy did hardly loosen in its fiscal stance, presumably because it debt ratio was already one of the highest in Europe, while Germany did become more accommodating, but only in 2010. The biggest loosening was observed in Ireland, Spain, Greece and France in 2009, while in 2010 most Euro Area members were already tightening their budget position again. In Ireland, the fiscal adjustment came with one year delay, but then it was all the more draconian.

The rapid return to fiscal tightening may be a fault of the Stability and Growth Pact (SGP), which stipulates[3] that the excessive deficit procedure is suspended in case of a severe economic downturn "*if the excess over the reference value results from a negative annual GDP volume growth rate or from an accumulated loss of output during a protracted period of very low annual GDP volume growth relative to its potential*." However, when GDP growth bounces back into positive territory the suspension is revoked because the pact defines the exceptionality of the situation only in terms of growth rates and not in terms of output levels relative to potential. As a consequence, 12 Euro Area Member States have been declared to have "*excessive deficits*" already by the end of 2009,[4] which need to be corrected by 2013. Thus, not only does the Stability and Growth Pact lead to a rapid and early fiscal consolidation, which is damaging long term growth as will be shown below; but in addition, it was applied in an overly restrictive way, which was probably in contradiction with the legal text.

[3] Council Regulation (EC) No 1056/2005of 27 June 2005 amending Regulation (EC) No 1467/97 on speeding up and clarifying the implementation of the excessive deficit procedure, Article 1.

[4] http://ec.europa.eu/economy_finance/economic_governance/sgp/deficit/index_en.htm (accessed 21.1.2013).

The contrast is striking when one compares the Euro Area with the United States, which does not have such institutional constraints. Until 2012, the Obama administration has pursued anti-cyclical stimulating policies. This has, of course, given rise to higher debt ratios (Figure 3), but it has also helped to close the gap between productive capacity and effective demand (Figure 1) and it has even stimulated growth in potential GDP. By contrast, in the Euro Area debt ratios are also rising, but the restrictive fiscal stance prevents the closing of the output gap and lowers productive capacities. This worsens the debt ratio because of GDP in the denominator of the ratio, and because the reduced income yields less tax revenue.

4. THE IMPACT OF AUSTERITY ON ECONOMIC GROWTH

It is often thought that fiscal policy (or monetary policy in normal times) should aim at closing the output gap in the short run. This is the core of business cycle policies (Konjunkturpolitik). However, from a growth perspective, demand management is not just a matter of avoiding cyclical variations around the long run trend of a steadily growing economy. It is also about generating an environment, which sets incentives for productive investment and entrepreneurial initiative. Long run growth of productive capacity depends on a wide range of supply side factors. Improving these factors is the purpose of structural reforms, although it is clear that supply side policies will remain without effect if demand is insufficient to justify investment. This is why a more coherent and active macroeconomic policy for the Euro Area is so important.

The problem of demand management in the long run is more complex than simple Konjunkturpolitik, because potential output is not static. Usually potential output is calculated by a Cobb-Douglas production function, which assumes full employment of the labour force and capital stock and a given rate of technological progress (Total Factor Productivity - TFP, also called Solow residual). A long line of research has identified Research & Development (R&D) spending, human capital accumulation, public infrastructure, labour market flexibility and a number of efficiency variables as prominent explanations for the rate of technological progress, although the all deeper causes of economic growth are not yet fully understood (Helpman, 2004). However, given that these structural factors, and especially technology, will improve with economic growth, the growth of productivity is endogenous to the overall increase in output. A sustained slowdown of actual growth will therefore also reduce potential growth.

By definition, economic growth is a long run phenomenon. The complication for demand management derives from the fact that a negative output gap (i.e. a lack in demand relative to potential output capacities) will affect the rate of investment and therefore the level of the capital stock as well as the development and adaptation of technological innovation. By contrast, a positive output gap ignites inflationary pressures, which will be met by restrictive monetary policies, which may in the long run also reduce investment and growth.

There are two channels through which aggregate demand will affect future potential output: first, a negative output gap is a static indicator for insufficient market opportunities. A negative output gap will therefore lower investment and future output, especially when the lack of demand is persisting for a long time. Second, the dynamics of market opportunities can be measured by the difference between actual and potential GDP growth. If actual GDP grows faster than potential, a negative gap is closing; if it lags behind potential, the market dynamic worsens and this will accelerate the loss of investment and potential growth. Thus, a negative differential between actual and potential GDP growth leads to a negative feedback loop, which will cause the economy to stagnate or shrink.

To test whether this hypothesis of a long run reduction of the potential growth rate due to insufficient demand holds up, we have estimated a panel regression for Euro Area Member States, where the dependent variable in the first part is the potential growth rate and in the second the investment rate. As regressors we have taken the cumulative output gap between the moments when it switches from positive to negative or the other way round. Because a positive output gap is inflationary, we have also added the GDP deflator and separated periods with positive and negative cumulated gaps. Finally, we have also added the variable for investment, which catches all kinds of structural influences.

Table 2: Effect of cumulative output gap on potential GDP and investments

	Dependent variable: log(PotGDP)						Dependent variable: log(Inv)		
	1981-2012	1990-2012	1999-2012	1981-2012	1990-2012	1999-2012	1981-2012	1990-2012	1999-2012
CumGap +	0.024 [0.072]	0.034 [0.049]	0.022 [0.018]	0.069 [0.065]	-0.062 [0.073]	-0.055* [0.032]	0.027** [0.012]	0.033** [0.012]	0.007 [0.009]
CumGap -	-0.206** [0.073]	-0.201*** [0.059]	-0.121** [0.056]	-0.023 [0.091]	0.011 [0.104]	-0.339* [0.182]	-0.057*** [0.015]	-0.072*** [0.021]	-0.106** [0.043]
GDP defl	19.632** [9.035]	-0.044 [7.569]	12.819 [9.550]	14.177** [7.182]	10.562 [10.550]	3.339 [22.713]	1.979** [0.683]	1.039 [0.901]	0.59 [2.859]
log(Inv)				3.104** [1.293]	2.848** [1.110]	1.907* [1.095]			
N	383	264	168	375	257	163	375	257	163

Standard errors in brackets. *significant at 10% level; **significant at 5% level; ***significant at 1% level. Cum Gap+ =Cumulative positive gap in % of GDP; Cum Gap- =cumulative negative gap in % of GDP; GDP defl= GDP deflator;log(Inv)=log of net investment (2005 prices). Estimator: Common Correlated Coefficients Mean Group Estimator (CCEMG). Data are from AMECO.

The results in Table 2 support our hypothesis. Prolonged negative output gaps in the Euro Area will reduce potential GDP, because the lack of demand will disincentivize investment (columns 1-3).[5] This phenomenon is less clear for the periods of 1990-2012, which is dominated by many structural reforms due to the creation of the European internal market. This is supported by column 5, where the investment variable catching structural effects is strongly significant. However, for the monetary union era 1999-2012, our model is well supported by the data: a negative cumulated output gap lowers the potential growth rate, and structural reforms which increase capital accumulation raise the growth potential. The channel through which this effect is generated is the rate of investment, which falls the longer and larger the output gap remains negative. Inflation does not matter, presumably because the ECB has been successful in maintaining price stability. This may also be the reason, why positive output gaps do not generate higher growth: excess demand, which may generate inflation, will be countered by higher interest rates, which will reduce investment and potential growth.

Thus Table 2 presents supporting evidence that long lasting negative output gaps will reduce the growth rate of productive capacity. The question is then, which factors are affecting aggregate demand in the Euro Area.

[5] The negative gap is expressed in absolute terms so that a negative sign signals that an increasing negative gap will reduce potential GDP.

5. THE CONTRIBUTION OF EFFECTIVE DEMAND COMPONENTS TO ECONOMIC GROWTH

According to standard national income accounting practices, aggregate demand consists of changes in inventories, investment (Gross Fixed Capital Formation), private and public consumption and the trade balance. Figure 5 shows the contribution of these demand components to the GDP growth rates.

Figure 5:

This first panel gives a long term overview of demand component in the Euro Area for half a century. The important information is that growth was strongly driven by private investment and private consumption in the glorious 1960s and again in the growth period of the late 1980s. However, the absence of any significant investment since the 1990s is puzzling. The relatively positive growth performance of the first euro-decade was entirely

driven by private and public consumption and net exports. Since the Euro-crisis even private consumption has shrunk, public consumption has nearly disappeared and the only significant driver of growth is net exports.

The performance of individual Member States is varied. Germany is dominated by exports, occasional investment and hardly any contribution from private or public consumption. In France, consumption has been important in the first decade of the euro, but it has been cut during the crisis. In Italy, public consumption was important in the first years of EMU, but since 2008 all components have been shrinking. High growth in Spain was dominated by investment and private consumption before the crisis, but now investment and exports have turned negative. Greece is characterized by a collapse of private consumption, investment and exports and an absence of public consumption. In Ireland, net exports have compensated the collapse of domestic demand, while in Portugal exports and investment are pulling the economy down. Outside the Euro Area, we find that the Blair-boom in the UK was mainly consumer driven, but in recent years the economy has become totally dependent on a weak foreign trade performance. Finally in the USA, and in contrast to Europe, private consumption is the single most important demand component, which also stimulates investment, although in recent years public consumption has compensated some of the private demand weakness.

6. CONCLUSION

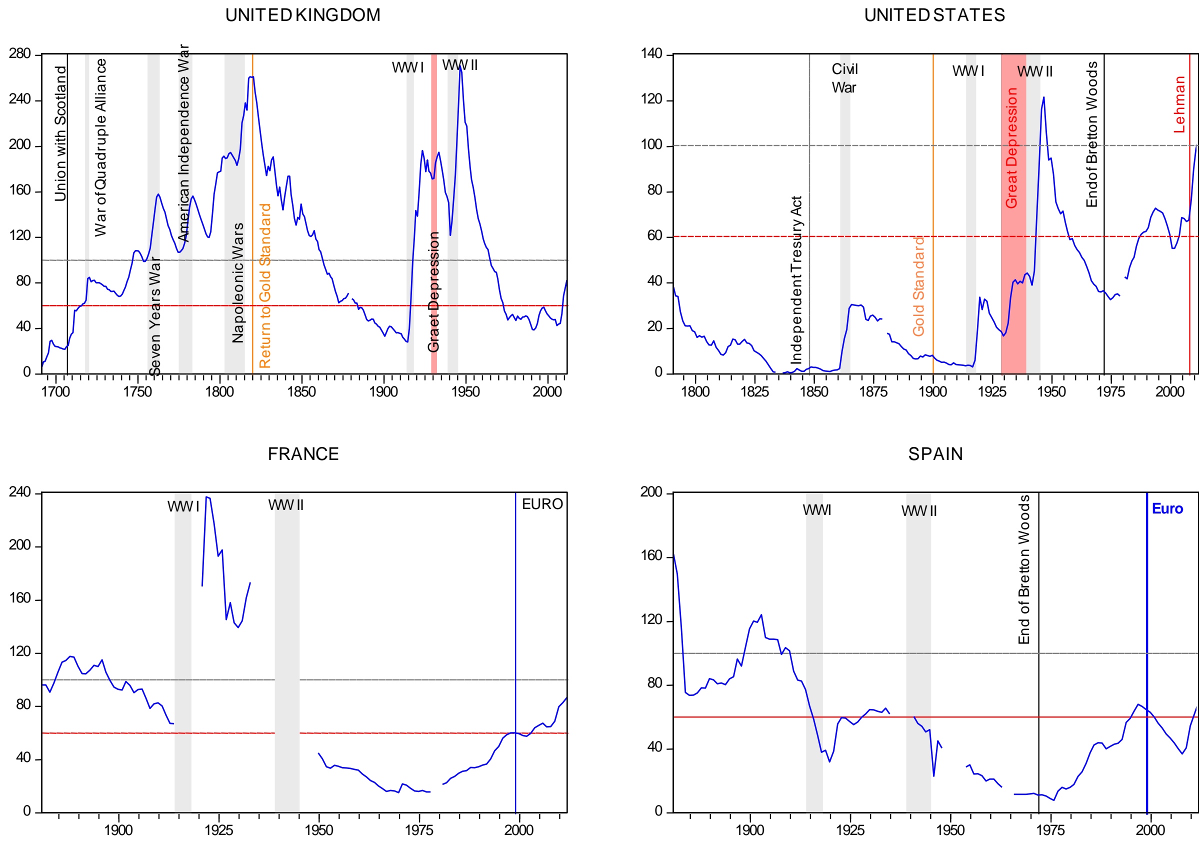
The overall lesson from our considerations is clear. While the financial crisis has caused a credit crunch, with banks deleveraging their balance sheets and the corporate sector cutting costs, austerity, i.e. reduced spending for private and public consumption, has destroyed the incentives for further investment in Europe. Only exports are presently a source for economic growth. This means that the economic woos of the Euro Area are largely self-made: the collapse of domestic demand leads to a slowdown of long run economic growth, rising unemployment and social problems and a worsening of public finances.

Is there an alternative to austerity? The United States have taken a different policy track, which seems more successful. Public spending has complemented private consumption and both are stimulating investment; the positive outlook has calmed financial markets. By contrast, in Europe the financial crisis is perpetuated by a rigid imposition of austerity on member states, which find their productive capacity seriously harmed.

Under these circumstances, credit-financed public spending should remain a policy instrument for the Euro Area in order to stimulate private economic activity. This would require suspending the rigid constraints of the Stability and Growth Pact and Fiscal Compact until the output gap has been closed again. Once the situation normalizes, a tight fiscal control regime is of course necessary to prevent similar crises in the future. The amended Council Regulation (EC) No 1467/97 should therefore be amended to refer to the levels rather than the growth rates of actual and potential GDP.

One may object that public debt ratios in Europe are already too high and do not provide any room for further public borrowing. It might be useful to place this discussion in its historic context. Debt ratios of 100% or more have occurred before in history without ruining a country's economy (see Figure 6). While wars have been the main reason for higher public debt, economic depression and the unification of countries have also been important factors for rising debt. What has always brought down public debt has been economic growth. The unification of Europe would certainly deserve a period of higher debt that leads to higher growth in the future.

Figure 6:



Source: Abbas et al. (2010).

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