

# Finland and Its Northern Peers in the Great Recession

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## Finland and Its Northern Peers in the Great Recession

### Abstract

The report focuses on the relative macroeconomic performance since the global financial crisis of six Northern European countries with a special emphasis on Finland. While fiscal and monetary policies have definitely impacted on macroeconomic outcomes in the six countries examined, as a whole they do not appear to be the key driving forces of the differences observed between the countries. The initial vulnerabilities, the nature of shocks and the resilience of the economies appear more important in explaining the differences. In particular, the weakness of growth in Finland can best be explained by a series of exceptional negative shocks in combination with a too weak capacity of the economy to improve its cost competitiveness in the absence of exchange rate flexibility.

**Key words:** Macro economy, fiscal policy, monetary union, competitiveness, Finland

**JEL:** F45, F47, E63, E65, P52

## Suomi ja sen pohjoiset verrokkimaat Suuressa Taantumassa

### Tiivistelmä

Raportissa tarkastellaan kuuden Pohjois-Euroopan maan kokonaistaloudellista kehitystä globaalista finanssikriisistä lähtien kiinnittäen erityistä huomiota Suomeen. Vaikka finanssi- ja rahapolitiikat ovat ilman muuta vaikuttaneet makrotalouden kehitykseen tarkastelluissa kuudessa maassa, ne eivät kuitenkaan näyttäisi olleen maiden välisten erojen avainajureita. Talouksien haavoittuvuus, niiden kohtaamat shokit ja sopeutumiskyky näyttäisivät olevan tärkeämpiä erojen selittäjiä. Suomen heikko kasvu selittyy parhaiten talouden kokemilla poikkeuksellisilla negatiivisilla shokeilla yhdessä sen kanssa, että talous ei ole kyennyt parantamaan kustannuskilpailukykyään tilanteessa, jossa valuuttakurssijoustoa ei ole.

**Asiasanat:** Makrotalous, finanssipolitiikka, rahaliitto, kilpailukyky, Suomi

**JEL:** F45, F47, E63, E65, P52

## 1 Introduction

All developed economies have been affected by the Great Recession triggered by the global financial crisis. However, the impacts have varied a great deal depending on the initial vulnerabilities and the extent to which policies have succeeded in smoothing the shocks and helped to make the necessary adjustments.

In Europe, the crisis centred on a few Euro area countries, Greece, Ireland, Portugal, Cyprus, Spain and to a lesser degree Italy. A key common denominator in these cases was that all of them had credit-fuelled booms, ran large current account deficits prior to the crisis, and were constrained in adjustment by the lack of their own currency (Baldwin and Giavazzi, 2015). Many of these countries have been claimed to have had weak institutions which have contributed not only to the rapid increase in debt but also to inefficient uses of the borrowed funds and fragile financial systems leading to large scale banking problems during the crisis. All of these countries tightened fiscal policy in the midst of the crisis – in some cases drastically – in response to the rapidly weakening public finances.

Also some Northern European countries which have not had current account deficits and which are usually thought to have strong economic and political institutions were badly hit and have not fully recovered from the crisis. Among them the worst performer is Finland. This is somewhat paradoxical, as Finland has been ranked as one of the most competitive economies for example by the WEF, had one of the largest cumulative current account surpluses of all EU countries during the decade prior to the crisis, and has not experienced any banking problems during the crisis.

This suggests that also other factors have been in play. Tight fiscal policies are an obvious potential cause of weak growth. In many policy commentaries this has been singled out as a key factor for individual countries and the Euro area as a whole (e.g. De Grauwe and Yi, 2013 and Krugman, 2015). Slow easing of monetary policy (including a temporary tightening period) by the ECB has also been identified as a drag on growth in the Euro area and particularly in the crisis countries. And of course, country-specific shocks may have been important for some countries. The most obvious example is Finland, where the decline of Nokia's mobile phone business has often been mentioned as a central cause of the economic difficulties of the country. Such an asymmetric shock can be particularly damaging within the Euro area, where the exchange rate and interest rates cannot respond to country-specific shocks.

In this paper we try to shed some light on the role of macro policy factors in accounting for the economic performance of six Northern European countries with a special emphasis on Finland. Apart from Finland we look at Sweden, Denmark, Germany, the Netherlands and the UK. While these countries are all highly developed and have had roughly similar living standards, fiscal and monetary policies have not been identical. Comparing the performances of Finland, Sweden and Denmark is of particular interest as these countries share many institutional features while they have different monetary policy arrangements and have also carried out somewhat different fiscal policies.

We proceed by first documenting the broad features of these countries' macroeconomic performance from the turn of the century onwards. Second, we describe fiscal and monetary pol-

icies and discuss whether differences in these policies might explain the observed variation of macro outcomes. Third, we discuss some specificities of the Finnish economy and the extent to which they might explain the exceptionally weak growth since 2008. This leads to the question whether being part of the monetary union has indeed been a handicap for Finland.

Our analysis suggests that while fiscal and monetary policies have definitely impacted on macroeconomic outcomes in the six countries examined, as a whole they do not appear to be the key driving forces of the differences observed between the countries. In particular, the weakness of growth in Finland can best be explained by a series of exceptional negative shocks in combination with a too weak capacity of the economy to improve its cost competitiveness in the absence of exchange rate flexibility. It thus seems that other adjustment mechanisms have not so far compensated for the loss of monetary autonomy in the case of Finland.

## 2 Salient features of macroeconomic performance

The first observation is that growth has varied a great deal among the six countries and even the three Nordics over the whole period. Until the crisis Sweden, Finland and the UK grew almost identically and much faster than the other countries; GDP was up by around 30 % in 8 years for these three countries while the Netherlands and Germany achieved only half or two thirds of that growth.

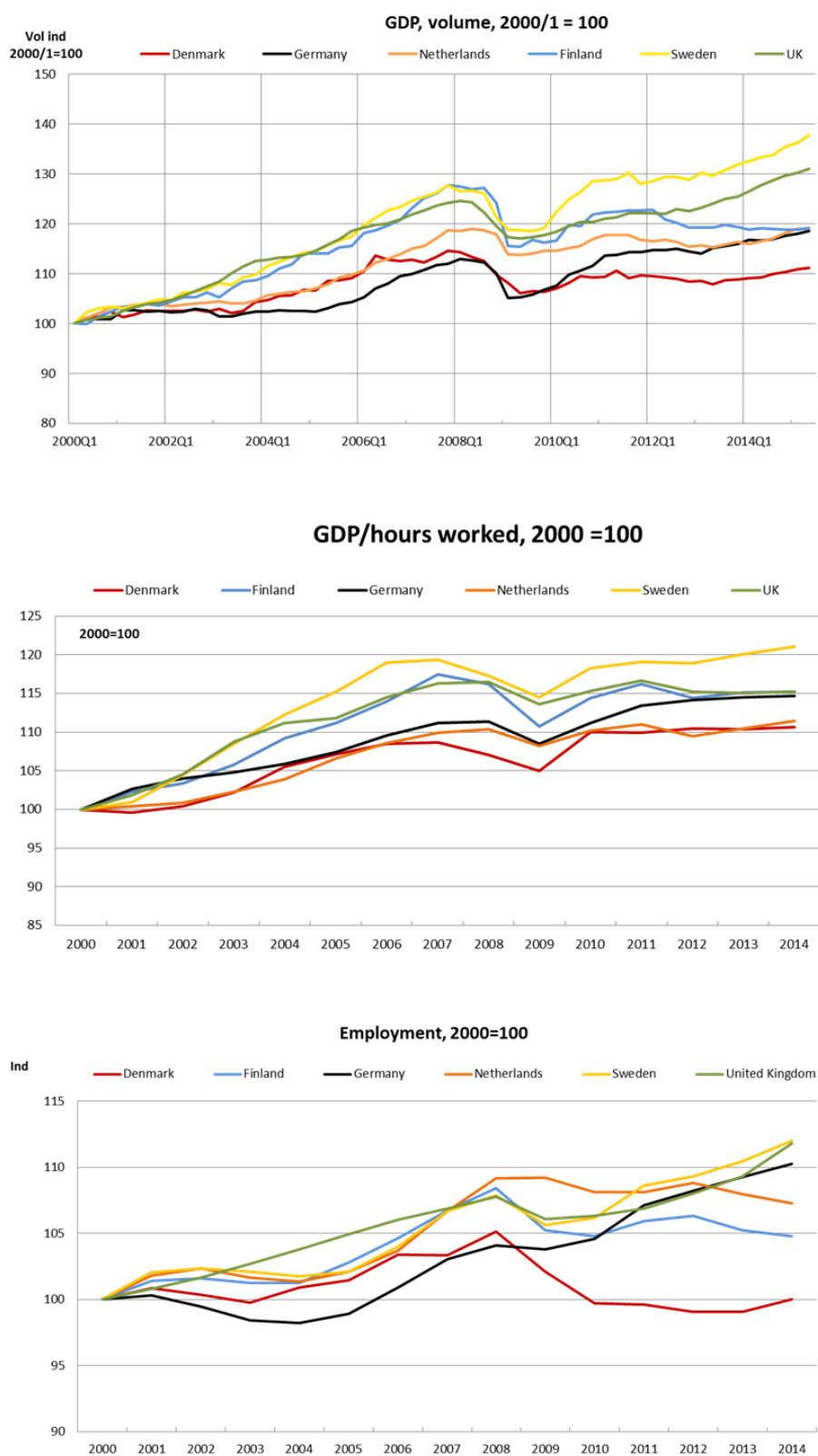
The crisis impacted on all but Finland was hit the hardest as it lost 8.5 % of GDP in 2009 while the others lost 5 per cent or less. Since 2009/2010 two groups of countries emerge. Sweden, the UK and Germany have recovered well and in all three GDP exceeded the pre-crisis peak by the end of 2014 while in Sweden and Germany this level was reached already in 2011. In contrast, growth has been anaemic in Finland, Denmark and the Netherlands, with only the Netherlands having reached the pre-crisis GDP level by the end of 2014. Of these Finland is doing the worst. After an initial partial recovery, Finland's GDP has been on a downward path since early 2012, while the Netherlands and Denmark have grown since 2013.

All six countries enjoyed robust employment growth prior to the crisis. However, since 2009 the employment patterns have deviated greatly. In the fast growing Sweden, the UK and Germany employment has increased robustly, while employment in the other three countries has either stagnated or been on a slightly declining trend since the initial shock, which was the biggest in Denmark.

Productivity displays interesting patterns. Prior to the crisis, Sweden, the UK and Finland had the best overall productivity performance. As with employment, all countries experienced a deep drop in productivity in the midst of the crisis. Since 2009 only Sweden and Germany have shown significant growth while productivity has more or less stagnated in the four other countries.

We thus have three types of countries in terms of growth and its supply composition in recent years: the UK has grown thanks to rapidly growing employment, in Sweden and Germany both employment and productivity have contributed to growth, and finally in the three weakest growing countries Denmark, the Netherlands and Finland both employment and productivity have grown only very modestly at best.

Figure 1 GDP, productivity and employment



Source: Ameco.

The evolution of the major demand components reveals rather different growth compositions, too. In Germany, growth has been overwhelmingly based on the rapid growth of exports, throughout the period since 2000, while fixed investment and consumption growth has been modest until recently.

In Sweden the situation is much more balanced. After performing quite well prior to the crisis, exports resumed their robust growth also after the 2009 shock, only to stagnate once again from 2011 to 2013 after which they started to grow again. The cumulative export growth has been, however, much weaker than in Germany. Investments in turn have grown much better than elsewhere since 2009, and consumption has been on a steady upward trend since 2009. The third strong performer, the UK, has relied to a large extent on domestic demand and particularly on private consumption as a source of growth, both prior to the crisis and in the recovery phase.

Of the three remaining countries, Denmark's flat GDP growth since 2009 stems from essentially unchanged consumption and investment levels, while exports have contributed marginally to growth. In the Netherlands, investments have performed as in Denmark while private consumption has declined. The weak domestic demand growth has been partly offset by stronger export performance in the Netherlands.

Finland deviates from the rest in that the weakness of growth appears to be stem from essentially anaemic export performance. Exports have remained flat since the initial very partial recovery in 2009/2010. Since 2010 investments have declined steadily. The decline has concentrated in private investment – both business and housing – while public sector investments have held up quite well. Private consumption, which recovered well between 2009 and 2011, levelled off in 2012 and has remained flat ever since.

The evolution of demand components is reflected in the economies' external balances. Current account surpluses have hit new highs in the Netherlands and also Germany, Sweden and Denmark have continued to post large surpluses. In contrast, Finland, which had the largest surplus in the turn of the century, has become a deficit country to the same degree as the UK.

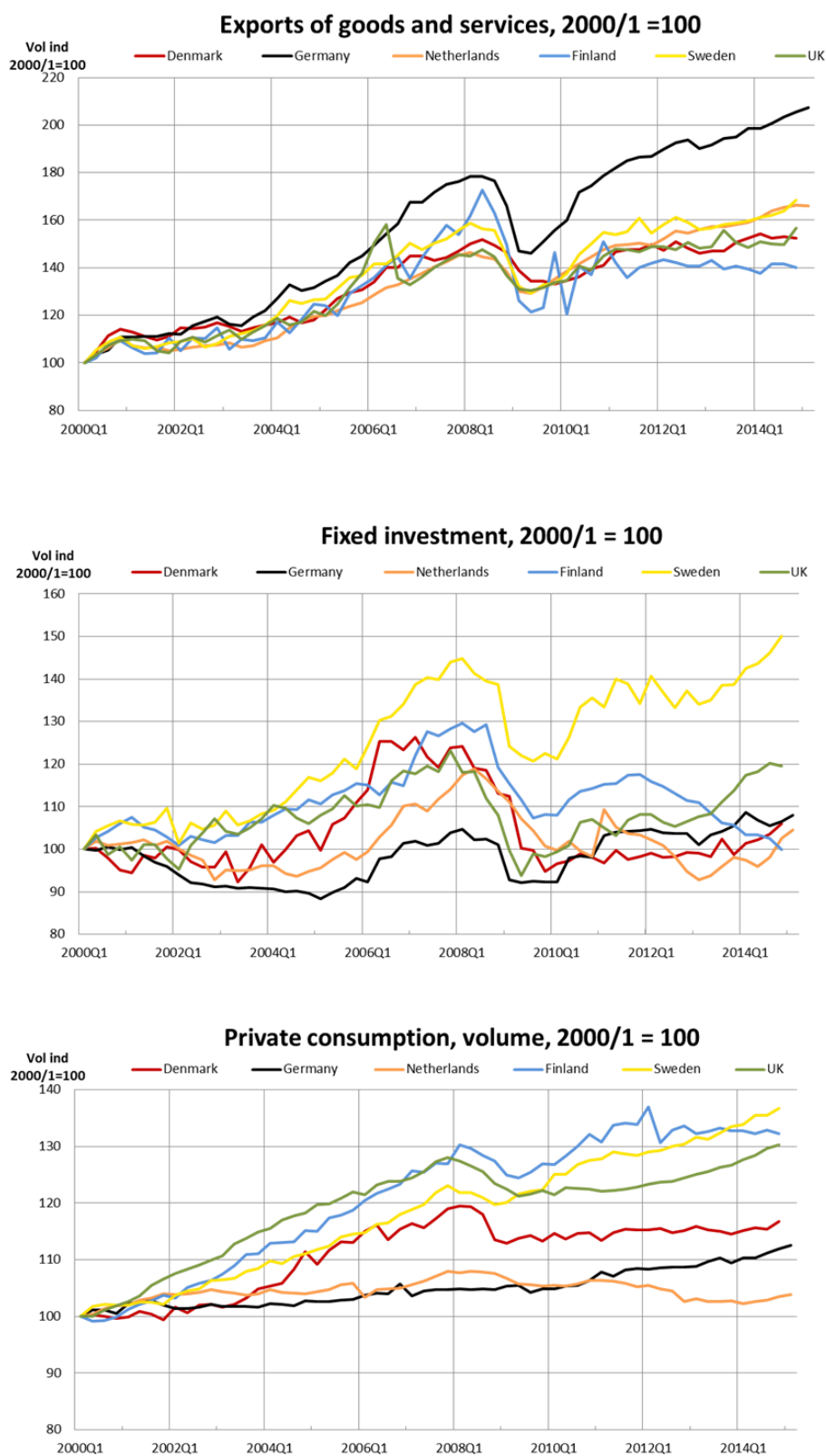
The variation in the employment patterns is obviously reflected in the unemployment and employment rates. In Germany, unemployment has declined steadily since 2005, with only a small temporary increase in 2009. In the UK, there was a steep initial increase in unemployment to almost 8 per cent and the rate remained high until 2013. However, unemployment has decreased substantially along with the robust employment growth in the past two years. Relative to these two rapid employment growth countries, Sweden's unemployment has declined only modestly since the increase in the midst of the crisis.

The employment rate has increased steadily in Germany, while it is only gradually rising to the pre-crisis level in Sweden and remains below that in the UK. The differences stem obviously from different population and labour force developments. Population growth has been very strong – and quite similar – in the UK and Sweden, while the working age population has been on the decline in Germany. Against this background, the recent rapid decline of unemployment in the UK is remarkable.

The unemployment and employment patterns are even more diverse among the three low-growth countries. The crisis led to a significant drop in employment and increase in unem-

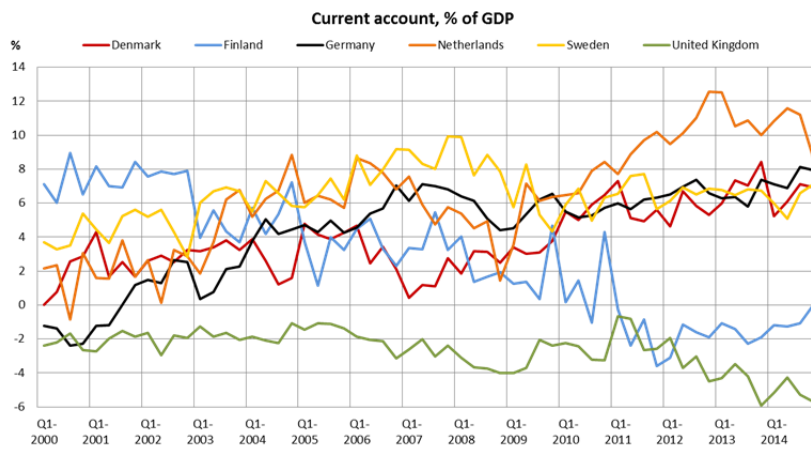


Figure 2 Evolution of the major demand components



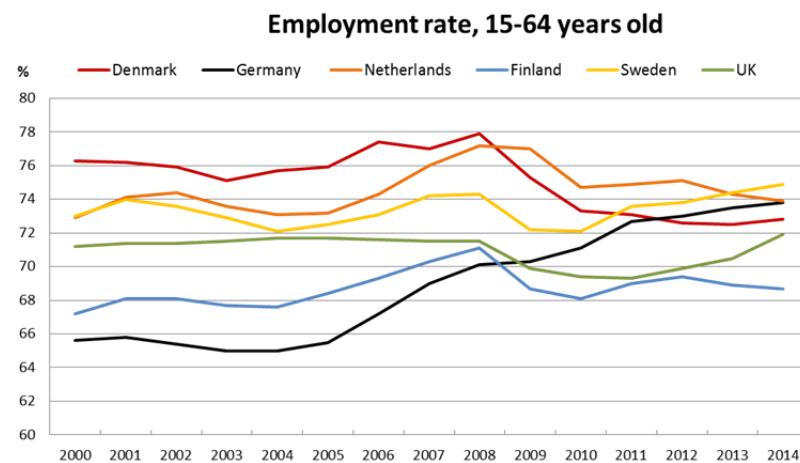
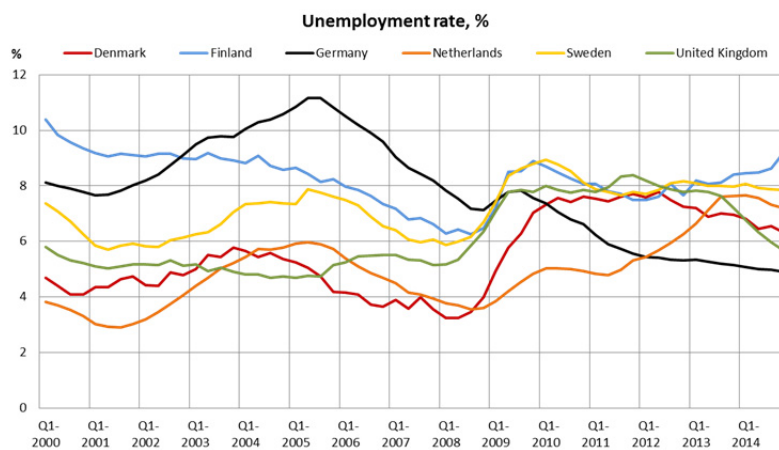
Source: Ameco.

Figure 3 Current account



Source: Ameco.

Figure 4 Unemployment and employment rates

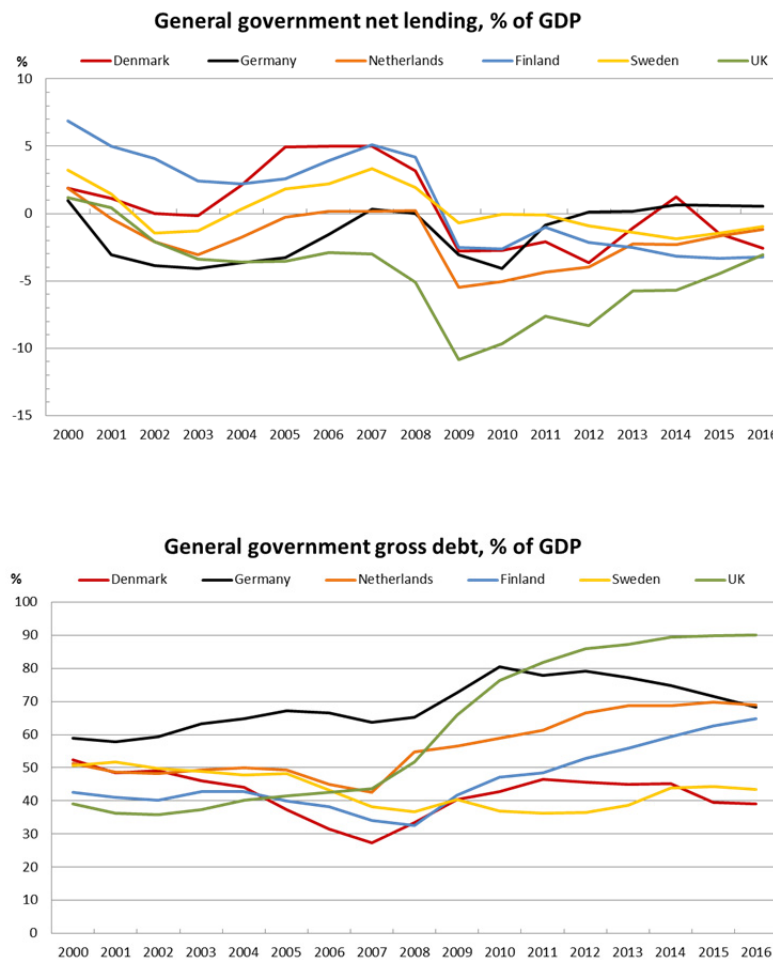


Source: Ameco.

ployment in Denmark. In the Netherlands unemployment increased substantially somewhat later in 2012 and 2013. In Finland, the increase since the crisis has been more modest. However, unlike in Denmark and the Netherlands, unemployment has remained high and most recently even increased somewhat in Finland. In terms of the employment rate, the Netherlands remains a high employment country, Denmark has become more like the other Northern European countries, and Finland displays the weakest performance.

Public finances weakened in all countries as a result of the crisis, and public debt has increased substantially. The general government position (net lending) weakened between 5.5 and 8 percentage points of GDP in 2009 in all other countries save Germany (1.4) and Sweden (2.9). Given the high deficit of the UK prior to the crisis, its deficit has remained the highest among these countries, even if the deficit has declined the most (by 5.7 pp) between 2009 and 2014. Also Germany (4.8 pp) Denmark (3.9 pp) and the Netherlands (3.3 pp) have seen the overall deficit come down.

**Figure 5** General government net lending and debt



Source: Ameco, 2015 and 2016 EU Commission forecasts.

In contrast, in Sweden and Finland the deficits have increased somewhat between 2009 and 2014. While the debt levels are higher in all countries than prior to the crisis, they have remained below 90 per cent of GDP in all of the countries, and are either declining (Germany as of 2013, Denmark as of 2015) or forecast to stabilise.<sup>1</sup>

### 3 Fiscal policy

Following the general fiscal approach throughout the developed world all six countries eased fiscal policy in 2009 and/or 2010 substantially.

Since the initial easing, the policy stances have evolved quite differently, as measured by the change of the cyclically adjusted net lending. In Sweden, the initial expansion was small but Sweden has continued to follow a modest expansionary policy throughout, with the change of the cyclically adjusted net lending averaging around -0.3 (OECD) and -0.5 (EU Commission) in 2011–2014.

Finland, on the other hand, had the strongest expansion in the early phase, with the average change of cyclically adjusted balance estimated at -1.6 and -2.2 by the EC and the OECD, respectively. The remaining four countries recorded an expansion with the fiscal impulse in the range 1 to 1.5 per cent a year in 2009 and 2010. In the recovery phase since 2011 Finland appears to have had a neutral or slightly contractionary stance when measured by the change in the cyclically adjusted net lending while the four remaining countries have had a clearly contractionary stance, as the average annual change in the cyclically adjusted balance has been typically close to 1 per cent of GDP.

Cumulatively from 2009 onwards Finland and Sweden have had an expansionary stance, and quite significantly so (-0.6 and -0.3 to -0.4 per cent a year, respectively), while in Denmark, the UK and the Netherlands, the cumulative stances have been more or less neutral, and in Germany somewhat contractionary.

Assessing the fiscal policy stance is notoriously difficult. Doing it on the basis of cyclically adjusted net lending or any other similar “top-down” indicator is problematic particularly in times when there is exceptional uncertainty about the level of potential output and thus about the part of the headline deficit that should be considered policy-driven. This shows up in the slightly different cyclically adjusted deficit estimates produced by the EU Commission and the OECD. The differences do not change the qualitative assessment, however. Furthermore, the EU Commission’s experiments with a partially “bottom-up” approach gives also the same qualitative result on the initial stance and broadly similar results for the recovery phase.<sup>2</sup>

<sup>1</sup> The Finnish debt to GDP ratio is forecast to grow under unchanged policies, but assuming that the expenditure cuts announced by the new government in its programme in May 2015 get implemented the ratio should stabilise at around 66–67 % of GDP in three years’ time.

<sup>2</sup> Carnot and de Castro (2015) calculate a measure called “the discretionary fiscal effort” or DFE, where the revenues measures are assessed “bottom-up”, i.e. by summing the assessed revenue implications of various tax and similar measures assuming unchanged behaviour. For all the countries considered, the indicator suggests an easing of policy in 2008–2010. For the period 2011–2013 the DFE indicator suggests easing in Sweden, substantial tightening in the UK and the Netherlands and moderate tightening in Finland, Denmark and Germany.

<b>Table 1    Fiscal impulses (average change in cyclically adjusted net lending, per cent of GDP, European Commission and OECD)</b>				
	<i>09 and 10</i>	<i>11 to 14</i>	<i>09 to 14</i>	
FIN	-1,6	-0,1	-0,6	ec
	-2,2	0,2	-0,6	oecd
SWE	-0,4	-0,5	-0,4	ec
	-0,3	-0,3	-0,3	oecd
DEN	-1,5	1,1	0,2	ec
	-1,2	0,3	-0,2	oecd
GER	-1,1	1,1	0,4	ec
	-1,0	0,9	0,2	oecd
NLD	-1,3	0,9	0,2	ec
	-1,6	1,0	0,1	oecd
UK	-1,1	0,6	0,1	ec
	-1,1	0,7	0,1	oecd

Source: Ameco, OECD.

## 4 Monetary conditions

Monetary policy reacted more or less in the same way in the Euro area, the UK and Sweden following the Lehman crisis in the autumn of 2008. Policy rates were slashed and short-term interest rates reacted accordingly. In 2011 monetary policy tightened in all countries somewhat, most of all in Sweden and the Euro area. In 2012 the short-term rates came down again in all countries, and the easing has continued since that in Sweden. With the policy rates close to zero, the monetary authorities have also resorted to various “non-standard” measures to ease monetary conditions, notably by buying large amounts of long-term debt instruments.

The evolution of the long-term rates has been rather similar in all countries except the UK. The rates have come down substantially since 2008 although with some oscillation. The UK long-term rates declined the most and much faster and display in fact a rather different time pattern. The 10-year UK bond rate declined by more than 5 percentage points in less than a year and has remained at a clearly lower level than in the other countries until early 2015. The difference was particularly pronounced in 2009 through 2011.

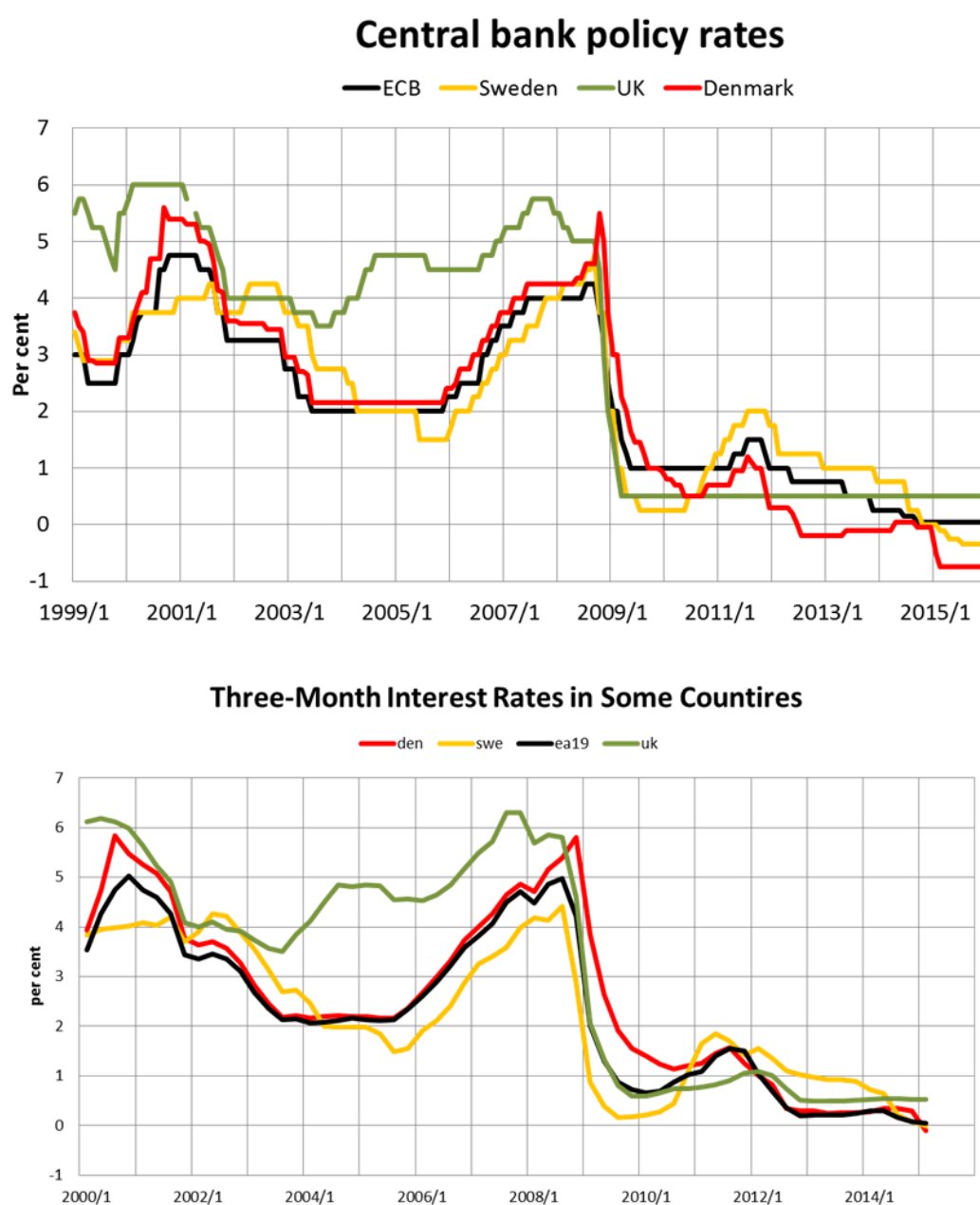
The UK comes out even more exceptional with regard to the effective exchange rate. While the Pound Sterling remained strong in the years prior to the crisis, its effective external value declined by a quarter in a short period of time coinciding with the decline of the interest rates, and it remained stable and weak until about 2013, strengthening somewhat after that.

Also the Swedish effective exchange rate displays a distinctive pattern. Like the Pound, also the Krona depreciated significantly in 2009. However, it started to strengthen quite rapid-

ly and was about 20 % higher in value in 2013 than four years earlier, only to depreciate after that again.

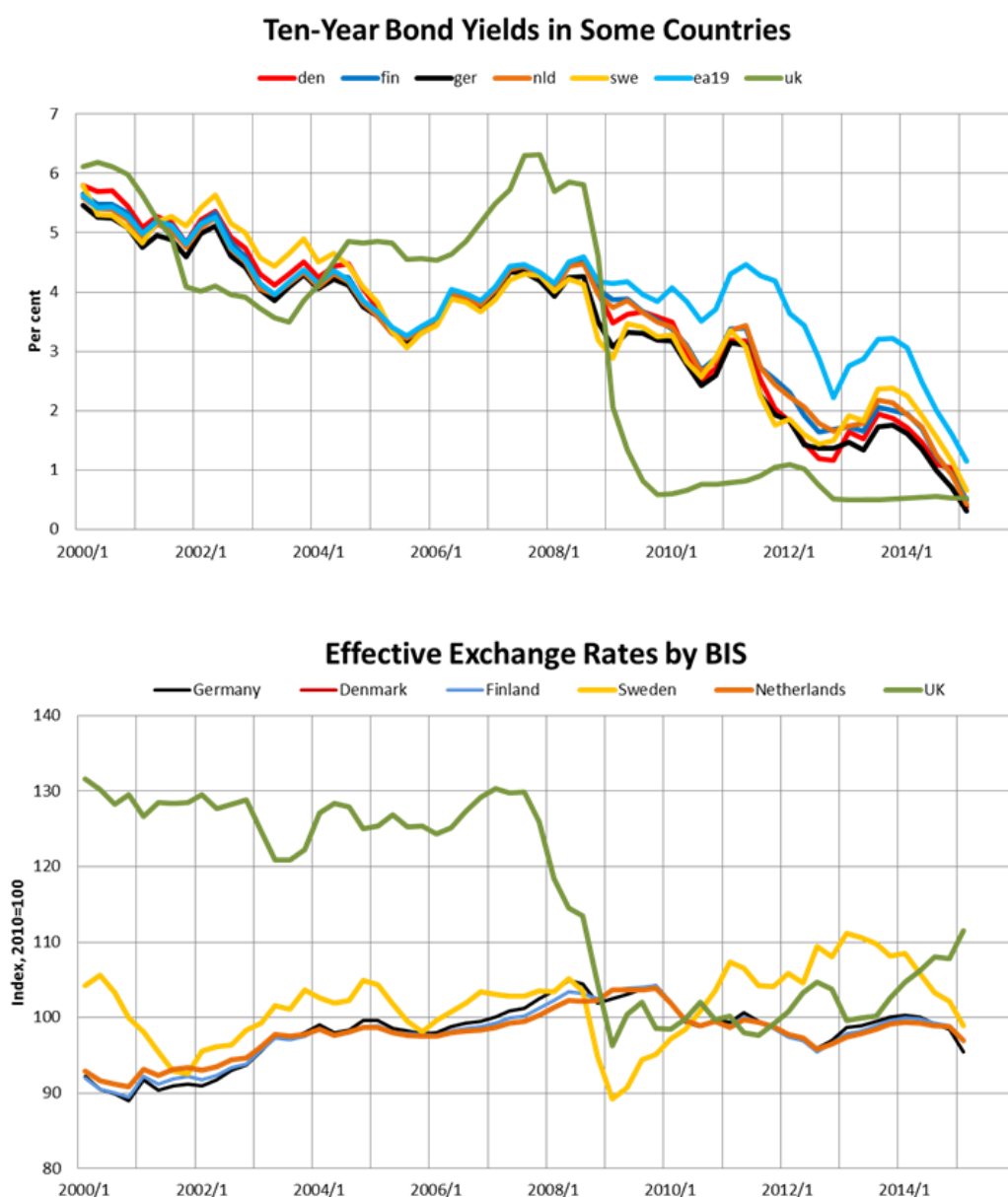
All the other countries experienced modest effective appreciation in the beginning of the crisis, but have depreciated somewhat since in a rather uniform way, as is understandable given the reasonably similar trade patterns.

Figure 6 Policy rates and short-term rates



Source: Danmarks Nationalbank, Bank of England, ETLA, European Central Bank, OECD, The Riksbank.

Figure 7 Long-term rates and the effective exchange rates



Source: BIS, OECD.

## 5 Macro policy conditions and growth

Can the observed differences in the macroeconomic performance, in particular GDP growth since 2008, be explained by differences in macroeconomic policies? A good answer to this question would require modelling macro policies and simulating counterfactual policies in consistent macro frameworks of all countries concerned. This is beyond the scope of our exercise.

Nevertheless, if macro policies are really important for the outcomes, there should be an association between various policy indicators and the outcomes that is visible in simple stylised facts. What we find suggests that while in part the growth differences are related to fiscal and monetary conditions, one cannot convincingly argue that either fiscal policies or monetary policy conditions would dominate in explaining why some of Northern European countries have done much better than others in terms of growth and job creation during the crisis.

## 5.1 Fiscal policy and growth

As noted, fiscal policy was eased in all six countries in 2009 and 2010. Finland eased the most and Sweden the least (only in 2010), while the easing was in the same ballpark for the remaining four countries. The fact that the GDP decline in 2009 was pretty much the same, with the exception that it was substantially steeper in Finland, does not provide strong evidence of the role of fiscal impulses for the relative growth performance in the very first phase of the crisis. What can be said is that, at least in the case of Finland, even strong fiscal easing was not sufficient to compensate for the exceptional negative demand shocks.

The early recovery in 2010 was also rather similar in all countries except that Sweden grew faster than the other countries. While this coincides with a fiscal stimulus in Sweden, the stimulus was no greater than in Finland in 2010 and given that the stimulus in 2009 was much weaker in Sweden, fiscal policy can hardly explain the fast Swedish recovery relative to other countries.

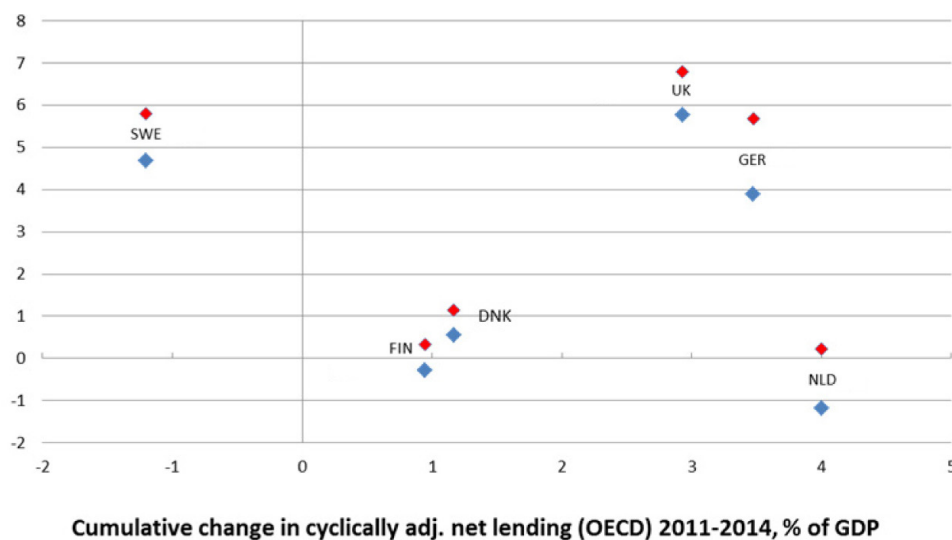
The really interesting period from the point of view of fiscal policy is from 2011 onwards. In this period, fiscal policy was clearly tightened in Germany, the Netherlands and the UK and according to the EC also in Denmark, while Sweden continued to ease and Finland (and Denmark according to the OECD) appears to have run a modestly contractionary policy. At the same time significant growth divergences emerged.

There is, however, no clear relationship between growth performance (whether measured by GDP or employment growth) and the fiscal stance, as measured by the change of cyclically adjusted budget balance (Figure 8). Among the three fast growing economies, only Sweden had an expansionary fiscal policy stance, while the UK and Germany clearly ran tight policies. Similarly the fiscal policy in Finland was much less stringent than in another low-growth country the Netherlands and also much easier than in the UK or Germany, which have grown much faster.

This lack of a cross-sectional relationship between the fiscal stance and growth performance is nevertheless not yet strong evidence that fiscal policy did not have a significant impact on growth in individual countries. For example, in the country of our greatest interest, Finland, the initial recovery stopped in early 2012 and the GDP has been on a slightly declining trend ever since. This could be an indication that the change from large-scale stimulus to moderate consolidation was the primary cause of the termination of the recovery.

The composition of demand changes and their precise timing does not, however, lend support to this claim. First, private consumption and public consumption and investment, which are most likely to respond to fiscal policy, have contributed positively to growth in 2011–2014, by

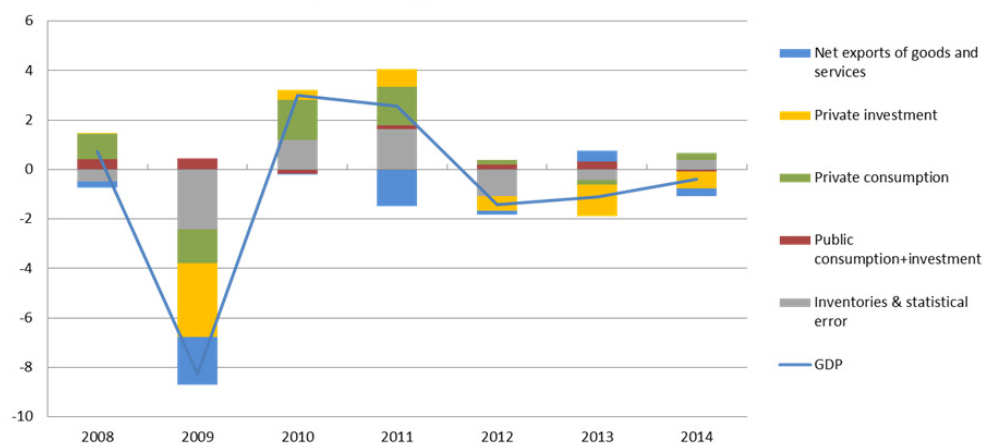


**Figure 8** Fiscal policy and GDP and employment growth in 2011–2014**GDP (red) and employment (blue) growth 2011–2014, %**

Source: OECD, Ameco, ETLA's calculations.

1.7 and 0.6 percentage points, respectively (Figure 9). The negative GDP outcome stems from net exports (-1.4 pp) and private investment (-1.8 pp).

Second, the GDP pattern over time is not consistent with the argument that fiscal policy was the key driver of growth in Finland. In Figure 10 we have depicted GDP and employment growth and three different indicators of fiscal stance: apart from the OECD estimate of cyclically adjusted net lending (as in Figure 8), a similar EU Commission estimate and also a par-

**Figure 9** Contributions of demand components to growth in Finland

Source: Statistics Finland, ETLA's calculations.

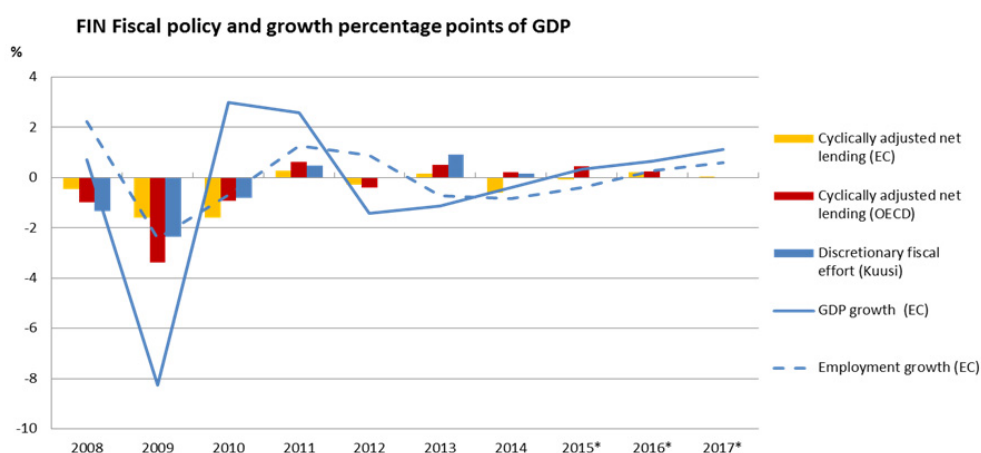
tially bottom-up measure constructed by Kuusi (2015)<sup>3</sup>. The last measure suggests there was a slightly tighter fiscal stance than according to the EC indicator in particular, but qualitatively the picture is not different.

While fiscal easing is associated with GDP growth in 2010, growth continued at the same pace in 2011 despite a tightening of fiscal policy. Similarly, the new relapse of growth in 2012 is associated with fiscal policy turning neutral or slightly expansionary, and a clearer tightening in 2013 does not lead to further weakening of growth. This inconsistency of the fiscal explanation of the growth pattern is evident also when one looks at the contribution of private consumption to growth on an annual basis (Figure 9). Despite the tightening of fiscal policy in 2011, private consumption grew strongly and in 2013 the tightening was associated with unchanged consumption.

The timing of fiscal policy actions and growth performance gives a mixed picture of the importance of fiscal policy also in the other five Northern European countries. In Sweden, GDP growth varied a great deal while fiscal policy remained similarly accommodative all the time. In Denmark, substantial fiscal tightening in 2013 was not associated with any weakening of growth. In Germany growth slowed down between 2011 and 2013 at the same time as fiscal consolidation was easing. On the other hand, there are also instances when the change in fiscal policy coincides with the presumed short-term impact on growth. In particular, the tightening of fiscal policy in the Netherlands in 2012 and 2013 is clearly associated with weaker growth of production and employment (see the Figures in the Appendix).

These simple comparisons of the fiscal policy stance and growth performance assume implicitly that a given change in the cyclically adjusted budget balance has the same impact in all countries concerned. For many reasons this may not be true, starting from the composition of

**Figure 10 Fiscal policy and growth in Finland over time**



Sources: EU Commission autumn forecast 2015, OECD spring forecast 2015, and Kuusi (2015).

<sup>3</sup> Kuusi's indicator is in spirit similar to that of Carnot and de Castro (2015) in that the revenue side is estimated "bottom-up" by summing up changes in tax intakes based on changes in the tax parameters and assuming unchanged behaviour. The expenditure side is top-down.

policy measures. In the current context two factors have received particular attention. First, fiscal policy is likely to have stronger effects when interest rates do not respond and, second, fiscal policy is also likely to have stronger effects when financial intermediation is hampered by low collateral values or banking problems or both leading to more severe liquidity constraints than in normal circumstances.

The variation in interest rate responses to fiscal policy changes cannot be deemed important. Sovereign risk premiums have been small in all countries concerned and have hardly been affected by the fiscal stance. Similarly, fiscal policies in three small countries, the Netherlands, Finland and Denmark cannot affect ECB's monetary policy in any way, and the impact of German fiscal policy on the ECB has very likely been small, too. Of course, in the UK and Sweden fiscal policy could in principle have affected the interest rate level more, but even there the impact probably has been small given the closeness to the zero bound.

Financial intermediation may have been disturbed to different degrees in the six countries concerned. Banking problems have been relatively greater in Denmark, the Netherlands and the UK, and housing prices have declined significantly in the first two of these. However, these differences are unlikely to be very important for fiscal policy. The UK and Germany, on the one hand, and Denmark and Finland, on the other hand, constitute two pairs of countries each with roughly the same country size, same fiscal stance and roughly the same growth outcomes in 2011–2014 but presumably different degrees of financial intermediation troubles within the pair.

## 5.2 Monetary conditions and growth

Monetary conditions obviously have been very similar in all the three Euro area countries Germany, Finland and the Netherlands and also in Denmark, which has effectively tied itself to the ECB policy. As noted, short-term and long-term interest rates have behaved in a broadly similar manner, as have the effective exchange rates.

There is, however, some variation in the rates businesses have paid for their borrowings from banks. It seems that until recently the Danish business sector has faced higher borrowing costs and the Finnish business sector lower costs than the Dutch or German borrowers. An explanation for the relatively high Danish rates could be the distress experienced in the Danish banking system (including some bank failures), when the credit and housing price boom came to an abrupt end. Similarly, the very low Finnish corporate rates could reflect the strength of the Finnish banking system, which was strongly capitalised and had followed a prudent lending strategy after the financial crisis of the early 1990s.

The very low level of investment in Denmark since 2009 could thus in part have been caused by a “financial accelerator” that turned into reverse due to the troubles in the banking sector and declining collateral values. The experiences of the other Nordics, which had had major financial crises in the early 1990s, suggests that balance sheet adjustments by the highly indebted corporates and households can have very powerful effects on consumption and investment.

For Finland, interest rates and weak credit availability can hardly have been constraining factors of growth relative to the other countries. Not only have the policy rates and short-term and long-term government bond rates been low but so have also the rates on bank credit to

corporations. Furthermore, to the extent there is survey data on the availability of bank credit to SMEs, it suggests that the availability has been among the best in Finland (ECB, 2014).

An obvious conclusion is that monetary conditions as such cannot explain the observed differences among the four countries, i.e. why Germany has done so much better than Finland, Denmark and the Netherlands.

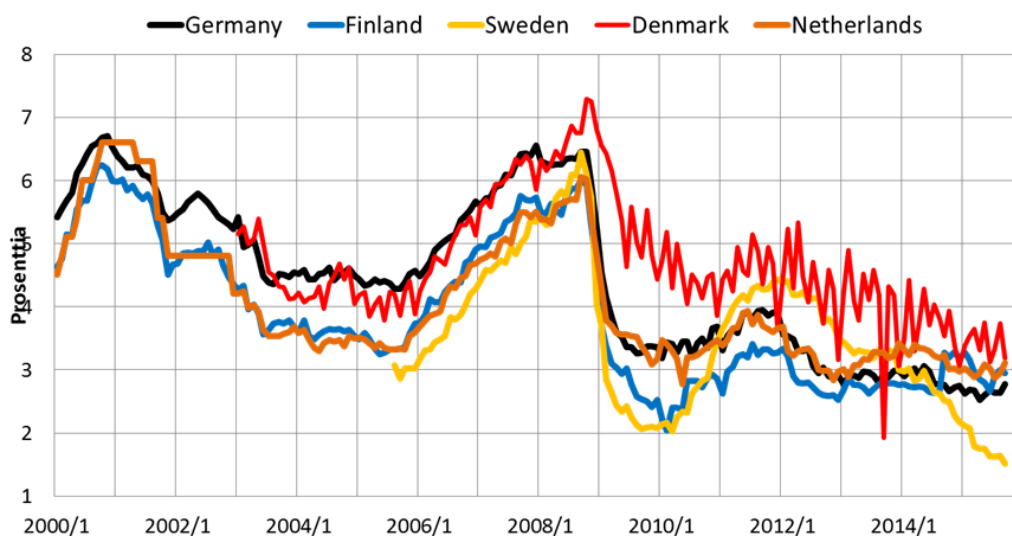
A comparison of the UK and Sweden to the Euro area countries and Denmark is of particular interest. Monetary conditions have been very accommodative in the UK on the basis of the long-term rate and the effective exchange rate. This is true in 2009 to 2011 in particular. However, GDP growth was not very different from Germany or Finland in this period although it was marginally better than in the Netherlands and Denmark. Similarly, employment growth was broadly the same in all these countries except Denmark in this early period of recovery. Furthermore, the arguably most interest-sensitive demand component, investment, did no better than in other countries, and British exports did not seem to grow faster than in other countries despite the exceptional depreciation of the Pound.

The UK – together with Sweden and Germany – started to pull away from the rest more clearly from 2012 onwards, both with regard to GDP and employment. Nevertheless, the discrepancy in monetary conditions becomes smaller then. The short-term interest rates even exceeded those in the Euro area countries and Denmark, the difference of the long-term rates halved and the Pound appreciated.

Thus different monetary conditions alone cannot explain UK's relatively favourable growth performance among the six countries. The very strong employment growth and decline of the unemployment rate suggest rather that a well-functioning labour market has been a key driver of the UK recovery.

**Figure 11 Interest rates on corporate loans**

Interest rates on new loans to non-financial corporations (up to 1 year of maturity)



Source: ECB's Statistical Data Warehouse.

In the case of Sweden, the strong monetary policy easing in 2009 and the decline of short-term and long-term rates and the depreciation of the Krona are well in line with the rapid recovery of GDP, employment and in fact all the main demand components until 2011.

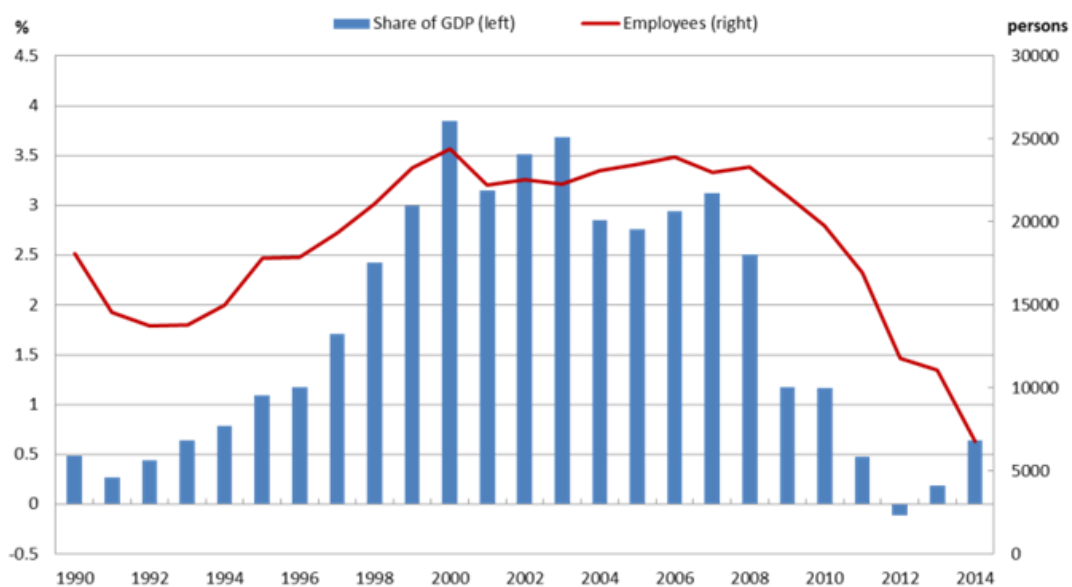
Also the developments since 2011 are consistent with what has happened on the monetary front. Swedish GDP growth was on average rather flat in 2012–2014, dragged down by stagnating exports with imports growing faster than exports, while private consumption and employment continued to increase steadily. The evolution of the interest-sensitive investment demand is in line with the tightening of monetary policy from late 2010 onwards, as is the negative average contribution of the net exports with the appreciation of the Krona. The steady growth of consumption and employment can be explained by the combination of moderate fiscal expansion and the positive impact of the appreciation of the Krona on purchasing power.

## 6 Finnish specifics

The observation that fiscal policy or monetary conditions per se cannot explain why Finland has done so much worse than its peers leads naturally to the question about the shocks the economy has faced and the economy's resilience relative to these shocks. Given that three of the peer countries (Sweden, Germany and the UK) surpassed the pre-crisis GDP in 2014 and that the Netherlands reached that level and Denmark was just slightly below it, the 2014 gap relative to the 2008 level – ranging from 6 to 7 per cent depending on the precise measure – would seem a reasonable metric of the specific Finnish underperformance.

As noted in the introduction, the decline of Nokia is an obvious candidate for the troubles of Finland. And indeed its direct contribution accounts for 1/3 of the GDP decline and its shedding of employment for 1/5 of the reduction of total employment between 2008 and 2014 (Figure 12).

**Figure 12** Nokia's share of GDP and employment in Finland

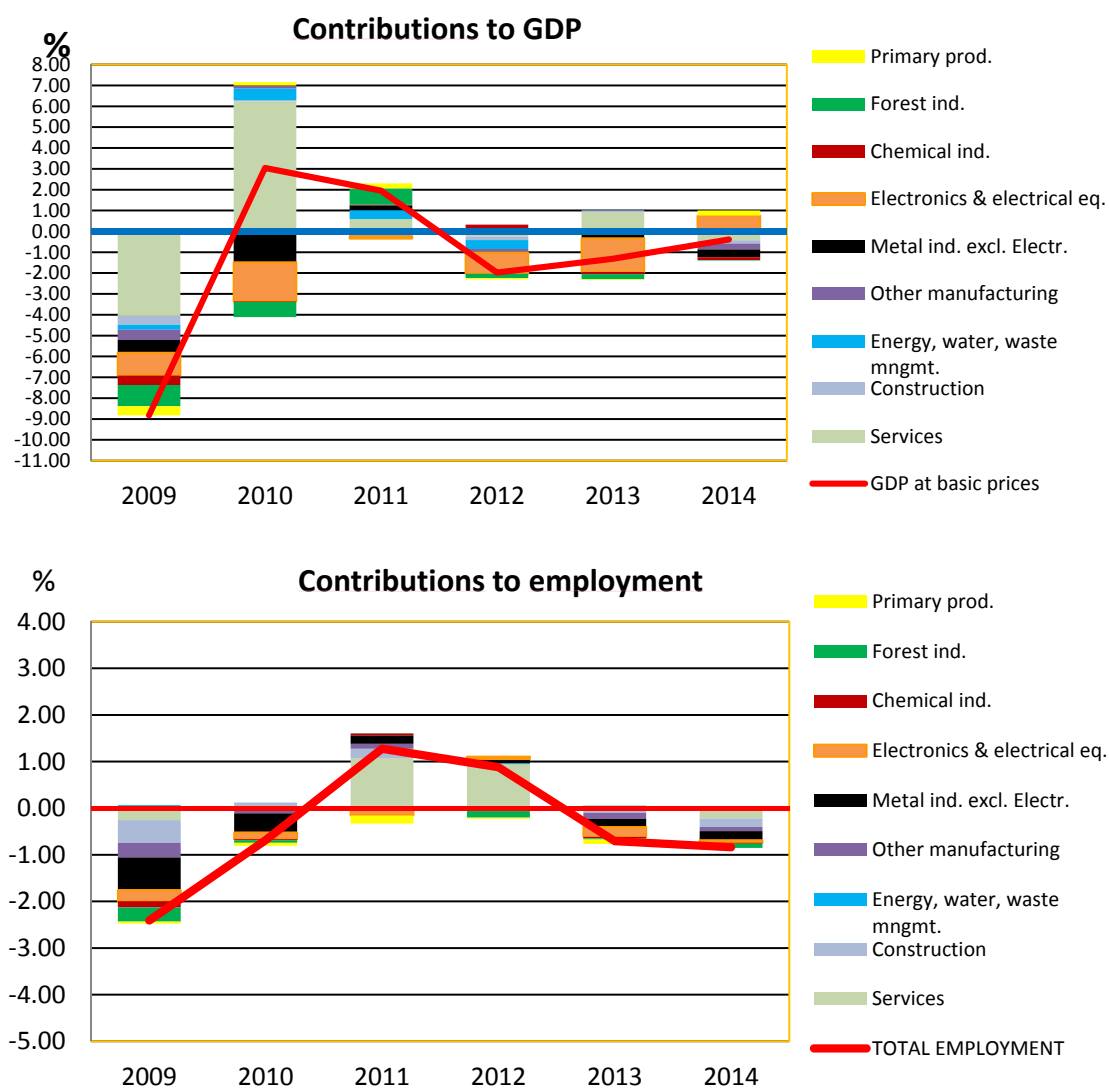


Source: Statistics Finland, ETLA's calculations.

Furthermore, the troubles in the high tech production were not confined to Nokia alone. The ICT sector as a whole accounts for over 60 % of the GDP decline and some 45 % of the reduction of output of all declining branches. It also accounts for almost 30 % of the employment decline between 2008 and 2014. Still, production has declined much more broadly. The contribution to GDP of the technology industry outside the ICT sector was over 2 percentage points and that of the forest industry 1.4 percentage points. With regard to employment, the most important negative contribution comes from the technology industry outside the ICT sector, accounting for almost half of the total employment loss (Figure 13).

Nokia's loss of production and at least to some extent its effects on the ICT sector as a whole can be considered an idiosyncratic, asymmetric shock to the Finnish economy, given the extraordinary importance of the company and the sector for the Finnish economy. In a similar

**Figure 13 Contributions of branches to GDP and employment change**



Source: Statistics Finland, ETLA's calculations.

vein, the reduction of demand for print paper due to the substitution of print media by internet services can be considered an asymmetric shock. Also the recent weakness of the Russian economy due to the decline of oil price and the sanctions has hit the Finnish economy disproportionately, although the impact was not large yet in 2014.<sup>4</sup> Thus perhaps as much as  $\frac{3}{4}$  of the gap of the 2014 production vis-à-vis the pre-crisis production could be explained by asymmetric shocks. However, these shocks were spread over six years with the bulk of them materialising in the first two years. One might imagine that a flexible, resilient economy could have created a considerable amount of new production in this time frame.

This raises the question about Finland's competitiveness. As noted, Finland has fared very well in many comparisons of competitiveness, which focus on aspects that arguably are important for economic growth in the long term. However, indicators of cost competitiveness and profitability of production in Finland point to a weakening competitiveness systematically from the beginning on the last decade through the first years of the crisis. The weakening was particularly strong in 2008 and 2009 (Figure 14). The degree of the decline of cost competitiveness is difficult to ascertain. The outcome depends on the precise measure used, whether one focuses on manufacturing or the business sector as a whole, which country groups Finland is compared with and the time horizon. Compared to the average in the period between the mid-1990s and 2007 most indicators suggest a 10 to 15 per cent decline.<sup>5</sup>

It is rather obvious that the weakening cost competitiveness was not the cause of the steep decline of ICT production or paper production, as the domestic labour costs are not very important in these lines of business, and there are other plausible explanations for these setbacks. Furthermore, part of the registered decline of the relative nominal and real unit labour costs stems from the reduction of high productivity products in the total value added, not having any impact on the rest of production.<sup>6</sup>

Nevertheless, cost competitiveness has probably been much more important for other industries such as the technology industry outside ICT. Their capacity to sustain production and employment and to expand to make use of the in general highly-skilled labour resources freed from declining lines of production is likely to depend significantly on the relative cost level.

When Finland recovered from the depression of the early 1990s, the recovery was led by a strong contribution from exports. The export volume of goods and services grew in the 6 years' time from the trough by some 60 %. Net exports (first mainly due to declining imports) were a key contributor to growth in the first three years followed by strong positive contributions from fixed investment. Looked at from the supply side, all the main manufacturing branches contributed to GDP growth and as a whole much more so than the rapidly expanding ICT-sector.

It is plausible that this broad expansion of manufacturing production benefitted greatly from the significant improvement of cost competitiveness that took place thanks to the effective de-

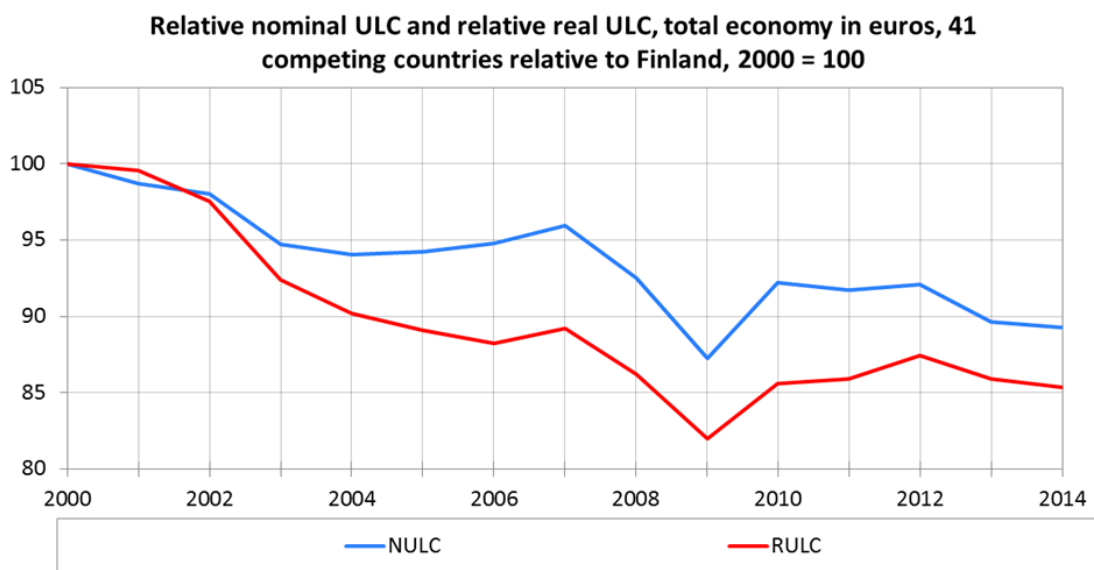
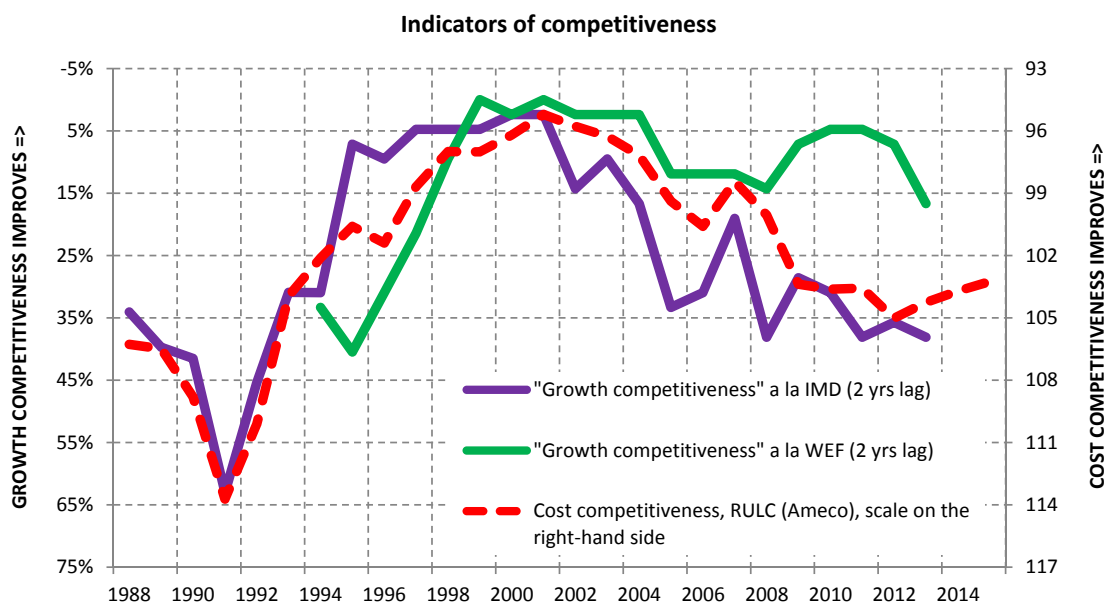
<sup>4</sup> The value of Finnish exports to Russia declined by 13 per cent in 2014 and by about the third in 2015 in value terms. The net effect of Russian sanctions and oil prices on the Finnish GDP is, however, about zero in the first year, turning later positive due to the impact of the Western export markets (Suni 2015).

<sup>5</sup> See Maliranta and Vihriälä (2014), Kajanoja (2015).

<sup>6</sup> According to Maliranta (2014), about half of the increase in relative real unit labour costs in the Finnish business sector from the early 2000 until 2012 stemmed from higher relative growth of hourly wages and the rest from weaker relative productivity and product price development.



Figure 14 Measures of Finland's competitiveness



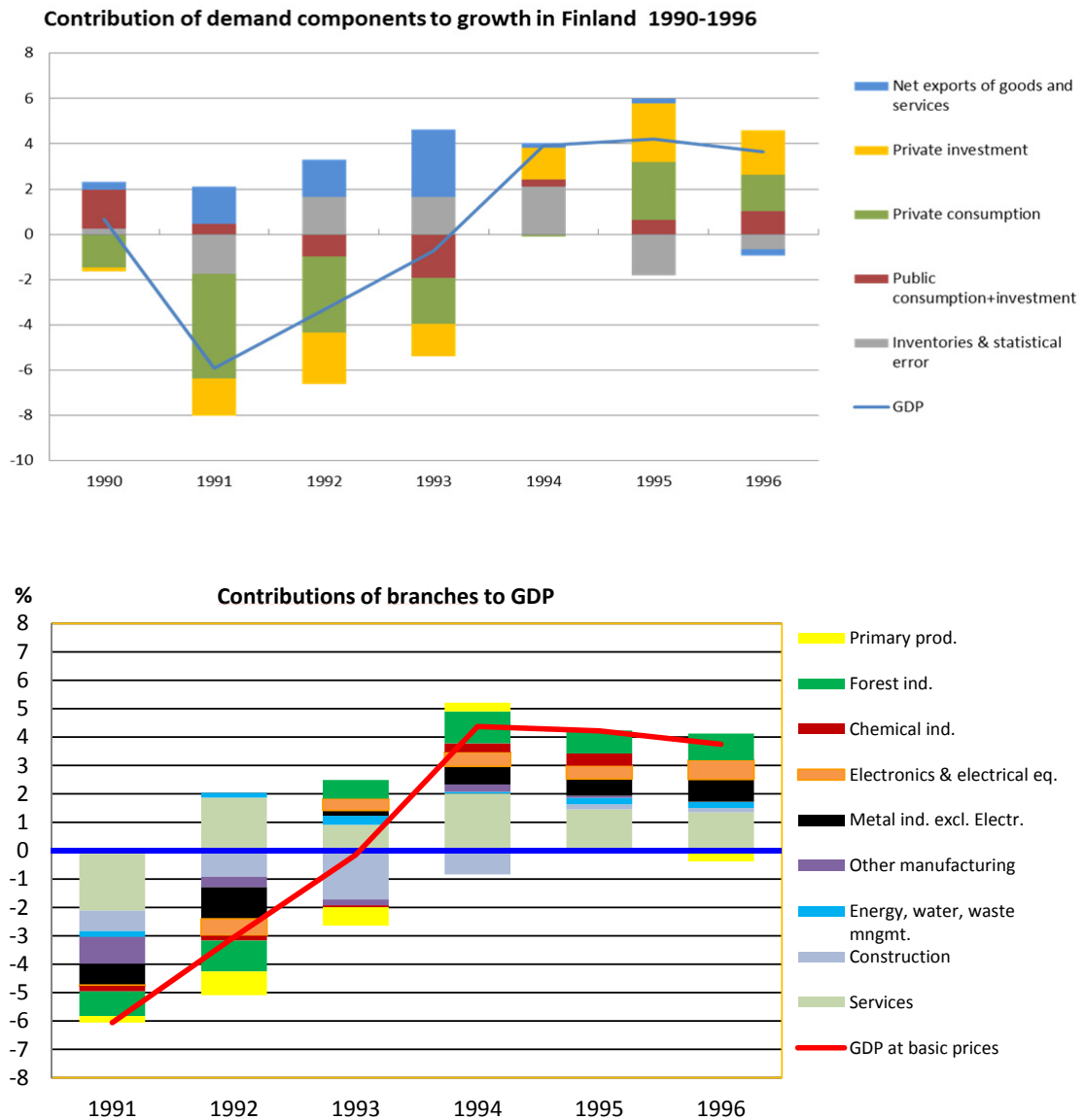
Sources: WEF, IMD, Ameco, Statistics Finland, ETLA's calculations.

preciation of the Finnish currency by some 30 per cent. In the current crisis, when the cost competitiveness has weakened rather than improved, the manufacturing branches outside the ICT and paper industries have not expanded at all even after the original shock was over.

Looking at the evolution of unit labour costs and how that decomposes into the effects of wage formation, productivity and the exchange rate shows that the absence of the exchange rate flexibility has not been compensated by additional wage flexibility. In particular, contract wag-



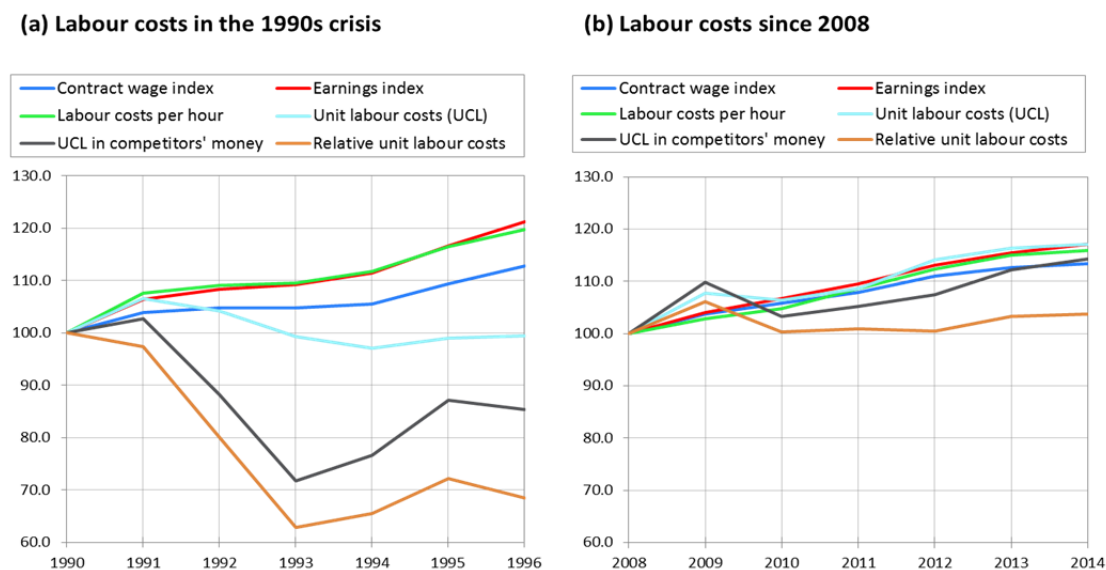
Figure 15 Contributions to growth in the early 1990s



es have increased by almost at an identical pace since the current crisis started as they did in a similar time span in the 1990s crisis (Figure 16). The absence of the exchange rate flexibility has thus been associated with unresponsive cost competitiveness.

How important has the observed lack of labour cost flexibility been for economic outcomes? The answer obviously depends on what the counterfactual labour cost pattern might have looked like and how strongly export, output, employment and other macro variables would have reacted to this alternative pattern. Nominal wages have declined quite rarely in developed economies. According to Eurostat, in the current crisis, nominal wages declined on average in only a handful of hard-hit countries (Greece, Lithuania, Portugal, Croatia, Estonia, Latvia and

Figure 16 Unit labour costs and their components in the two Finnish crises



Source: Statistics Finland, Ameco, ETLA's calculations.

Ireland). Given that the unemployment rate increased by only a few percentage points in Finland, a possible alternative wage scenario might have been a freeze of contract wages since the beginning of the crisis. Assuming that 2009 is the earliest year when wages could have been frozen, the cumulative contract wage reduction in the counterfactual case would have been 10 % by 2014.

The effects of such a wage reduction realised gradually over five years (approximately 5 % lower labour costs on average) appear to be noticeable but not overwhelming. A simulation with a rather standard Keynesian macroeconomic model of the Finnish Economy suggests that exports would have been close to 3 %, GDP 1 % higher and employment some 35 000 or close to 1.5 % higher in 2015 than in the baseline.<sup>7</sup> Thus even a wage freeze for several years could not have eliminated the impacts of the shocks Finland has experienced over the past years although the employment situation would have been significantly better (1/3 of the net job loss would have been eliminated according to the simulation). Much stronger wage flexibility would have been needed to come close to the pre-crisis export and GDP levels by 2015, assuming that the estimated relationships would hold in the presence of large unexpected wage cuts.<sup>8</sup>

Given the challenges in improving the competitiveness through nominal wage adjustment, an obvious question is how much difference would exchange rate flexibility, i.e. having stayed out of the EMU, have made? This is a tough question. The best way to answer it would be to simulate how the Finnish economy would have behaved outside the monetary union. Constructing

<sup>7</sup> The simulation was done at ETLA by Markku Lehmus with an extension of the EMMA model, see Lehmus (2009).

<sup>8</sup> While the reaction of exports to an improvement of cost competitiveness following a large nominal wage cut might reflect pretty well the estimated 0.6 long-run elasticity of exports to wage changes, the negative impact on private consumption of a massive unexpected wage cut might be significantly larger than implied by the estimated parameters. Thus the GDP and employment impacts might be less benign.

such a counterfactual is, however, difficult. Modelling an alternative monetary policy regime is not straightforward, and in particular, the determination of the effective exchange rate is far from a simple task. Nevertheless, some insights to that question may be gained by analysing Sweden's potential behaviour in the EMU. This is what we do next.

## **7 The role of the Euro: what does the Swedish experience suggest?**

The Finland-Sweden comparison is very interesting, as the production structures and trade patterns are rather similar, while Finland has been a member of the EMU from the outset and Sweden has remained outside. The countries also have relatively similar monetary policy histories prior to the decision of Finland to join the EMU. Both countries typically had faster rates of inflation than the competitor countries on average and resorted often to devaluations to restore competitiveness. Both countries were also forced to abandon their respective pegs to baskets of currencies in the midst of the financial crises of the early 1990s and both adopted an inflation target as an anchor for their monetary policies in the floating regime.

While modelling Finland outside the EMU would be complicated, it is relatively straightforward to model Sweden as having been part of the EMU. Sweden is small enough that one can relatively safely assume that the monetary policy of the ECB or the euro exchange rates relative to major currencies would have not been materially different if a country had been a member of the currency bloc.

We simulate the behaviour of the Swedish economy based on the assumption that it had been part of the Euro zone since its beginning. We do that with the help of the widely-used NiGEM model.<sup>9</sup> Sweden's membership in EMU means the adaptation of the monetary and exchange rate policies of the ECB. As a consequence, the Swedish central bank rate was fixed at the same level as the ECB steering rate and Euro exchange rate at the value prevailing in the beginning of 1999 (about 9.5 Kroner per one Euro).

Money market rates were equalised with those of the rest of the Euro area. The long-term rates are determined as forward convolution of the short-term rates. Swedish long-term rates had already stayed close to the German ones implying no potential for reduced risk premiums. As the foreign exchange rates in the NiGEM are USD rates, we calculated the respective counterfactual USD rate of the Krona by using the actual Krona exchange rate vis-à-vis the USD and the fixing of the Euro rate. While the bilateral exchange rates are the same for all the Euro countries, the effective exchange rates deviate to the extent of the variation of trade patterns.

The simulation period was from the first quarter of 1999 to the fourth quarter of 2014. We report mainly the results of the variant where economic agents were assumed to be backward-looking. However, we run the model also with forward looking expectations to check the robustness of the results. Forward-looking expectations, in general, smooth the evolution of the economy as e.g. long-term interest rates change less. Qualitatively the results are nevertheless rather similar.

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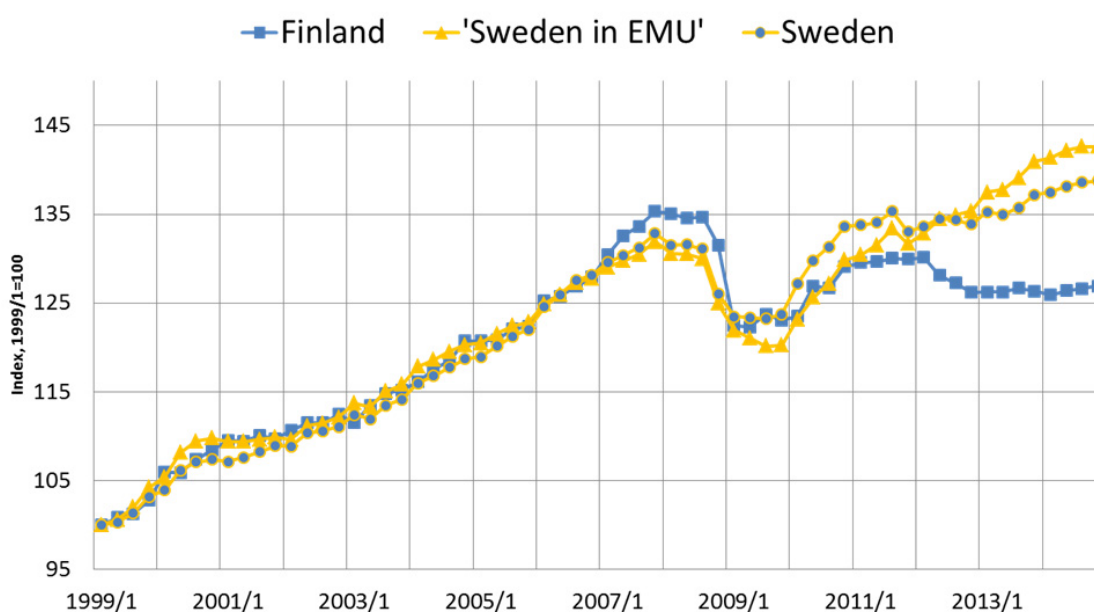
<sup>9</sup> The analysis is essentially an update of the simulation exercise in Suni and Vihriälä (2014), in which we focused on the similarities and differences of the macro outcomes between Sweden and Finland since the beginning of the EMU.

The counterfactual suggests that tying the Swedish monetary policy to that of the Euro zone would have allowed Sweden to grow faster in the first years of the EMU. By 2006 the counterfactual GDP would have returned to the factual level and in 2007 through 2012 the EMU-Sweden would have had a GDP quite significantly below the actual level. At the peak in 2009 the difference would have been 3 per cent. After that the EMU Sweden would have again had higher a GDP than the actual one (Figure 17).

Retaining the Krona appears to have mitigated the impact of the global shock in winter 2008–2009 and allowed Sweden to recover faster in 2010 and 2011 than it would have done in the EMU. The simulation thus lends some support to the claim that an economy like Sweden has benefited from an independent monetary regime in the midst of the Great Recession. The price of staying outside of the EMU is slower growth before and after the recession years. According to our results, over the whole 16-year period Sweden's GDP growth would have been higher within the EMU, by 0.3 and 0.2 per cent in the simulations with backward and forward expectations, respectively. Inflation would have been the same on average under the EMU scenario as with an independent monetary policy. As with GDP, inflation would have been stronger in the early years and lower in the midst of the global crisis if Sweden had been part of the EMU.

The simulated effective exchange rate is stronger than the actual one for almost the whole period. A particularly wide gap emerges in the first quarter of 2009 and remains there until mid-2010. The only significant periods of a weaker simulated exchange rate are in 1999–2000 and in late mid-2012 to 2013. On the other hand, the counterfactual interest rates have been in several periods both below and above the actual Swedish rates with a difference typically less than 1 percentage (Figure 18).

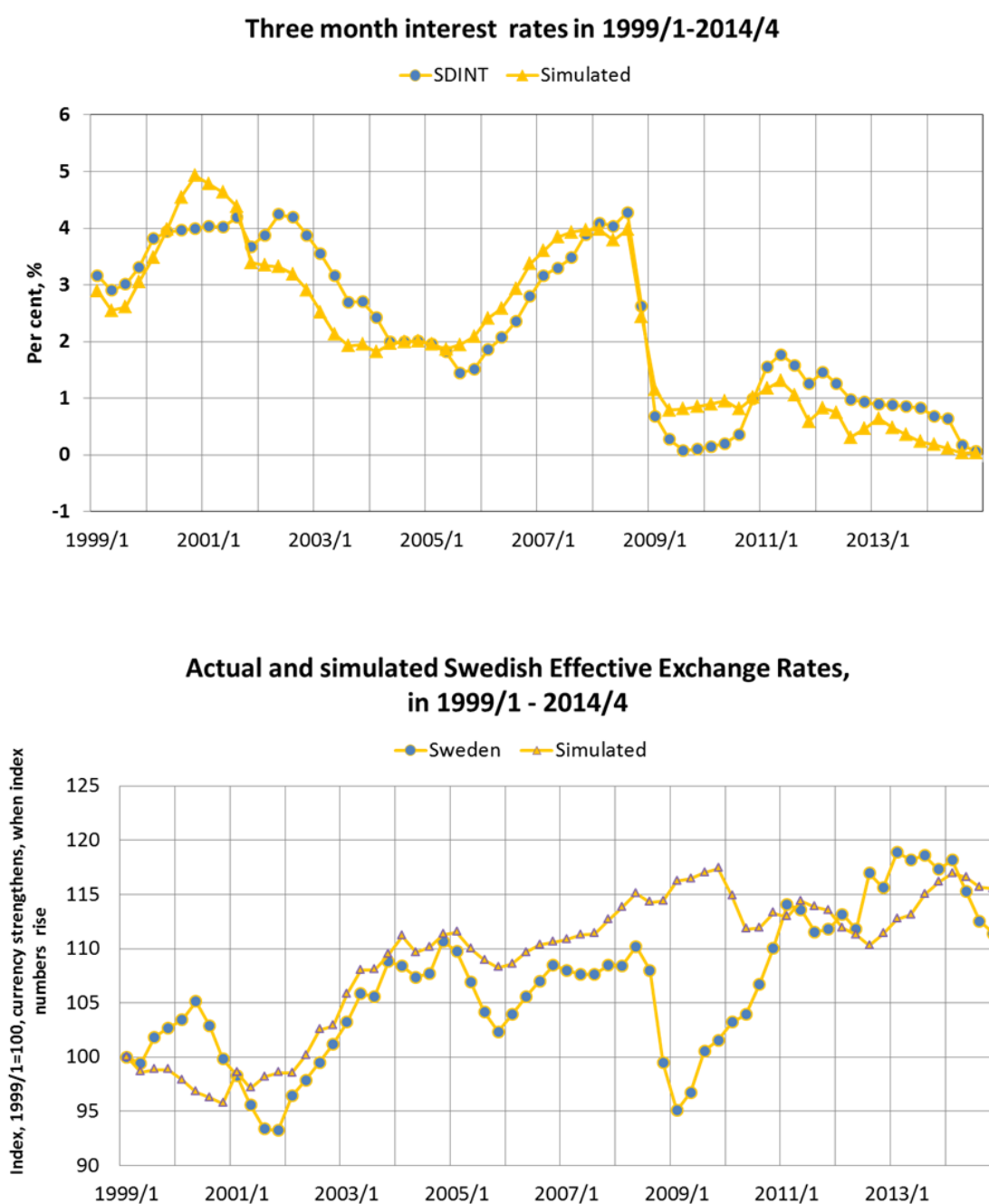
**Figure 17** Actual and simulated GDP in Sweden and the actual GDP in Finland



Source: NiGEM database, ETLA's calculations.

These interest rate and exchange rate patterns suggest that the stronger simulated growth until 2005/2006 is due to lower EMU interest rates. From 2006 onwards until 2011 both higher interest rates and a stronger currency contributed to the weaker growth in the counterfactual. The faster counterfactual growth in 2012 and 2013 is again associated with both lower interest rates and a weaker effective exchange rate.

Figure 18 Actual and simulated interest rate and effective exchange rate



Source: NiGEM database, ETLA's calculations.

The observation that the exchange rate has played a significant role is important as the monetary authorities probably have less influence on the exchange rate than on the interest rates. It is quite plausible that the weakness of the Krona from late 2008 until 2009 reflected mainly the market reactions to bad news on the Swedish economy, such as the state of the car industry and Swedish banks' exposures to the Baltic economies.<sup>10</sup> The evolution of the Krona helped to stabilise the economy on this particular occasion, but it is not obvious that expectations would always work in this way.

What might be the implications of these findings for Finland? The first observation is that in the benign conditions since the beginning of the EMU until 2007 the exchange rate regime probably did not make a huge difference: the factual and counterfactual GDP paths did not deviate drastically from one another for Sweden and resembled very much that of Finland. Other factors than the monetary regime seems to have determined the broad contours of the GDP growth in this period. If anything, having been outside the EMU might have resulted in somewhat slower GDP growth for Finland due to a stronger effective exchange rate.

On the other hand, given that the Swedish exchange rate reacted strongly in the midst of the crisis and the original export shock was much bigger in Finland in 2009 and Finland's export performance and growth as a whole have remained weaker than in Sweden ever since, one could assume that the Finnish effective exchange rate would have weakened significantly outside the EMU in 2009 and probably remained weaker than the actual effective rate. It would seem equally plausible that the intervention rates would have been lower in Finland outside the EMU than the actual ones at least until 2014 when the ECB rates were lowered close to zero.

Assuming this kind of exchange rate and interest rate reactions in Finland, the simulations suggest that the recovery most likely would have been stronger than has been the case. How much stronger, is nevertheless, difficult to assess. The degree of the effective depreciation might have been bigger given the more difficult situation in Finland. On the other hand, the impact of a given depreciation on GDP might have been somewhat weaker, as Finland is a slightly less open economy than Sweden. In any case, the fact that Finland's GDP was lagging much more behind Sweden in 2014 than the difference between the simulated and actual Swedish GDP at any point in time suggests that monetary autonomy could not have eliminated Finland's performance gap vis-à-vis Sweden in full.

## 8 Concluding remarks

The growth performances of Northern EU countries have deviated from one another since the Great Depression started in 2009. Some of these deviations are linked to macro policies pursued by the respective governments and monetary authorities. However, one cannot convincingly argue that either differences in fiscal policies or monetary policies would dominate in explaining why some of the Northern European countries have done much better than others in terms of growth and job creation.

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<sup>10</sup> The Riksbank itself argued at the time that the weakening reflected the general tendency of small currencies to weaken in times of financial turbulence, and denied any attempts to target any given level of the exchange rate (The Riksbank 2009).

This does not, obviously, imply that fiscal or monetary policy would not have affected growth in these countries individually or as a whole. But it suggests that other factors, relating to the initial situation, shocks experienced by these countries and the degree of their resilience, would have been more important in explaining the relative performances. For example, rapid credit expansion and a housing market boom in the UK, Denmark and the Netherlands made these countries more vulnerable to the global financial crisis than Germany. On the other hand, well-functioning labour markets have allowed the UK to recover quite well even if it has run a quite tight fiscal policy for years. Similarly, labour market flexibility probably helped Germany, Sweden and Denmark weather the storm better than many other countries in Europe.

Among the six countries analysed, Finland is of particular interest, as it has had the worst macroeconomic performance by far over this time period even if it has been considered one of the most competitive economies of the world. Our analysis suggests that the primary cause of the Finnish troubles has been a series of large negative asymmetric demand shocks. Expansionary fiscal policy in the early years of the crisis mitigated the effects on domestic demand and employment. In response to the rapidly increasing public debt, fiscal policy turned neutral or slightly contractionary since 2011 and that has contributed to weaker domestic demand in recent years. Nevertheless, this does not seem to be the most important factor in explaining the lack of a recovery. It is more likely that the continued weakness of export revenues would have weighed on household incomes and thus consumption and would have – together with weakened corporate profitability – also held back business investment.

The Finnish case is of some general interest, given that – on the one hand – Finland is an EMU country with strong institutions, solid public finances prior to crisis and a well-functioning banking system but – on the other hand – it has been hit by significant asymmetric shocks. Its recent macro performance is particularly interesting because Finland experienced a somewhat similar series of shocks in the early 1990s prior to the creation of the common currency. In that period the recovery was based on a rapid expansion of exports, which led first to growing investment and then also to growing consumption despite significant fiscal consolidation and serious banking problems. Export growth was supported by stronger external demand than in the current crisis and the phenomenal success of Nokia. Nevertheless, an important factor was a drastic improvement of cost competitiveness based first on a substantial depreciation of the Finnish currency and gradually also on a rapid growth of productivity.

In the current crisis, both of these two factors – the exchange rate adjustment and productivity growth – have been absent. Importantly, wage formation has not adapted to the change in the monetary regime. As a result, cost competitiveness has not improved but rather it has weakened during the seven years of the crisis. Given the unresponsiveness of the labour costs, being a member of the currency union appears to have slowed down the adjustment and recovery of the Finnish economy. However, it is unlikely that Finland would have avoided some deterioration of growth performance relative to its Northern peers even with the support of exchange rate flexibility; the shocks have simply been too big for that.

In any case, the recent Finnish experience underlines the importance of flexibility in other dimensions when there is no monetary autonomy. In the case of clearly temporary shocks, fiscal stabilisation obviously is a useful safety valve, and it is important to create capacity for such stabilisation, through prudent policies in good times, and possibly through a fiscal risk-sharing mechanism among currency area member states.



However, in the case of persistent or permanent shocks, adjustment is called for and that requires flexibility of the labour costs as well as labour mobility. Fiscal expansion does not necessarily help such an adjustment but may in fact slow it down. One of the reasons why the Finnish labour costs have been slow to adjust in the current crisis very likely is, given the institutions, the small increase in unemployment in the early years of the crisis, in part supported by the largest fiscal stimulus in the whole EU in 2009 and 2010.

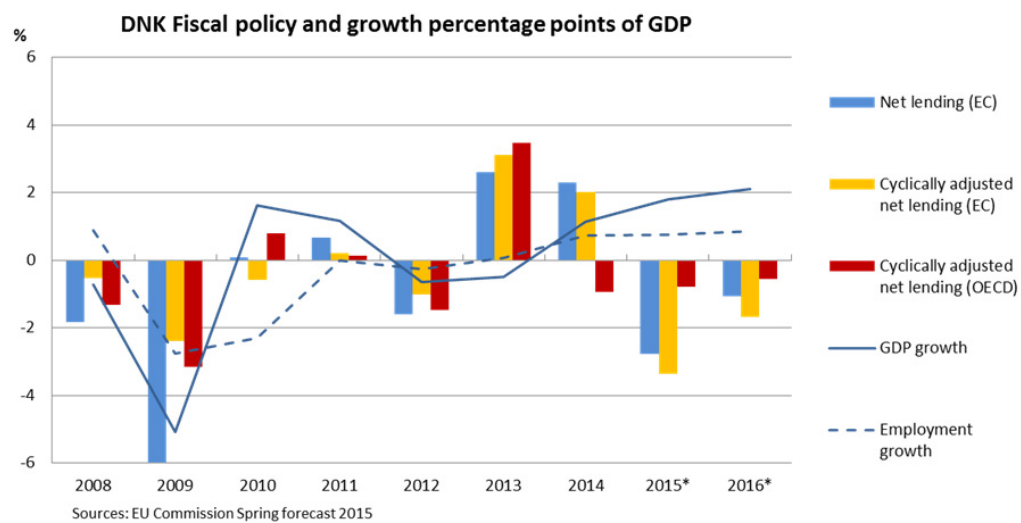
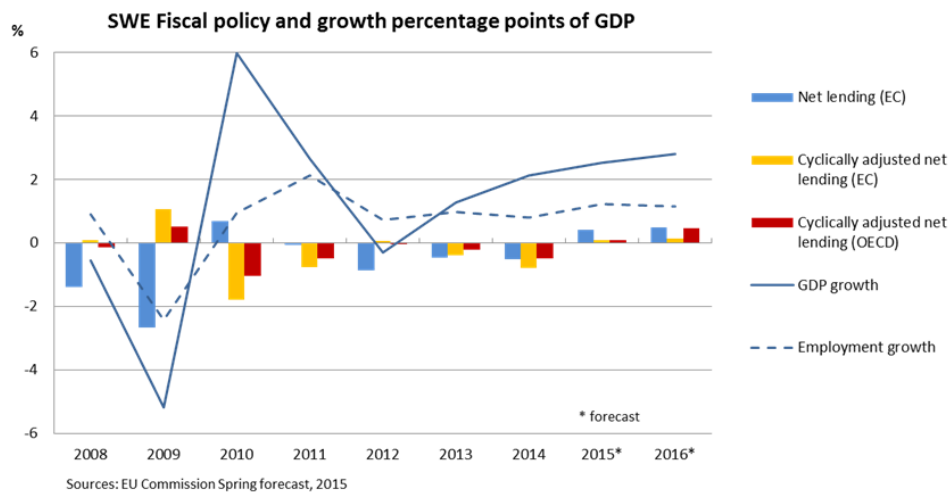
The degree of labour market flexibility needed in a country like Finland appears to be quite significant. A wage freeze since the beginning of the crisis would not have been enough to compensate for the export shocks hitting the economy through better competitiveness, even if the employment outcomes probably would have been significantly better. It seems that a fundamental reform of wage formation is a necessary condition for Finland to perform well in the monetary union. However, wage flexibility alone is unlikely to be sufficient in the presence of large shock. Resilience in other dimensions is needed as well.

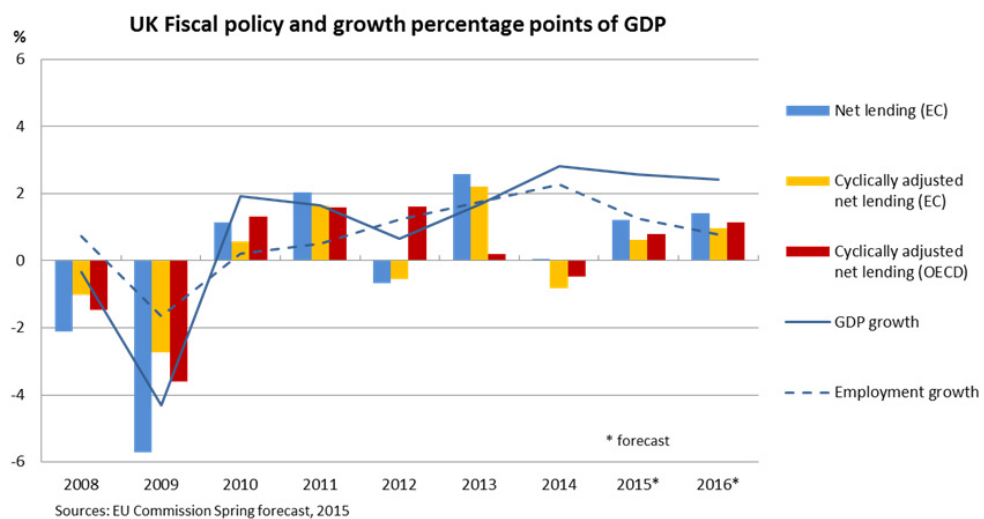
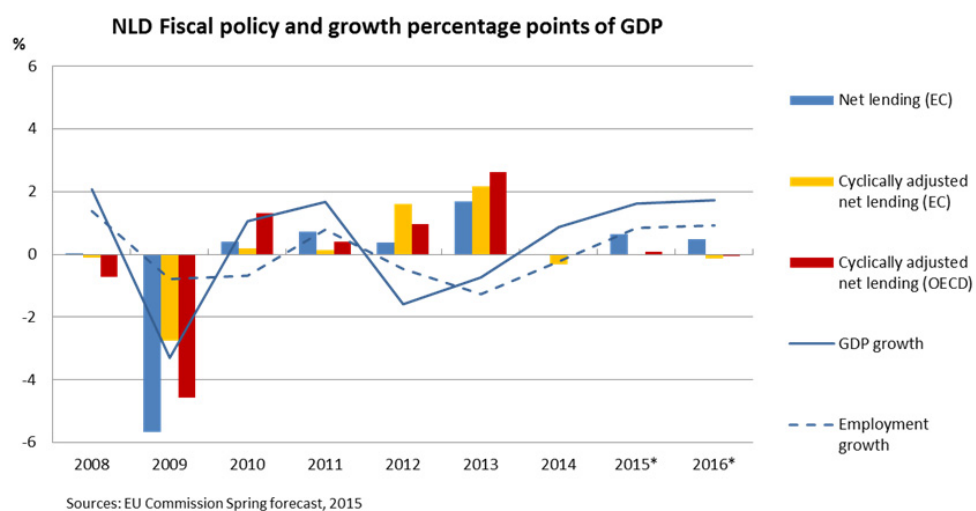
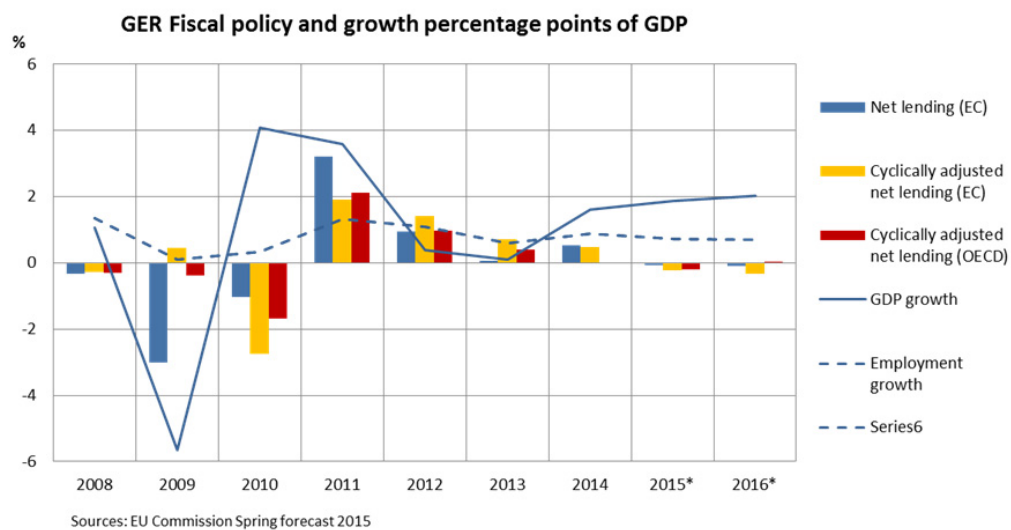


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## Appendix: Fiscal policy and growth over time









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