



CPB Netherlands Bureau for Economic  
Policy Analysis

# Uncertain supply

# *Fragile demand*



## Roads to recovery

### Chapter 7

### *Europe: challenges and risks*

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# 7 Europe: challenges and risks

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- Europe faces the challenges of redeploying its unused labour potential and tapping further growth potential out of structural reforms.
- The need for households, firms and governments to deleverage may hamper growth.
- Low inflation in Europe intensifies the setbacks from deleveraging.

## 7.1 Introduction

The crisis has struck hard in Europe. Prospects are improved, but for some countries the way to full recovery may be long. In the spring of 2014, outlooks for 2014 and 2015 indicate that growth is taking off in Europe (see, for instance, OECD, 2014). The European Commission expects the euro area to grow by 1.2% in 2014 and 1.7% in 2015. Germany remains an engine of growth in Europe. Growth is picking up in some of the countries that were hit hardest (Greece, Spain, Italy and Ireland). Growth in Italy and Portugal remains weak.

Although it may be said that prospects are improved, both imbalances and risks remain present. Across nearly all of Europe unemployment rates are high, as are private and public debts (see Chapter 1). Productivity growth is a major cause for concern in some countries in the south. In addition, it is uncertain whether the Banking Union will fully resolve the suffocating embrace of sovereigns and banks (see Chapter 2). Worries are rising, moreover, concerning deflation.

Recovery in Europe is essential, primarily for the southern countries that face high social and economic consequences of the crisis. But also the Netherlands is strongly influenced by the performance of the European economy. The open Dutch economy depends heavily on trade within Europe, with 80% of Dutch exports going to other European countries and 25% to Germany. Despite the turmoil in Europe, during the crisis foreign demand remained an important pillar that positively contributed to economic growth in the Netherlands. Of course, Germany is one of the cornerstones of the strong foreign demand for both Dutch products and for transit trade.

This chapter reviews various factors that affect growth and inflation in Europe.<sup>54</sup> From a supply-side perspective, structural reform stands centre stage. Reform of product-market regulations supports growth. The reform challenge applies to various goods and services markets in countries in southern Europe and to the internal market for services in all of Europe. Structural reform of labour markets, in particular, applies to countries with high rates of equilibrium unemployment. On the demand side, deleveraging by households, firms

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<sup>54</sup> Chapter 2 analyses financial markets and the Banking Union.

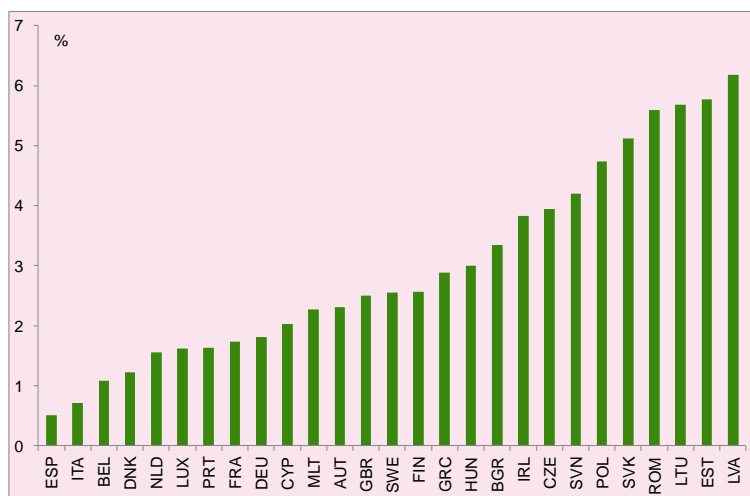
and governments in Europe may affect growth. The rate of inflation feeds back into the need for deleveraging. Moreover, low inflation may slow down the adjustment of real labour costs in southern countries and thus impair their growth prospects.

## 7.2 Structural reform: product markets

In general, pre-crisis growth returns after a financial crisis. Although empirical research shows that a financial crisis does result in a substantial one-time loss of production capacity (see Chapter 4), structural productivity growth rates often return (although this is measured with considerable uncertainty) to the values they had before the crisis. Hence, in an analysis of growth prospects for Europe, a reasonable starting point for the growth rate of labour productivity may be the value it had before the crisis.

When productivity growth rates return to their pre-crisis values they will display substantial differences between European countries. Figure 7.1 shows that over 1995-2007, labour productivity growth equalled 1.8% in Germany and 3.8% in Ireland. In contrast, labour productivity growth in Italy and Spain was much less.

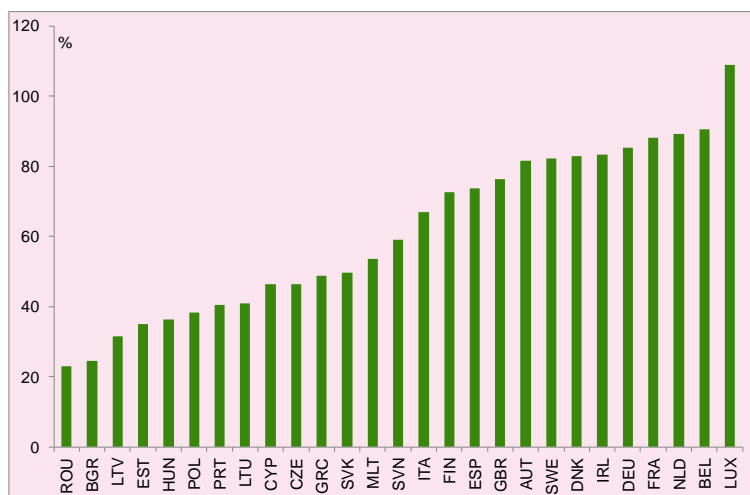
**Figure 7.1 Back to the pre-crisis trend of labour productivity growth yields a mixed picture (GDP per hour worked, average 1995-2007, The Conference Board)**



Differences in productivity levels relate to differences in productivity growth rates. Over time, each country's productivity growth cumulates into its productivity level. At the same time, the distance of a country's productivity level from the technological frontier, the US, delineates a certain catching-up potential. Countries with a large distance to the frontier have in principle substantial potential for productivity growth. Indeed, the high productivity growth rates of eastern European countries such as Poland clearly illustrate this (compare Figures 7.1 and 7.2). In contrast, productivity growth is much lower in countries close to the frontier, such as Belgium, the Netherlands, France and Germany.

Still, many European countries have great growth potential as they substantially lag behind the technological frontier. Even in the most productive EU countries, productivity lies some 10 %-points below the US level. Although the challenge of catching up with the US might be unrealistic for some countries, the catching-up potential within Europe is already considerable. Italy has a 21 %-point productivity gap with Germany. Portugal and Greece have a gap of 53 and 43 %-points, respectively.

**Figure 7.2 Substantial gaps in labour productivity levels with the frontier (GDP per hour worked, US =100, 2013, The Conference Board)**



The catching-up potential of a country is in itself not sufficient to get productivity growing. Countries need a well-educated labour force, a culture and institutions that encourage innovation, competitive markets, and so forth. Many productivity drivers concern structural factors that do not change quickly. For instance, educational improvements take quite some time to fully materialize. When better-educated youngsters leave school, the quality of the labour force rises only within their one-year cohort. It takes another 40 to 60 years for educational improvements to raise the quality of all workers.

On a ten-year horizon, structural reform in product markets is one of the factors that may effectively enhance productivity growth. The OECD Product Market Regulation (PMR) indicators ‘measure the degree to which policies promote or inhibit competition in areas of the product market where competition is viable’ (OECD PMR database definition). The pooled indicator (PMR in Figure 7.3) weighs together a range of sub-indicators in the fields of state control, barriers to entrepreneurship and barriers to trade and investment. On a scale of zero to 6, the pooled indicator ranges from 0.9 in the Netherlands to 1.8 in Slovenia. The Netherlands has the lowest score of the OECD, below the US and the UK.

Of all of the sub-indicators, the indicator on barriers in services sectors is substantially higher (see Figure 7.3). The indicator ranges from 1.9 in Switzerland to 4.6 in Italy. Although it covers only a part of services regulation (that is, barriers for start-ups), this indicator shows that services markets are in general more regulated than goods markets. This regulation may in part be useful: regulations that increase transparency in financial markets,

for instance, protect financially illiterate consumers. Yet, differences in the value of this indicator between countries suggest that further deregulation may be an option for several countries. Figure 7.3 shows that barriers in services sectors are high not only in a number of southern European countries, such as Italy, Spain, Greece and Portugal, but also in France and Germany. In line with the pooled indicator, the services market in the Netherlands is one of the least regulated in all of Europe.

**Figure 7.3 High barriers in services may restrict productivity (OECD Product market regulation indicator, 2013)**



Indeed, country reports (such as the OECD Economic Surveys) often emphasize the lack of product-market reforms, particularly in services sectors. Although product-market reforms increase competition, strengthen productivity and increase employment, they may be hard to implement, because of the power of vested interests. Such reforms often impose costs on small and usually well-organized groups in society, whereas the long-term gains benefit society at large.

In the IMF Jobs and Growth study, Anderson *et al.* (2014) analyse the growth impact of product-market reform in Europe. Reforms close about half of the gap between the countries' current regulatory burden and a frontier measure. In the periphery (Greece, Ireland, Italy, Portugal and Spain), reforms increase GDP by 10% in the long run, with 3.8% originating in the tradables sector and 6.2% in the non-tradables sector. In the core (the remainder of the euro area), the long-run effect on GDP is 5.7%, with 2.6% tradables and 3.1% non-tradables. After ten years, about 60% of the long-run effect has materialised.

A study carried out by the European Commission yields comparable results. Varga *et al.* (2013) analyse product-market reforms in the South (Greece, Italy, Portugal and Spain) and assess the long-run increase of GDP to be 12.5%. The high gains in the periphery illustrate the considerable reform potential in these countries, and the high share of non-tradables corresponds to the substantial reform challenge in services.

The EU Services Directive covers a part of the reform options in services markets (for a comprehensive overview, see Mustilli and Pelkmans, 2012). Monteagudo *et al.* (2012) assess the benefits of the Services Directive (as implemented end 2009) at 0.8% of GDP at least. A more ambitious implementation could yield extra benefits of 1.6% of GDP. The Services Directive pertains mainly to intra-EU cross-border services. It reduces direct barriers to trade in services and concomitant domestic barriers in services markets that obstruct trade. A considerable part of services are non-traded. This explains why the total impact of reform, as computed by Anderson *et al.* (2014) and Varga *et al.* (2013), exceeds the impact of the Services Directive.

Analogously, the Transatlantic Trade and Investment Partnership (TTIP) is set in motion to remove trade barriers in a wide range of economic sectors between the European Union and the US. It aims at cutting tariffs and at removing non-tariff barriers (“behind-the-border”) barriers, e.g. differences in technical regulations or standards. When successfully negotiate and implemented, the proposed reforms can have significant effects on growth. Francois *et al.* (2013) show that as much as 80% of TTIP’s potential gains of 1% of GDP would come from cutting costs imposed by bureaucracy and regulations, as well as from liberalising trade in services and public procurement. Clearly, these effects overlap with those of the Services Directive.

### 7.3 Structural reform: labour markets

Across Europe, many people lost their jobs during the crisis and unemployment soared (see Chapter 5). Only a few countries, including Germany, Austria, Norway and Switzerland, experienced a limited increase in unemployment. In several southern countries unemployment reached extremely high levels. Greece and Spain have particularly suffered: in 2013, more than a quarter of the labour force in these countries was unemployed. In addition, high unemployment in Portugal, Spain, Greece and Italy lead to a sharp increase of emigration of young and highly-educated people, who decided to explore their labour-market opportunities elsewhere.

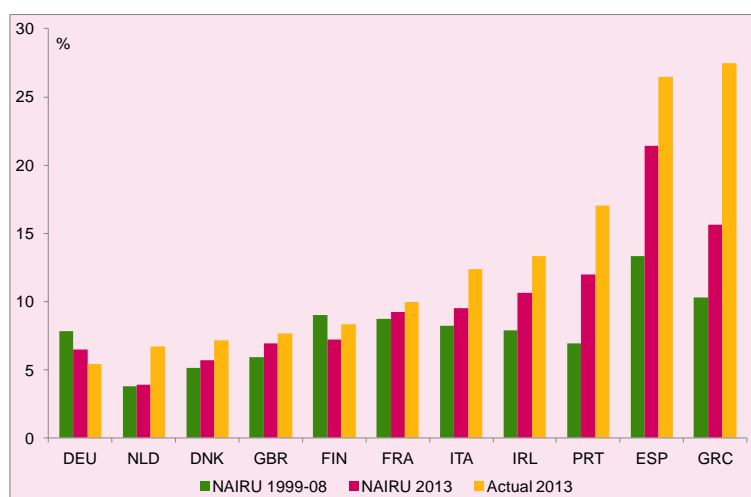
Figure 7.4 reports the actual harmonized unemployment rate and the NAIRU (the Non-accelerating inflation rate of unemployment) for several European countries. When unemployment lies below the NAIRU, the tight labour market generates wage inflation, which pulls down employment until unemployment equals the NAIRU. In contrast, when unemployment rises above the NAIRU, this creates a downward pressure on wages, which stimulates job creation. Hence, when countries start recovering from the crisis, the unemployment rate is expected to move towards the NAIRU.

The NAIRU interacts with the so-called equilibrium rate of unemployment. A “thought experiment” may illustrate how this operates. The magnitude of the NAIRU relates to effective search behaviour of unemployed people, the outside options for workers and the labour-market institutions. When the economy is in equilibrium, institutions such as the tax



wedge (the ratio between gross and net wages) and the replacement rate (the ratio between benefits and wages) determine the equilibrium rate of unemployment. As long as institutions do not change, equilibrium unemployment remains the same. When a negative shock, such as the Great Recession, hits the economy, people lose their jobs and unemployment rises. In a severe crisis, a large number of unemployed people find it hard to return to the labour market. After several fruitless attempts finding a job, people become disappointed and reduce their effort for reapplication. They remain unemployed but no longer compete for a job (hysteresis). In that case, the NAIRU rises to a level somewhere between the equilibrium and actual rate of unemployment. In the short- to medium term, actual unemployment is bounded from below by the NAIRU. Only when there are clear signs that the economy is recovering and prospects have improved will people again start looking for a job. The NAIRU starts to fall, and when the economy reaches a new equilibrium the NAIRU and the actual rate of unemployment gradually move towards the equilibrium rate of unemployment.

**Figure 7.4 Unemployment may remain high after the crisis (NAIRU average 1999-2008 and 2013, harmonised unemployment rate 2013, OECD)**



The increase in the NAIRU after the crisis indicates that in several countries a substantial part of unemployment has become structural on the short to medium term. In these countries unemployment would remain high in the early years of a recovery. In France and Italy the NAIRU is almost 10%, in Portugal 12%, in Greece almost 16% and in Spain even above 21% (see Figure 7.4). A comparison of the 2013 level of the NAIRU with the average before the crisis indicates that in some of these countries also institutions may prevent a substantial decline of unemployment after the crisis. Before the Great Recession the NAIRU was close to or above 10% in Greece, Spain, Italy, France and Finland. This calls for structural reform of institutions that affect the performance of the labour market. In other countries such as the Netherlands the NAIRU did not change during the Great Recession (see also Chapter 5).

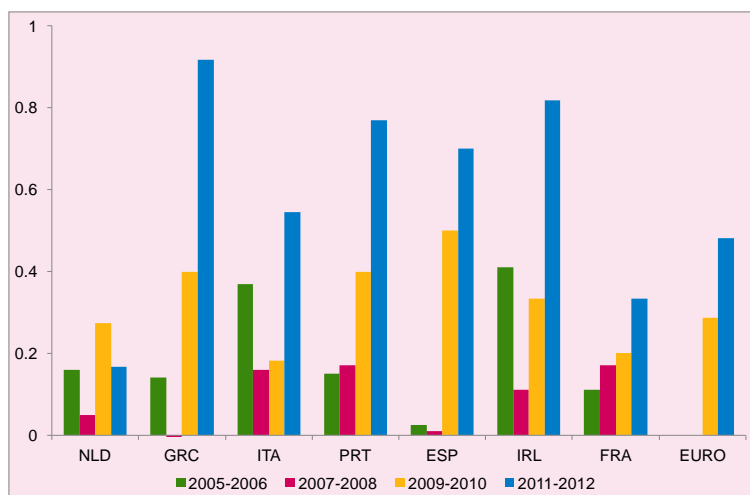
Dealing with the consequences of the crisis, several countries have already taken considerable steps toward reform, particularly regarding labour-market institutions. The OECD depicts the reform effort of countries in a composite indicator known as the reform



responsiveness indicator. The indicator measures the reform responsiveness in terms of fulfilling the agenda set in the OECD growth reports. Figure 7.5 presents the indicator over 2005-2012. It shows that Greece, Portugal, Ireland and Spain have been active reformers since 2009. These countries are subject to high reform pressure, which originates from the large impact of the crisis and IMF lending to Greece, Portugal and Ireland. Italy lags behind in terms of reform effort and France has adopted few reforms.

The Netherlands scores very low on reform responsiveness, i.e. the Netherlands scores very low when it comes to responding to OECD going for growth recommendations. Figure 7.5 shows that the Netherlands already has undertaken various reforms that other countries still face. Yet, according to the OECD, that is no reason for complacency. OECD (2013, p19) states: 'In contrast, less progress has been achieved in other euro area countries, in particular those with a current account surplus (e.g. Germany, Luxembourg and the Netherlands). Yet, reforms are also needed in these countries, in particular in areas that may help intra-euro area rebalancing, such as boosting competition in non-tradable sectors.'

**Figure 7.5 The crisis initiates reforms, but not everywhere (OECD reforms responsiveness index, 2005-2012)**



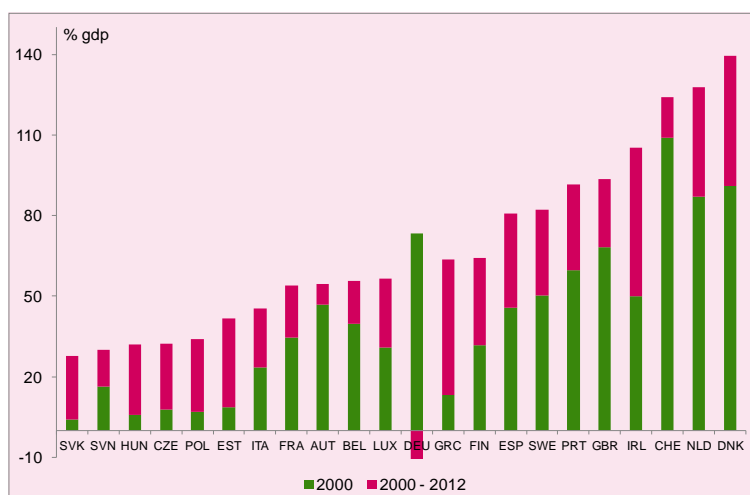
With regard to the labour market, Europe thus faces two main challenges on the way to recovery. The first is to redeploy its unused potential. When growth resumes and firms create new jobs, unemployment starts falling towards the NAIRU. Gradually, people who were hardly looking for a job will return to the labour market and the NAIRU may fall as well. The second main challenge has to do with structural reform, which will enable European countries to tap further growth potential. Despite substantial efforts in recent years, an unfinished agenda remains. Anderson *et al.* (2014) estimates that further labour-market reform would add 3.5% to GDP in the periphery countries and 2.8% in the core of Europe. Also the difference in the NAIRU with the best-performing countries illustrates that the labour-market reform potential may be substantial for some countries (Figure 7.4).

## 7.4 Private sector deleveraging

Deleveraging threatens countries with the prospect of stalling economic growth. Before the crisis, debts increased considerably in many countries, mainly related to rising asset prices and falling interest rates. A global savings glut, financial innovation and the perception of lower risk drove interest rates down (Bouis *et al.*, 2013; see also Chapter 1). Both households and firms saw debts soar, although in various ways for different countries depending on national institutions as well. After the crisis, falling asset prices led to a debt overhang. For households in a number of countries, collapsing house prices raised loan-to-value ratios.

The post-2000 credit boom is unprecedented, as Bornhorst and Ruiz-Arranz (2014) state. Over 2000-2012, household debt swelled by over 20 %-points of GDP in the majority of the European countries (see Figure 7.6). Only Austria witnessed a moderate increase, and only in Germany did debt fall. Over 2000-2008, assets rose in value as well, so that debt-to-asset ratios remained more or less stable (Bornhorst and Ruiz-Arranz, 2014). After 2008, falling asset prices hit households and eroded their net asset position. As a result, the level of household debt in 2013 is exceptionally large compared with historical episodes.

**Figure 7.6 Households face high debts**  
(Household debt, % GDP 2000, 2012, OECD)



### Deleveraging by households

A major question remains: to what extent do debts have to fall in order to return to sustainable values? Chapter 6 explores this question as well. From a life-cycle perspective, consumers spread a financial setback over their remaining lifetime. Yet in some cases consumers may reduce debts faster. For instance, when they want to cut back on a debt overhang in their mortgage, which restricts their perceived mobility on the housing market. Institutions may enable them to deleverage quickly as well. In the US, for example, fast

bankruptcy procedures contributed to the quick foreclosure of subprime mortgages.<sup>55</sup> When the crisis struck, many households could not pay the high interest rates on these mortgages. Other households reckoned that not paying off the mortgage would be an attractive way to resolve their debt overhang. Households went bankrupt, handed over the keys to their homes at the bank and moved elsewhere. This of course shifted the burden of deleveraging to the banks. Households in most European countries do not get rid of a debt overhang that easily. All in all, theory and institutions offer little guidance about the pace of deleveraging.

Empirically, several studies (Cuerpo *et al.*, 2013; Bouis *et al.*, 2013, Bornhorst and Ruiz-Arranz, 2014) address the deleveraging challenge of households by using 2000 debt levels as benchmarks. These studies refer to Tang and Upper (2010), which analyses previous bubbles and shows that after the burst deleveraging matches the build-up of debt before the bust. Therefore, debts may be expected to return to their pre-boom values. Figure 7.6 shows that this would yield a substantial challenge for many countries. Ireland, Greece, Denmark and the Netherlands stand out in particular, with debts in 2012 exceeding debts in 2000 by some 40 to 60% of GDP.

Chapter 6 argues that taking the year 2000 as a benchmark may be too rigorous, however. Whether debts have to fall all the way to their 2000 levels also depends on the value of assets and collateral. In the Netherlands, household debt has increased by 40.9% of GDP. Home prices have fallen by 20% since 2008, but that did not fully offset the increase in housing wealth over 2000-2008. Net housing wealth has fallen by 20.8% of GDP since 2000, representing about half the increase in debts. The deleveraging challenge falls to 15.9% of GDP in accordance with Chapter 6.<sup>56</sup> Although in a rather crude way, the latter finding may also be applied to other countries to compute an alternative deleveraging challenge.<sup>57</sup> In the Netherlands, 14% of total wealth from mortgages is 'underwater', i.e. the difference in euros between the value of a home and its mortgage. House prices fell by 20%; a 1 %-point fall in house prices thus implies that 0.7% of mortgage value goes under water.

Figure 7.7 presents three options for the deleveraging benchmark for households in Europe. It compares the 2012 value to the 2000 value of debt (with a minus sign added to indicate the deleveraging challenge) and does the same for net housing wealth. It estimates the value of mortgages under water as a % of GDP (also with a minus sign), using the above rule of thumb. Each percent nominal decrease in house prices since the top until 2013Q4 implies that 0.7% of loans to purchase a house go under water. Analogously to the Netherlands, in various other countries the fall in net housing wealth over 2000-2012 is considerably less than the rise in debt.<sup>58</sup> Sometimes net wealth even exceeds its 2000 value, despite higher debts. Italy, France and the UK are clear examples, where the net housing wealth indicator

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<sup>55</sup> In the US, the household debt ratio rose from 68.6% of GDP in 2000 to a top of 96% of GDP in 2007. Since then, a decline set in towards 80.3% of GDP in 2012. Hence, in the US households have offset almost 60% of the increase over 2000 - 2007. Defaults may explain two-thirds of the fall in US household debt over 2008-2012 (MGI, 2012).

<sup>56</sup> Note that in chapter 6 debt and wealth ratios are defined in terms of a percentage of disposable income.

<sup>57</sup> The rule of thumb assumes constant LTV ratios in each country. These do not necessarily have to be the same as in the Netherlands, which are known to be high.

<sup>58</sup> Due to data limitations, the net housing wealth indicator is not available for several countries.

shows that deleveraging is not in order. Figure 7.7 also shows that the ‘underwater’ indicator yields a relatively moderate need for deleveraging, compared to the debt indicator.

**Figure 7.7 Household deleveraging indicators (‘Debt’ 2000 minus 2012, OECD; ‘Net housing wealth’ 2012 minus 2000, OECD and ‘Underwater’ from rule of thumb, see text)<sup>59</sup>**



### Deleveraging by non-financial firms

Figure 7.8 presents two indicators for deleveraging by non-financial firms. The debt indicator is comparable to that of households and is used in the literature (see, for instance, Cuerdo *et al.*, 2013). It measures the increase in debts as a percentage of GDP since the year 2000. The net asset indicator is defined analogously. It takes into account that not only debt but also assets may have increased as well. Generally, the net asset indicator implies a smaller need for deleveraging than the debt indicator.

For countries on the right-hand side of Figure 7.8, the two indicators yield by and large a comparable ranking, with net assets obviously smaller in size. Ireland and Spain stand out as countries where the financial position of non-financial firms weakened considerably. Also in Portugal and Italy net assets of non-financial firms fell by 20% of GDP or more over 2000-2012. Yet, not only in the south of Europe did firms’ net assets fall substantially; this also happened in Sweden and Norway.

In contrast, net assets of firms in Finland, the Netherlands and the UK have surged since 2000. In 2000, the net asset positions of firms in these countries were highly negative. This improved substantially in the period before the crisis. This may relate to the relatively large share of multinationals in these countries. For the Netherlands, in particular, it is well known that savings by large non-financial firms account for a considerable part of the current account surplus. That doesn’t mean that all Dutch firms were immune from the crisis. Chapter 2 argues that most Dutch SMEs probably suffered from financial constraints due to restrictions in bank lending.

<sup>59</sup> Negative values indicate the need for deleveraging; positive values have been included for comparison. Bars of net housing wealth for Italy (87.7) and Estonia (- 87.0) fall outside presentation range.

**Figure 7.8 Non-financial firms deleveraging indicators**  
 (Debt 2000 minus 2012, Net assets 2012 minus 2000, OECD)<sup>60</sup>



Over time, the need for debt reduction depends on growth and inflation. A thought experiment: suppose current housing debt equals 110% of GDP and exceeds a benchmark by 40% of GDP. This roughly coincides with the Netherlands in Figure 7.7. In a high-growth scenario with 2% inflation, 2% growth of real GDP and zero net savings, the debt falls to 74% of GDP after ten years. Hence, inflation and growth erode almost the entire overhang. In contrast, in a scenario with 0.5% real growth and 0.5% inflation, the debt ratio still equals 100% after ten years. In this low-growth and low-inflation scenario, three-quarters of the initial debt overhang still remains after ten years.

According to Bornhorst and Ruiz-Arranz (2014), in many historical periods household deleveraging was passive. Inflation and economic growth eroded the debt ratio; households did not actively pay down debt. The thought experiment underscores that this is indeed the case in a high-growth scenario. In a scenario with low growth and the threat of deflation, however, active deleveraging may be unavoidable, which constrains demand and further hampers growth. Indeed, Bornhorst and Ruiz-Arranz (2014) state that due to weaker growth prospects and low inflation, deleveraging in the euro area will currently not benefit easily from higher nominal income and ‘will have to rely more on paying down debt’.

## 7.5 Public sector deleveraging

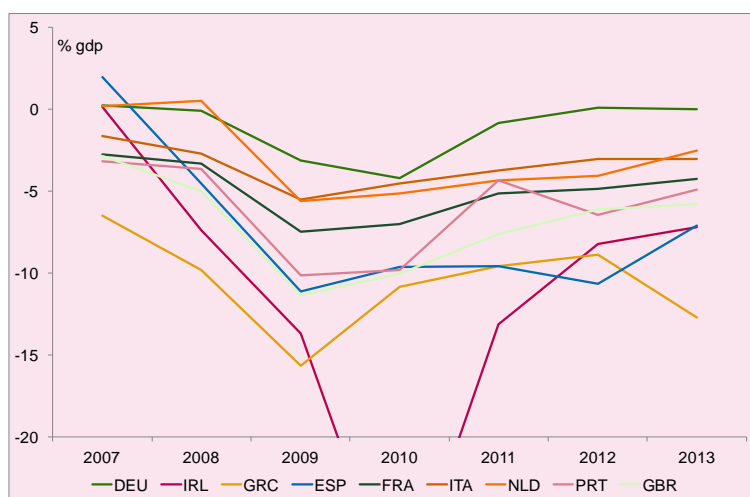
The financial crisis and subsequent euro crisis hit government finances hard in many European countries. Falling tax revenues and increasing expenditure are common consequences of a crisis. These automatic stabilizers dampen a demand shock. But this was no ordinary crisis. Figure 7.9 illustrates the impact on public balances for a number of countries. In the Netherlands, the general government financial balance fell in one year from

<sup>60</sup> Negative values indicate the need for deleveraging; positive values are included for comparison. Bars of net assets for Finland (163.9), the Netherlands (116.9) and the UK (40.3), and of debts for Ireland (-91.3) fall outside presentation range.

a small surplus of 0.5% of GDP in 2008 to a deficit of 5.5% of GDP in 2009. Relative to other countries this decline is moderate as compared to e.g. Spain which fell from a surplus of 2% of GDP in 2007 to a deficit of 11.1% in 2009.

High deficits over several years in a row also strongly raised public debt (Figure 7.10). Government support to banks in distress (nationalizations) caused debt to surge in a number of countries. In the Netherlands, for instance, public debt rose from 45.3% of GDP in 2007 to 58.5% of GDP in 2008 due to nationalization of Fortis/ABN AMRO and capital injections to ING, AEGON and SNS REAAL.<sup>61</sup>

**Figure 7.9 More than automatic stabilizers (General government financial balance 2007-2013, % GDP, Eurostat)**



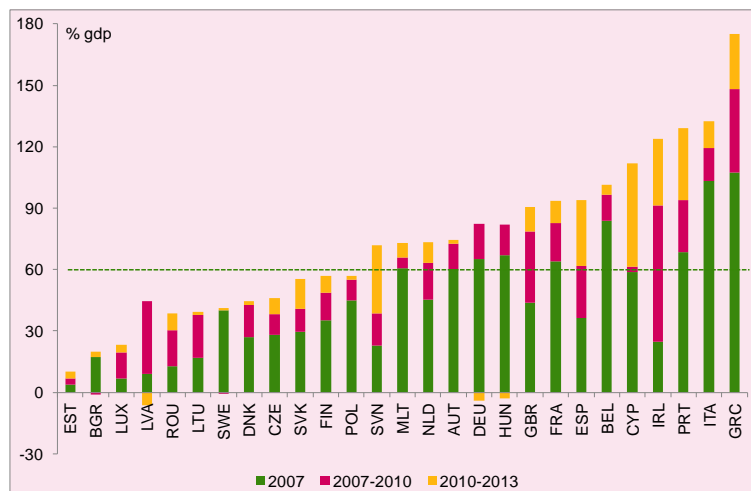
Mainly since 2011, governments in many European countries have initiated a range of consolidation measures to cut back public deficits. In countries such as Greece, Spain, Portugal and Ireland, these measures were inevitable to restore the trust of financial markets. Risk premiums on public debt accelerated rapidly and carried the risk of vicious circles in which public finances would spiral out of hand because of ever-rising interest burdens. Indeed, such a vicious circle turned the slumbering structural problems in Greece into an acute crisis. Triggered by the announcement of the Outright Monetary Transactions program of the ECB, falling risk spreads in several countries demonstrate that the unrest is receding.

Not only distressed economies engaged in consolidation. The UK government, for instance, initiated a number of consolidation measures in 2011. In deciding on consolidation measures, governments had to strike a complicated balance between the credibility of their long-term commitment to sound public finances, the negative short-run effects on demand of budget cuts or tax increases and for euro area members the institutional requirements posed by the Stability and Growth Pact and its successor treaties. This led to a heated debate on the size of the multiplier, *i.e.* the impact of consolidation measures on economic growth, and the

<sup>61</sup> See box 'Hoe werken interventies in de financiële sector door in de begroting?', p86, CPB (2009).

speed at which countries that were struck hard by the crisis should attain deficit and debt levels below 3 and 60%-points of GDP respectively.<sup>62</sup>

**Figure 7.10 Public debt surged (% GDP, 2007-2013, Eurostat)**



A large task still remains: to return to a public debt level below 60% of GDP requires a substantial reduction of public debt in all of the large EU countries and all of the periphery countries (Figure 7.10). Moreover, reducing the debt levels to 60% does not imply that debt is sustainable in the long run though (European Commission, 2012). Ageing may increase public expenditures when the government provides the same services to future generations as it delivers to current generations. In that case, deficits can increase substantially and with the associated interest burden accumulate into ever-increasing future debts. The sustainability challenge therefore also depends on how well a country has prepared to deal with ageing. Sustainability indicators capture this by showing the adjustments to the primary balances of countries that is required for debt sustainability.

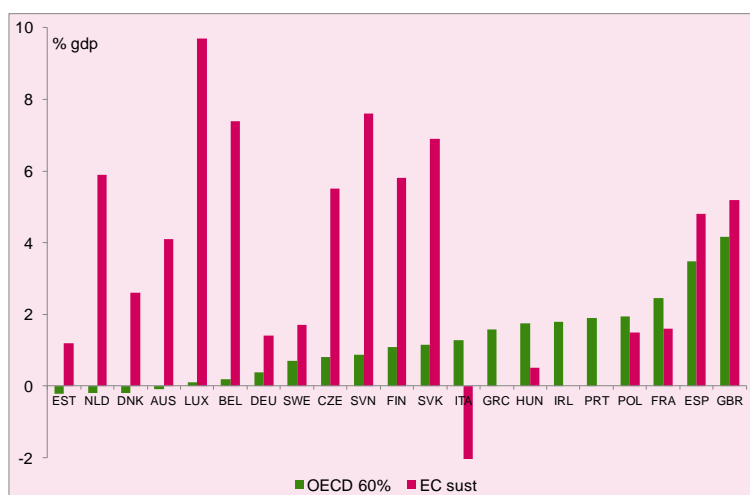
Figure 7.11 presents two indicators related to public sector deleveraging in a number of European countries. An OECD (2014) indicator calculates the change in primary balance that is needed to reduce the government debt to 60% of GDP in 2030. The indicator shows that the countries with high debts (UK, Spain, France, Portugal and Ireland) need to increase their primary balance by 2 to 4 %-points of GDP to restore debt to the EU target. The target for Greece is relatively small, because Greece already made a strong consolidation effort over 2010-2015, consisting of an 18% improvement of its primary balance in terms of GDP. The same also applies to Italy (4.5 %-points). The sustainability indicator of the EC shows that in several countries the consolidation needed to bring the deficit back to 60% is not sufficient in dealing with the challenge of ageing.<sup>63</sup>

<sup>62</sup> The Excessive Deficit Procedure in the 2011 reform of the Stability and Growth Pact starts when the deficit exceeds 3% of GDP or when public debt does not diminish sufficiently towards 60% when it exceeds 60% of GDP.

<sup>63</sup> Here, timing matters: the EC study was published in 2012 and does not take into account recent measures undertaken by some countries to reduce the burden of ageing, mainly by increasing the retirement age. For instance, recent measures considerably improved the Dutch sustainability balance.



**Figure 7.11 Consolidation required in order to reduce government debt to 60% (OECD) of GDP or to a sustainable level (EC) (Primary balance as % GDP)**



The need for debt reduction means that governments will have to face the choice in the next few years between rapid and gradual deleveraging (Abbas *et al.*, 2014). Gradual deleveraging implies that deficits and thus debts keep accumulating in the short run, which generates the need for higher primary balances in the future. Rapid deleveraging is also costly though, as the effects of consolidation are larger in the short run, while the economy is still functioning below potential. This trade-off mainly manifests itself in a low growth, low inflation environment. Analogously to private sector deleveraging, growth and inflation will ‘absorb’ part of public debt. According to Abbas *et al.* (2014), growth, in particular, supports reduction of public debt. Inflation mainly erodes debt in the first five years, because interest rates rise in line with inflation. After five years, a substantial part of public debt is refinanced against higher interest rates. Experiences in the past also show that accelerating growth, external demand and accommodative monetary policy supported debt reduction. Hence, in an environment of low growth, mainly fiscal consolidation will have to drive debt reduction.

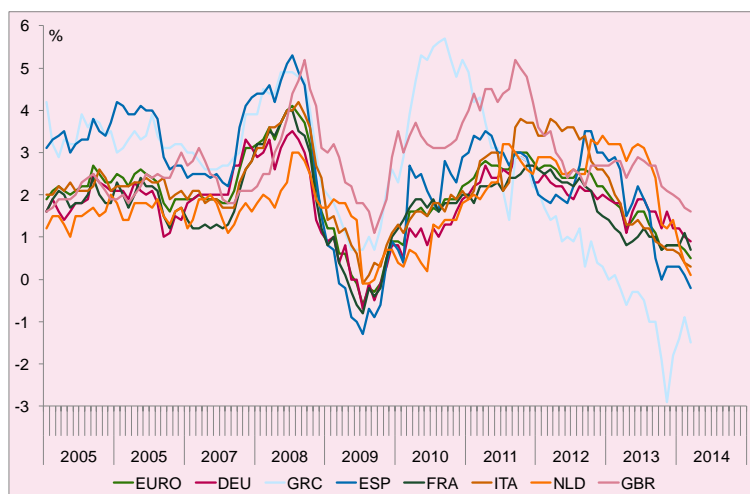
## 7.6 Deflation

Inflation is falling in Europe (Figure 7.12). Consumer price inflation in Spain and Italy is falling to values near zero. Greece has been facing deflation already for a full year. Even in Germany inflation is approaching 1%, and in France it already lies below 1%. In March 2014 the harmonized consumer price index of the euro area was 0.5% higher than it was in the previous year. The rate of inflation in the euro area rose to 0.7% in April and fell back to 0.5% in May.

The causes of falling inflation are mixed and not entirely clear. Prices of raw materials excluding energy fell by 5.5% in 2012 and 8.4% in 2013 (CPB, 2014). Energy prices fell by 4.6% over 2013. In addition, labour-market slack has exerted a downward influence on wages. Hence, the cost-push component of inflation is small. The same can be said of the

demand-pull component. In many European countries domestic demand is still weak and output gaps point to substantial excess capacity. Monetary policy should be able to counteract these deflationary forces to some extent. However, doubts exist about the effectiveness of monetary policy in the current circumstances. The zero lower bound on interest rates restricts the toolbox of central banks to unconventional measures, such as quantitative easing. Yet, the strong increase of asset prices over the period of quantitative easing in the US has raised the question of whether this type of monetary policy might have a stronger effect on asset prices than it does on the prices of goods and services.

**Figure 7.12 On the brink of deflation? (Harmonised Indices of Consumer Prices selected countries, monthly data, annual rate of change, Eurostat)**



Sustained low inflation or deflation would hinder recovery from the crisis. The adverse effects may manifest themselves in three ways. Firstly, low inflation raises the real interest rate, which incites consumers to postpone consumption. With high real interest rates, saving becomes more attractive than consumption. This effect primarily occurs when consumers expect that interest rates will remain high, or price increases low for some time in the future. In contrast, a one-time sudden drop in inflation with the expectation that it will return to its previous rate may stimulate consumption, because it raises real disposable income. High real interest rates due to low inflation also raise the real cost of capital for firms. As a consequence, firms will cancel investment projects that no longer meet required rates of return.

Second, and more importantly, low inflation or deflation raises the real burden of debt. The ratio of nominal debt to nominal income rises when prices hardly grow or fall. By consequence, debtors further increase savings to reduce their debt burden. If the marginal propensity to consume of debtors exceeds that of creditors, as is usually the case, then deflation slows down consumption. This drain on domestic demand depresses prices further. Analogously, the debt burden of firms and governments rises, which incites them to step up deleveraging. These consequences of deflation may seriously impair recovery in the economies of countries overloaded with debts.

Third, low average inflation in the euro area makes it difficult to solve the European unemployment problem, particularly in the periphery countries, where unemployment is high and productivity growth is low. Lower real unit labour costs would improve the employment outlook for these countries. When prices and productivity hardly grow, lowering nominal wages is the only way to achieve a fall in real labour costs. Nominal wage cuts are very hard to accomplish, though. IMF Blog (2014) contains a graph showing that 30% of the wage change distribution in Spain lies at the zero bound in 2011.

The risks and consequences of deflation depend largely on the growth prospects for Europe. Feedback effects matter a lot here. For high growth prospects they are positive, i.e. growth fuels inflation, which erodes debts and facilitates wage adjustment in the periphery. Falling unemployment and improving balances further stimulate growth. When positive feedbacks lead to overheating, monetary policy may intervene. In the event that inflation threatens to accelerate beyond the target of the central bank, monetary policy shifts from expansionary to contracting. Although doubts have risen about its effectiveness near the zero lower bound, monetary policy has proven rather effective in curbing high inflation.

If growth remains at its current rate, deflation is not very likely. In that case, moderate inflation may hinder growth mainly through difficult adjustment in the periphery countries. Only when growth prospects diminish, negative feedback effects emerge, i.e. growth slows down, and deleveraging kicks in. This will increase the risk of near-zero inflation over a considerable period of time, which again slows down growth.

## 7.7 Conclusion

Growth and inflation will shape the recovery in Europe. If European countries resume growth, unemployment will fall, as will public and private debt ratios. Virtuous circles appear. Higher employment generates income and tax revenues. Less unemployment limits social security contributions. There is less need for forced savings when the ratio of debts to GDP or income is lower. Moreover, countries will benefit from the prosperity of other countries through trade linkages. In this financial crisis, inflation has a comparable effect. If inflation accelerates, it lowers debts in real terms; it also enables countries with low productivity growth to adjust wages to productivity without having to cut nominal wages. In contrast, low growth and almost-zero inflation may generate vicious circles.

The perspective for the Dutch economy in the next decade depends significantly on the prospects for Europe. Chapter 2 shows that the outcome of the AQR and stress tests, as well as the way that weak banks restore their capital asset ratios, strongly influence the future of financial markets in Europe. This chapter shows that economic growth in Europe may benefit from the reduction of national regulatory barriers in markets for goods and services, particularly in southern European countries. Analogously, the expansion of the internal market for services throughout Europe contributes to growth. Regarding the labour market,

Europe faces the challenge of redeploying its unused potential. In addition, structural reform on the labour market will enable European countries to tap further growth potential.

Downward risks relate to the extent to which households and firms restrict consumption and investment to restore their debts to acceptable levels, and the need for governments to raise taxes or reduce expenditure to contain their debt within limits set by financial markets or EU agreements. Moreover, the future rate of inflation in Europe may intensify or diminish the deleveraging challenge.

These factors constitute building blocks for the scenarios in the next chapter. The degree to which they manifest themselves the coming years will determine whether virtuous or vicious cycles will be set into motion.

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Financial crisis, euro crisis what's next? The title of this book suggests an answer: recovery. Yet, what road will it take? Recovery of the financial sector, the labour market and the housing market? Originating from resilience of the European and Dutch economies? Leading to the return of pre-crisis consumption growth? Recovery is a plausible road for the economies of Europe and the Netherlands in the next decade. But it's not the only road. Continuing demand shortfalls may delay the recovery.

*Roads to recovery* focuses on the Dutch economy in a European context. The book reviews the impact of the Great Recession and paints a picture of the economy today. It gives an outlook into the next decade by means of three scenarios for the European and Dutch economies.

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