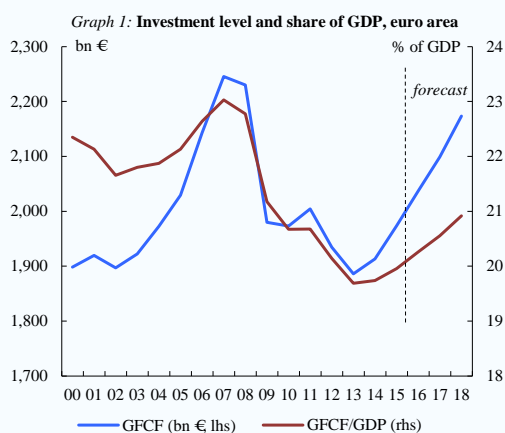


Box I.4: How is the recovery proceeding in the euro area?

Now that GDP in the euro area has passed its pre-crisis level is a good moment to take stock of the state of the recovery again. Previous assessments of the recovery have pointed to its subdued pace, the weakness of domestic demand, in particular investment, the drop of potential growth and the slow closure of the output gap.⁽¹⁾ This analysis shows that in late 2016, the recovery is still incomplete in several important respects and economic slack is still significant.

Domestic demand still weak, mostly due to investment

Private consumption has been a steady and robust contributor to the recovery of GDP. Like GDP, private consumption is now past its pre-crisis peak. By contrast, the contribution from investment to GDP growth has been more volatile and, until recently, weaker. The level of investment is still about 9% from its peak. More meaningfully (considering that the investment level was affected by a boom in some Member States in the run-up to the crisis), the share of investment in GDP is about 2 pps. lower than in the early 2000s (see Graph 1).



A corollary to weak investment is the savings-investment imbalance that has led to an increase of the euro-area current-account surplus from close to balance in the early 2000s to 3.5% in 2016. Looking at imports and exports separately, the picture of weak domestic demand⁽²⁾ persists: The

⁽¹⁾ A detailed analysis was done by E. Ruscher and B. Vasicek (2015). 'The euro area recovery in perspective'. *Quarterly Report on the Euro Area* 14(3), 6-18.

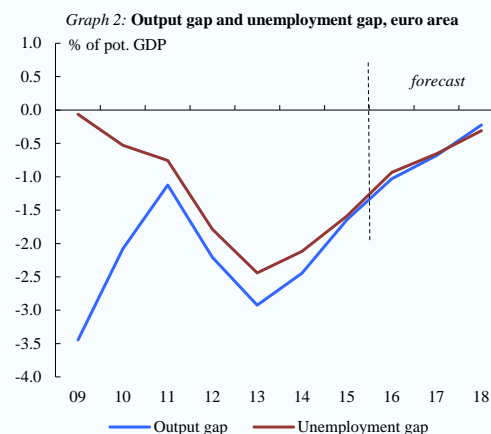
⁽²⁾ For a more formal analysis see the box on 'The cyclical component of current-account balances' in European Commission (DG ECFIN) (2014). 'European Economic Forecast – Winter 2014'. *European Economy* 2.

increase of the euro area's trade surplus in recent years was driven by slow import growth, while exports grew at a rate similar to that of the pre-crisis period.

Furthermore, the euro-area economy is not catching up with the US economy in terms of per-capita GDP or potential growth. GDP per capita in the euro area has stagnated at about 75% of the US level since the mid-1990s, losing further ground in 2011-15. Potential GDP growth in the US has recovered to about 2% in 2016 against 1% in the euro area. Over the medium term it is projected at 1.8% in the US by 2021 and 1.1% in the euro area.

The pace of output-gap closure is set to slow down

From -3.4% in 2009, the euro-area output gap (i.e. the difference between actual and potential GDP) has been reduced to -1.0% in 2016.⁽³⁾ The projected GDP expansion over the forecast horizon is set to reduce the output gap further without closing it completely (-0.2% in 2018). However, the pace at which this reduction occurs is now slowing down considerably compared to previous years (see Graph 2). In 2016, the output gap narrowed by 0.6 pps.; in 2017 the gap is expected to be reduced by only 0.3 pps. in a context of diminishing growth drivers (see also box 1).



⁽³⁾ On the methodology for estimating the output gap and the NAWRU see Havik, K., K. Mc Morrow, F. Orlandi, C. Planas, R. Raciborski, W. Röger, A. Rossi, A. Thum-Thysen, V. Vandermeulen (2014). 'The Production Function Methodology for Calculating Potential Growth Rates & Output Gaps'. *European Economy Economic Paper* 535.

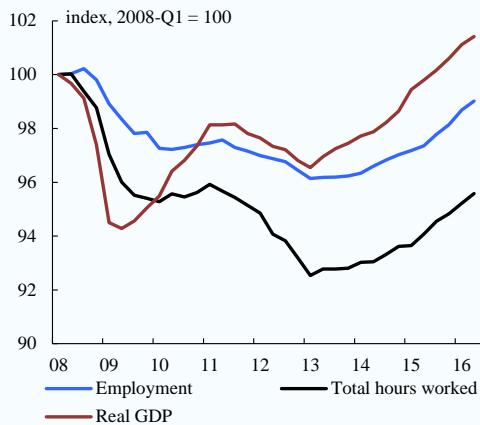
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Box (continued)

Still substantial slack in the labour market...

Unemployment stood at 10.1% in the euro area in August 2016. This is 0.9 pps. above the estimated non-accelerating wage rate of unemployment (NAWRU). Employment has been increasing faster than past performance of labour markets would have suggested in view of the moderate GDP growth. However, employment so far remains below pre-crisis levels: The pre-crisis number of 154 million jobs in the euro area is only set to be reached again in 2017. In the meantime, labour supply has increased on the back of population growth and a further expansion of labour-market participation. Moreover, the recovery in headcount employment contrasts sharply with hours per worker, which dropped by about 3% between 2008 and 2013 and have not shown any signs of increasing since (see Graph 3).

Graph 3: Employment, total hours worked and real GDP, euro area

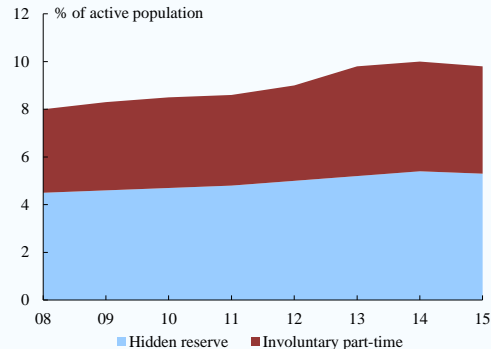


The corollary of increasing employment and flat hours per worker is increased part-time employment, which does not always reflect workers' preferences. The share of those in involuntary part-time work (those who work part-time would prefer a full-time job if one was available) rose by 7 percentage points to 31% of part-time workers in the euro area between 2007 and 2015.⁽⁴⁾ This suggests that total hours worked could be expanded significantly to accommodate an increase in demand, without resulting in higher headcount employment or lower unemployment figures. The hidden employment reserve is also still substantial. The number of persons who were either looking for a job but not immediately available, or available but not actively searching increased from 3.3% of the labour force in 2008 to 4.3% in 2015

⁽⁴⁾ European Commission (2016): Labour market and wage developments in Europe.

(see Graph 4). In sum, the slack present in the labour market is likely to be substantially higher than suggested by the unemployment rate.

Graph 4: Hidden reserve and involuntary part-time work, euro area

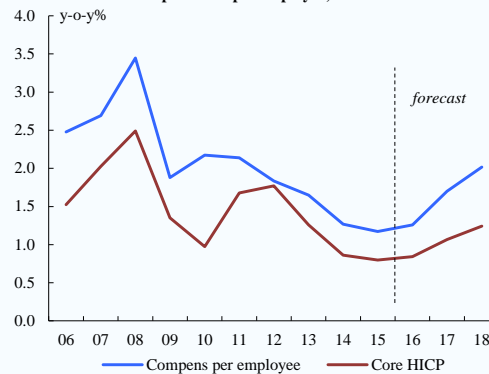


Source: Eurostat. Hidden reserve: people seeking work but not immediately available plus people available for work but not seeking.

...contributes to low core inflation.

Labour-market slack is one reason why wage growth and core inflation are not picking up more strongly.⁽⁵⁾ Compensation per employee has increased by 1¼% in each of the past three years and is expected to pick up only gradually to 2% in 2018. Core inflation was 0.8% in September 2016, having evolved in a range of 0.6-1.0% over the past two years. It is projected to increase very gradually to 1.3% in 2018 (see Graph 5).

Graph 5: Core inflation and compensation per employee, euro area



Potential growth dropped during the crisis...

Potential growth has fallen from 1.9% in 2000-08 to 0.5% in 2009-14 as investment collapsed, unemployment surged and total factor productivity (TFP) growth further slowed.

⁽⁵⁾ Jarocinski M. and M. Lenza (2016). 'An inflation-predicting measure of the output gap in the euro area'. *ECB Working Paper*, 1966.

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Box (continued)

Lower investment in the crisis and its aftermath has been attributed to low (expectations of) aggregate demand, adverse financing conditions, deleveraging needs, and uncertainty. Another reason for a decline in total investment has been public expenditure cuts primarily directed towards public investment. Productivity growth declined as companies have pulled back on investment and the adoption of new technologies during the recession, ⁽⁶⁾ this impacts productivity growth in a longer-lasting way. Capital misallocation in the run-up to the crisis may also have contributed to the slowdown in TFP growth. In the labour market, the NAWRU increased due to sectoral mismatch and hysteresis stemming from the cyclical increase in unemployment amid wage and price rigidities.

...but the crisis impact is expected to fade gradually.

As shown in Table 1, the estimated individual contributions from capital and labour to potential growth do not recover to pre-crisis levels, and TFP growth is estimated to remain subdued. However, pre-crisis potential growth of 2% is also clearly not attainable. The capital contribution before the crisis was inflated by unsustainable over-investment in a number of Member States. The labour contribution is structurally reduced by population ageing, and its dampening impact on labour force growth will become more stringent in the coming years.

This leaves the question of how much potential growth can be recovered, and under what conditions. The baseline scenario for the medium term is a gradual recovery of investment rates, a declining trend of the NAWRU on the back of

structural reforms undertaken in many Member States and a stabilisation of TFP growth.

This baseline is subject to the downside risk that expectations of slow growth feed back into firms' sales expectations and lead them to hold back on investment, thus perpetuating the weakness of capital formation and probably preventing a recovery of TFP growth at the same time. This can be understood as a form of hysteresis.

On the upside, policies that increase TFP growth (e.g. supporting private and public R&D, product market reforms) could reverse its long-standing trend decrease. Moreover, in the presence of hysteresis, demand-side policies may increase medium-term supply as recently suggested by Federal Reserve Chair Janet Yellen. ⁽⁷⁾ A temporary boost to aggregate demand might draw discouraged workers back into the labour market and stronger demand could potentially yield productivity gains by prompting higher levels of research and development spending and increasing adoption rates of new technologies. Moreover, as low demand expectations are at present the strongest impediment to investment, higher demand in the short run could accelerate capital accumulation and increase the growth potential.

Table 1: Potential growth trends: past, present and future

	2000-08	2009-14	2015-21
Potential GDP growth	1.9	0.5	1.1
Contributions from:			
Total labour	0.4	-0.1	0.3
Capital	0.8	0.3	0.4
TFP	0.7	0.4	0.5
NAWRU	9.1	9.5	9.0

⁽⁶⁾ see Anzoategui, D., D. Comin, M. Gertler and J. Martinez (2016). 'Endogenous Technology Adoption and R&D as Sources of Business Cycle Persistence'. *NBER Working Paper* No. 22005. Varga, J., W. Roeger and J. in 't Veld (2016). 'Financial crisis and TFP growth in the Euro Area'. *European Economy Economic Paper*, forthcoming.

⁽⁷⁾ <https://www.federalreserve.gov/newsevents/speech/yellen20161014a.htm>