

# The Swedish Economy

March 2016



National Institute of Economic Research







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#### **Errata**

Compared to the original version of this report, the following correction has been made:

- Page 30, Table A6: Some of the entries (down to, and including, “Direct taxes”) have been corrected.

# Contents

Summary of the forecast ..... 5

Forecast revisions..... 10

**SPECIAL ANALYSIS**

Labour market reforms in Germany and Sweden..... 13

**TABLES AND GRAPHS**

Tables and graphs..... 25



## Summary of the forecast

**The Swedish economy is entering a boom period. The influx of refugees will contribute to expansionary fiscal policy this year and next, while low inflation means that interest rates will remain low. Demand and employment will therefore grow quickly, and unemployment will fall. But there are also challenges: integrating refugees into the labour market will require very extensive action, and the rapid population growth will exacerbate the already considerable imbalances in the housing market.**

The Swedish economy has been growing strongly for more than a year (see Diagram 1). GDP increased by 1.3 per cent from the third to the fourth quarter of 2015. This was due to a sharp rise in domestic demand, while exports also grew surprisingly strongly given the weak growth in world trade (see Diagram 2). The strong growth in exports in the fourth quarter was due partly to non-recurring effects, however, and investment in home improvements also surged temporarily ahead of the reduction in the ROT tax allowance at the end of the year. Together with the statistics available for the first quarter this year and indicators for households and firms, this suggests that growth in GDP will slow in the first half of 2016 (see Diagram 1). Growth will nevertheless be strong enough for the Swedish economy to enter a boom period this year.

### UNCERTAINTY ABOUT THE GLOBAL ECONOMY

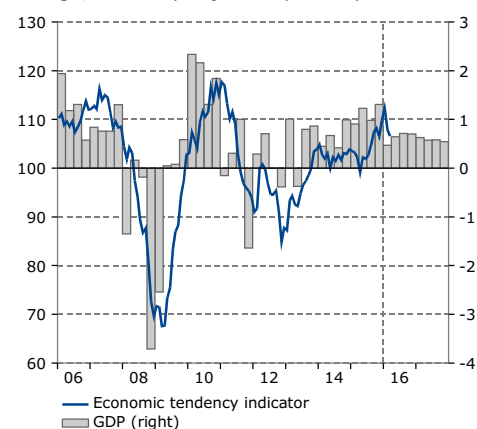
The start of the year has featured uncertainty about the global economic outlook. Question marks over the situation in China and the strength of the US recovery have come under the spotlight. Financial markets have been volatile, but in the past month stock markets have rallied and the turmoil in financial markets has eased. Incoming statistics also suggest that the real economy is continuing to strengthen in the US and much of the euro area. This continued recovery is being supported by low interest rates. Together with a growing need for investment, this is boosting demand, and the annual rate of GDP growth in the OECD countries is expected to hold around 2 per cent over the next couple of years (see Diagram 3).

Meanwhile, low oil and commodity prices are pulling down growth in some emerging markets. Among the largest of these markets, the economic climate is worst in Brazil and Russia, where GDP fell sharply last year and will continue to decline this year. As the climate improves in the coming years, emerging markets will grow slightly more quickly, although the rebalancing in China towards more consumption-led growth will hamper growth to some extent (see Diagram 3).

The steep slide in oil prices over the past year will contribute to further low inflation in most OECD countries in 2016. Next

**Diagram 1 Economic tendency indicator and GDP**

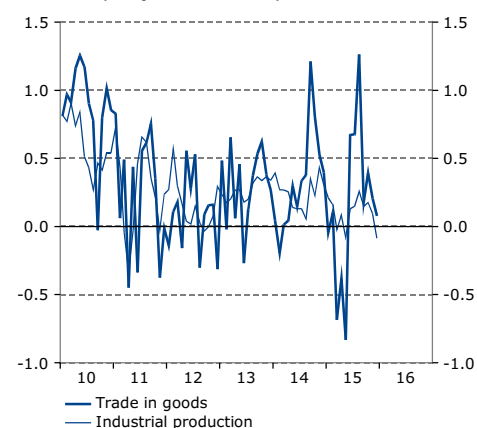
Index mean=100, monthly values and percentage change, seasonally adjusted quarterly values



Sources: Statistics Sweden and NIER.

**Diagram 2 Global trade in goods and industrial production**

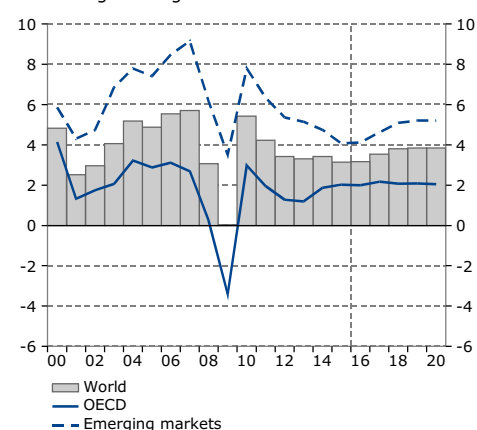
Percentage change, 3-months moving average, seasonally adjusted monthly values



Source: CPB Netherlands Bureau for Economic Policy Analysis.

**Diagram 3 GDP world-wide, in OECD and emerging markets**

Percentage change

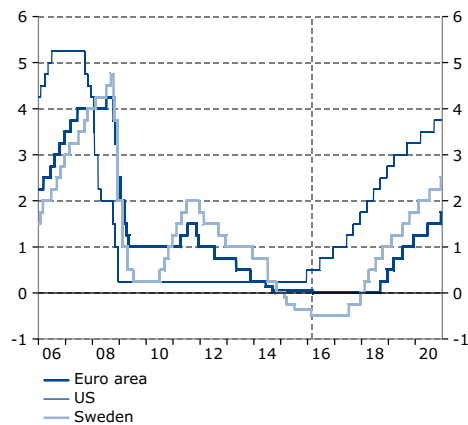


Note. Emerging markets here refer to all non-OECD member countries.

Sources: OECD, IMF and NIER.

**Diagram 4 Policy rates**

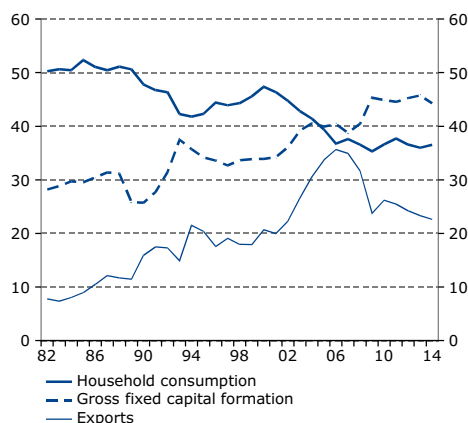
Per cent, daily values



Sources: ECB, Federal Reserve, The Riksbank and NIER.

**Diagram 5 Investments, household consumption and exports in China**

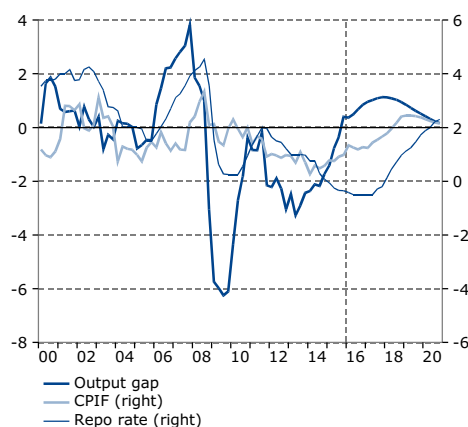
Per cent of GDP, current prices



Source: World Bank.

**Diagram 6 Output gap, CPIF and repo rate**

Per cent and annual percentage change, quarterly values



Sources: Statistics Sweden, The Riksbank and NIER.

year, the effects of lower oil prices will fade. Together with rising resource utilisation, this means that inflation will pick up. The Federal Reserve will therefore continue to raise its key rate gradually towards more normal levels (see Diagram 4). The ECB, on the other hand, will not begin to raise its key rate until late 2018, because the recovery in the euro area is less advanced. In addition, downside risks dominate in the euro area due to many banks still having weak balance sheets and to general political uncertainty about the future of the EU.

### RISK OF ABRUPT SLOWDOWN IN CHINA

Perhaps the most significant risk to the global economy, however, is that of a sharp slowdown in China. Recent decades' investment-led expansion has probably created major imbalances in the economy (see Diagram 5). In some parts of the economy, there are now clear signs of excess capacity, weak earnings and the situation becoming unsustainable. There is a risk that the necessary correction of investment will be abrupt and broad-based, with the result that GDP growth falls much further than expected. In the worst case, there could be a negative spiral of weak earnings, credit losses, greatly reduced lending and weak demand growth.

So long as a slowdown in China does not trigger serious turbulence in financial markets or a sharp downturn in world trade, the effects on Swedish GDP growth are expected to be limited.<sup>1</sup>

### BOOMING ECONOMY IN SWEDEN

Although growth in Swedish GDP will slow in early 2016, resource utilisation in the economy will continue to rise. The NIER believes that the economy is entering a boom period and that the output gap will turn clearly positive (see Diagram 6).

Recent years' strong growth in Sweden is partly a result of the global economy recovering from the financial crisis. The low interest rate policy has stimulated domestic demand while also keeping down the value of the krona, which has boosted exports. The stronger investment climate in the OECD countries means that Swedish exports – which include a high proportion of investment goods – will continue to grow this year and next, albeit not as rapidly as last year.

Both fiscal and monetary policy will stimulate domestic demand in 2016 and 2017. Government consumption is forecast to grow by around 4 per cent this year, which is very high by historical standards (see Diagram 7). The increase is due largely to higher refugee-related costs, but a growing share of young and elderly people in the population is also increasing the need

<sup>1</sup> See the special analysis "Effekterna av en markant konjunkturedgång i Kina" [Effects of a sharp economic downturn in China] in the Swedish version of *The Swedish Economy*, June 2015.



for government-funded welfare services. The Swedish Migration Agency's latest forecast indicates that inflows of asylum seekers will remain high in 2016 and 2017.<sup>2</sup> This will contribute to further rapid growth in government consumption next year, but there is considerable uncertainty about the level of immigration.

The ever stronger economy means that firms' need to invest will continue to grow. Demographic developments will also exacerbate the existing major need for increased government investment and investment in housing. Investment will therefore continue to fuel growth in Sweden over the next couple of years. In addition, a strong labour market will lead to a relatively rapid rise in household income, with the result that household consumption increases in 2016 and 2017 at around the same rate as in 2015 (see Diagram 8).

After rising rapidly over the past two years, housing investment is now at its highest level relative to GDP for more than 20 years (see Diagram 9). A shortage of labour and development land will, however, rein in this growth. There is already an unmet need for housing, and the strong population growth means that demand for housing will continue to rise rapidly. Housing investment will still therefore be insufficient to address the housing shortage. To do this, action will be needed both to further increase supply and to ensure more efficient use of the existing housing stock.

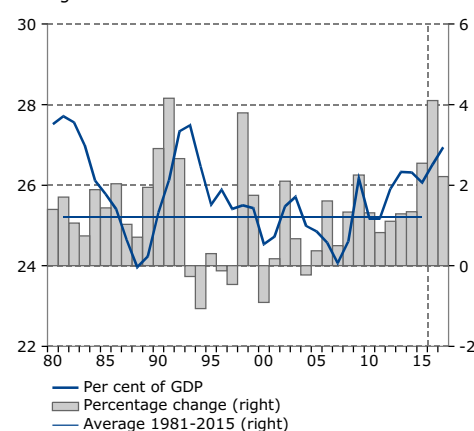
All in all, this means that GDP will continue to grow relatively quickly this year and next (see Table 1). Expressed per capita, however, growth will not be especially strong: there will be only a modest increase of 0.9 per cent next year, and GDP growth per capita will be even weaker in the years after that. One reason is that the population is set to expand rapidly as the refugees now arriving in Sweden receive residence permits and begin to count as part of the population. It will, however, take a long time for many of them to gain employment and so contribute to output, which will put a damper on GDP growth per capita. If the refugees are integrated successfully into the labour market, GDP per capita may instead increase more quickly further ahead as more find work.

## PRESSURE ON THE LABOUR MARKET

Employment has grown relatively swiftly in recent years, and the number of employed increased by 0.5 per cent in the fourth quarter of 2015. Firms' recruitment plans as reported in the NIER's Economic Tendency Survey, together with other indicators, suggest that employment will continue to rise at around the same rate in the coming quarters. Slightly further ahead, however, the increase will slow as demand growth in the economy

**Diagram 7 General government consumption expenditure**

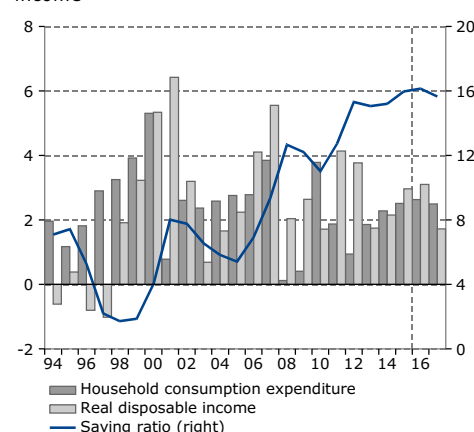
Per cent of GDP, current prices and percentage change



Sources: Statistics Sweden and NIER.

**Diagram 8 Household consumption, real disposable income and saving ratio**

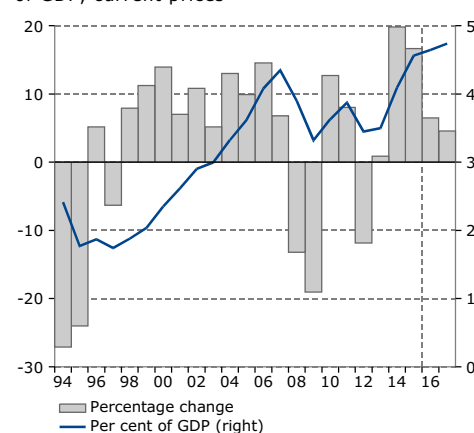
Percentage change and per cent of disposable income



Sources: Statistics Sweden and NIER.

**Diagram 9 Housing investments**

Percentage change, constant prices and per cent of GDP, current prices

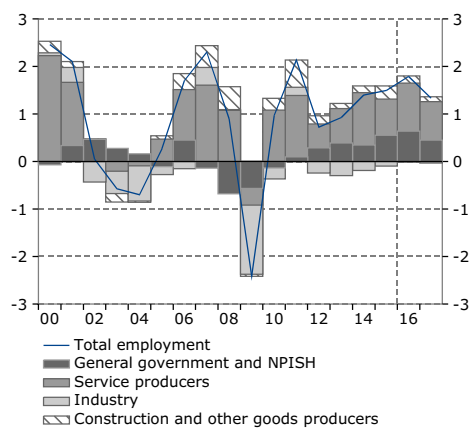


Sources: Statistics Sweden and NIER.

<sup>2</sup> See "Verksamhets- och utgiftsprognos" [Activity and Expenditure Forecast], Swedish Migration Agency, February 2016.

**Diagram 10 Contributions to employment growth**

Percentage change and percentage points

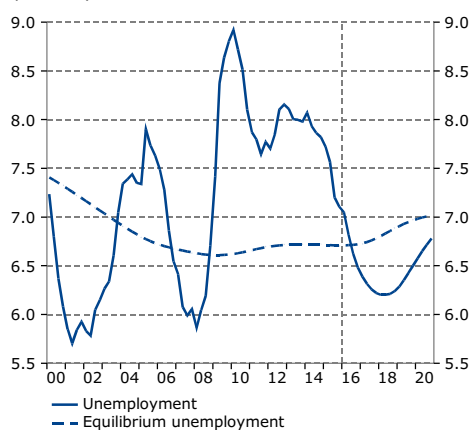


Note. NPISH refers to non-profit institutions serving households..

Sources: Statistics Sweden and NIER.

**Diagram 11 Unemployment and equilibrium unemployment**

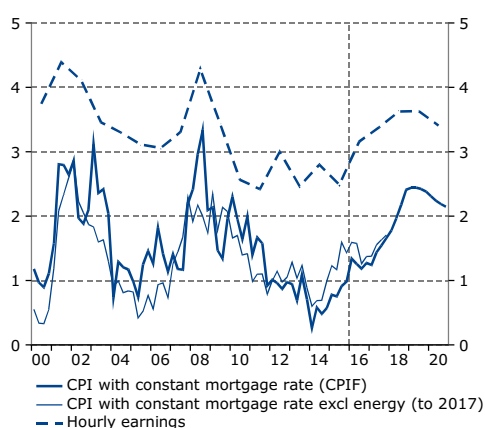
Per cent of labour force, seasonally adjusted quarterly values



Sources: Statistics Sweden and NIER.

**Diagram 12 Consumer prices and earnings**

Annual percentage change, quarterly and annual values



Sources: Statistics Sweden, National Mediation Office and NIER.

eases. The growing need for welfare services means that the government sector will make an unusually large contribution to the rise in employment (see Diagram 10).

The strong employment growth means that unemployment will continue to fall, bottoming out at 6.2 per cent in 2018 (see Diagram 11). Resource utilisation in the labour market is then expected to be higher than normal. At the same time, more and more refugees will be joining the labour force, which will continue to grow relatively quickly. This strong labour market in itself bodes well for the integration of refugees, but because it takes a long time on average for new immigrants to find work, it is likely that both equilibrium unemployment and actual unemployment will increase gradually as the refugees enter the labour market. To counter this, structural measures will be needed to make it easier for groups with a weak position in the labour market to gain employment.

### SLOWLY RISING INFLATION

Inflation has been well below the Riksbank's target for the past five years (see Diagram 12). The protracted global downturn has led to weak growth in prices for internationally traded goods. At the same time, the domestic downturn put a damper on wage growth and made it harder for firms to transfer cost increases to consumers. Inflation as measured by the consumer price index with a fixed interest rate (CPIF) increased last year, however, due primarily to the depreciation of the krona since 2013, but was still only 0.9 per cent.

CPIF inflation will continue to climb slowly in the coming years. The previous depreciation of the krona will contribute less and less to rising prices, while international prices will remain weak. The fall in energy prices will also hold back inflation.

The strong labour market means, however, that wages will gradually accelerate in the coming years (see Diagram 12 and Table 1). Cost pressures on firms will therefore mount, and the strong demand growth will provide greater opportunities to pass on cost increases to consumers and also to increase margins. The krona will strengthen somewhat in the coming years, however, and so growth in import prices will be weak. CPIF inflation will not therefore hit 2 per cent until 2018.

Low inflation and low inflation expectations mean that the Riksbank will leave the repo rate at -0.50 per cent until summer 2017 despite a booming economy (see Diagram 13). One reason why the repo rate will not be raised earlier, or more quickly once the hiking cycle begins, is that the krona would then strengthen further. In the short term, inflation would then be even lower, leading to a risk of inflation expectations falling and confidence in the inflation target being further undermined.

**Table 1 Selected indicators**

Percentage change, unless otherwise indicated

	2014	2015	2016	2017	2018	2019	2020
GDP, market prices	2.3	4.1	3.5	2.3	1.9	1.6	2.0
GDP per capita	1.3	3.0	2.3	0.9	0.3	0.0	0.5
GDP, calendar-adjusted	2.4	3.8	3.3	2.6	2.0	1.6	1.8
GDP, world	3.4	3.1	3.2	3.5	3.8	3.9	3.8
Current account balance <sup>1</sup>	4.2	4.9	6.4	5.7	5.3	4.8	4.6
Hours worked <sup>2</sup>	1.8	1.0	2.0	1.7	1.1	0.6	0.4
Employment	1.4	1.4	1.7	1.4	1.0	0.7	0.6
Unemployment <sup>3</sup>	7.9	7.4	6.7	6.3	6.2	6.4	6.7
Labour market gap <sup>4</sup>	-1.1	-1.1	0.0	0.7	1.0	0.8	0.4
Output gap <sup>5</sup>	-2.1	-0.5	0.6	1.1	1.0	0.7	0.3
Hourly earnings <sup>6</sup>	2.8	2.5	3.2	3.4	3.6	3.6	3.4
Hourly labour costs <sup>2</sup>	1.7	4.2	3.6	3.5	3.6	3.6	3.4
Productivity <sup>2</sup>	0.5	2.6	1.3	0.9	0.9	1.0	1.3
CPI	-0.2	0.0	0.8	1.2	3.2	3.5	3.2
CPIF	0.5	0.9	1.3	1.5	2.1	2.4	2.2
Repo rate <sup>7,8</sup>	0.00	-0.35	-0.50	0.00	1.00	1.75	2.50
Ten-year government bond rate <sup>7</sup>	1.7	0.7	1.1	2.0	2.9	3.8	4.3
Effective krona exchange rate index (KIX) <sup>9</sup>	106.8	112.6	109.8	108.0	105.9	103.8	101.7
Government net lending <sup>1</sup>	-1.6	-0.3	-0.3	-0.6	0.2	0.6	0.9
Structural net lending <sup>10</sup>	-0.9	-0.2	-0.4	-1.0	-0.5	0.0	0.7
Maastricht debt <sup>1</sup>	44.9	43.4	41.7	41.1	40.2	39.1	37.6

<sup>1</sup> Per cent of GDP. <sup>2</sup> Calendar-adjusted. <sup>3</sup> Per cent of labour force. <sup>4</sup> Difference between actual and potential hours worked in per cent of potential hours worked.

<sup>5</sup> Difference between actual and potential GDP in per cent of potential GDP.

<sup>6</sup> According to the short-term earnings statistics. <sup>7</sup> Per cent. <sup>8</sup> At year-end. <sup>9</sup> Index 18 November 1992=100. <sup>10</sup> Per cent of potential GDP.

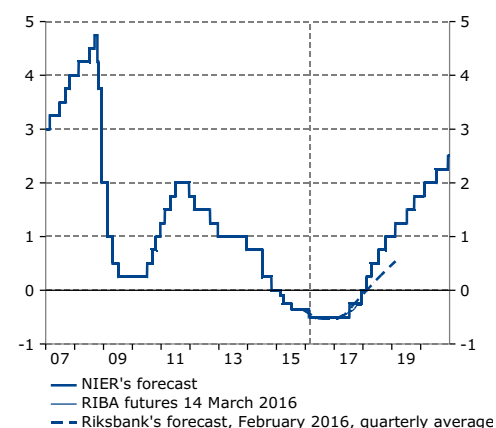
Source: IMF, Statistics Sweden, National Mediation Office, the Riksbank and NIER.

## EXPANSIONARY FISCAL POLICY TO BE TIGHTENED FURTHER AHEAD

Fiscal policy was expansionary in the period 2009–2014, resulting in a decline in structural net lending in the government sector (see Diagram 14). Last year, fiscal policy became more contractionary, as all increases in expenditure were funded with equivalent tax increases. This helped strengthen structural net lending. In 2016 and 2017, however, structural net lending will deteriorate as a result of heavy refugee-related expenditure. The decline in structural net lending means that fiscal policy will be expansionary despite the absence of any unfunded increases in expenditure. With the economy operating above capacity, fiscal policy will therefore be temporarily procyclical. Refugee-related expenditure will ease in 2018, and fiscal policy will return to a contractionary stance, resulting in improved structural net lending.

**Diagram 13 Repo rate**

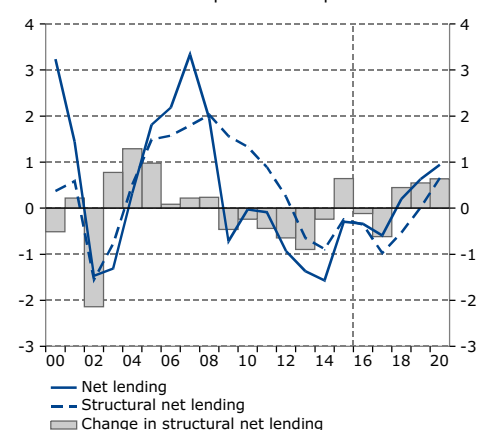
Per cent, daily and quarterly values



Sources: Nasdaq OMX, The Riksbank and NIER.

**Diagram 14 General government net lending and structural net lending**

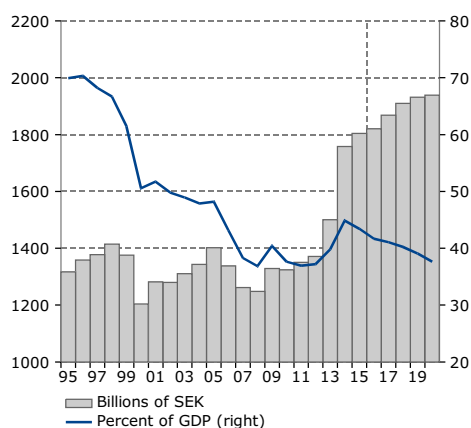
Per cent of GDP and per cent of potential GDP



Sources: Statistics Sweden and NIER.

**Diagram 15 Gross public debt (Maastricht debt)**

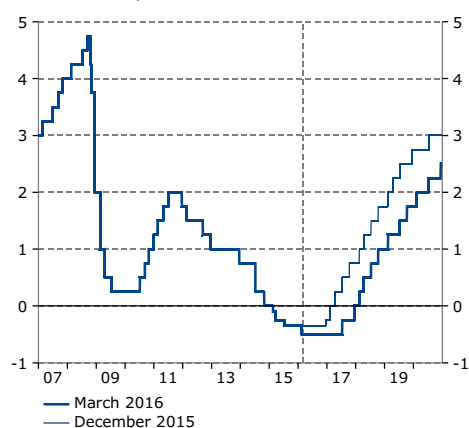
SEK billion and per cent of GDP



Sources: Statistics Sweden and NIER.

**Diagram 16 Repo rate**

Per cent, daily values



Sources: The Riksbank and NIER.

ing. The NIER believes that a tightening of fiscal policy is justified given that structural net lending is negative.

The negative net lending in the coming years means that general government gross debt will continue to climb. As GDP will rise rapidly during the same period, the debt-to-GDP ratio will nevertheless come down (see Diagram 15). From this perspective, public finances will remain robust.

## Forecast revisions

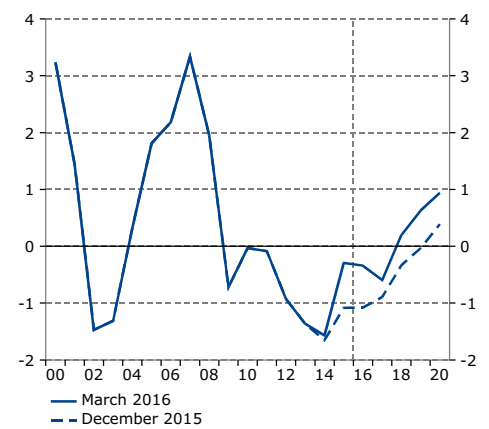
The growth outlook for both Sweden and the rest of the world is slightly less bright than in the previous forecast. GDP growth is now expected to be a few tenths of a percentage point lower in both 2016 and 2017 than at the time of the December 2015 forecast (see Table 2).

- Weaker incoming data on world trade, global industrial production and PMI data in late 2015 and early 2016 warrant a slight downward revision of the GDP forecasts for most countries.
- The price of oil has fallen further since December 2015 but now seems to have stabilised around USD 40 per barrel. The forecast for 2016 and 2017 has been revised down by around USD 6 per barrel.
- Weaker growth and lower inflation, due largely to the lower oil price, has changed our expectations for the leading central banks' monetary policy. Interest rates are now expected to rise more slowly in the US, and monetary policy in the euro area has been made more expansionary through rate cuts and further bond purchases.
- GDP growth was surprisingly strong in Sweden in 2015 but is now expected to slow somewhat both at home and abroad. All demand components are expected to grow slightly more slowly than in the December forecast. Growth will nevertheless be sufficient for resource utilisation to increase. The output gap will turn clearly positive, albeit not to the extent previously forecast.
- The low price of oil has prompted a downward revision of the forecast for CPIF inflation this year and next.
- The Riksbank lowered the repo rate to  $-0.50$  per cent in February and is not now expected to start raising interest rates until summer 2017, which is more than six months later than forecast in December (see Diagram 16).

- General government net lending was higher than expected in 2015. This was due partly to a temporary surge in tax revenue, but some of the increase in income is expected to persist. In the longer term, the pressure on expenditure has decreased slightly as a result of lower immigration, which will also boost net lending (see Diagram 17).

**Diagram 17 General government net lending**

Per cent of GDP



Sources: Statistcs Sweden and NIER.

**Table 2 Current forecast and revisions compared to the previous forecast in December 2015**

Percentage change, unless otherwise indicated

	2016		2017	
	March 2016	Diff.	March 2016	Diff.
<b>Global economy</b>				
GDP, world	3.2	-0.3	3.5	-0.2
GDP, OECD	2.0	-0.3	2.2	-0.2
GDP, euro area	1.6	-0.2	1.8	-0.2
GDP, US	2.1	-0.5	2.4	-0.2
GDP, China	6.3	-0.1	5.8	-0.2
Federal funds target rate <sup>1,2</sup>	1.00	-0.25	1.75	-0.50
ECB refi rate <sup>1,2</sup>	0.00	-0.05	0.00	-0.30
Oil price <sup>3</sup>	40.3	-5.8	45.6	-6.5
CPI, OECD	1.1	-0.4	2.1	-0.1
<b>Domestic economy</b>				
GDP, calendar-adjusted	3.3	-0.4	2.6	-0.2
GDP	3.5	-0.4	2.3	-0.2
Household consumption	2.7	-0.1	2.4	-0.2
Government consumption	4.1	-0.8	2.2	-0.3
Gross fixed capital formation	4.3	-0.8	3.8	-0.2
Stockbuilding <sup>4</sup>	0.0	0.0	0.0	0.0
Exports	4.2	-0.5	3.2	-0.4
Imports	4.1	-0.8	4.0	-0.7
<b>Labour market, inflation, interest rates etc.</b>				
Hours worked <sup>5</sup>	2.0	-0.3	1.7	-0.3
Employment	1.7	-0.1	1.4	-0.3
Unemployment <sup>6</sup>	6.7	0.0	6.3	-0.2
Labour market gap <sup>7</sup>	0.0	-0.1	0.7	-0.1
Output gap <sup>8</sup>	0.6	-0.2	1.1	-0.3
Productivity <sup>5</sup>	1.3	-0.1	0.9	0.1
Hourly earnings <sup>9</sup>	3.2	0.0	3.4	0.0
CPI	0.8	-0.1	1.2	-1.0
CPIF	1.3	-0.2	1.5	-0.2
Repo rate <sup>1,2</sup>	-0.50	-0.25	0.00	-0.75
Ten-year government bond rate <sup>1</sup>	1.1	-0.2	2.0	-0.3
Effective krona exchange rate index (KIX) <sup>9</sup>	109.8	-0.2	108.0	0.2
Current account balance <sup>11</sup>	6.4	0.3	5.7	0.4
Government net lending <sup>11</sup>	-0.3	0.7	-0.6	0.3

<sup>1</sup> Per cent. <sup>2</sup> At year-end. <sup>3</sup> Brent crude, USD per barrel, annual average. <sup>4</sup> Change in per cent of GDP the previous year. <sup>5</sup> Calendar-adjusted. <sup>6</sup> Per cent of labour force. <sup>7</sup> Difference between actual and potential hours worked in per cent of potential hours worked. <sup>8</sup> Difference between actual and potential GDP in per cent of potential GDP. <sup>9</sup> According to the short-term earnings statistics. <sup>10</sup> Index 18 November 1992=100. <sup>11</sup> Per cent of GDP.

Note. The change is between the current forecast and the December 2015 forecast. A positive value denotes an upward revision.

Source: NIER.

## SPECIAL ANALYSIS

# Labour market reforms in Germany and Sweden

**After a decade of high unemployment and weak growth, Germany introduced sweeping reforms of the labour market in 2003–2005. The Hartz reforms aimed to boost the supply of and demand for labour, improve matching between the unemployed and vacancies, and increase flexibility in the German labour market. The reforms are hotly debated in Germany but are believed to have contributed to the improvements in the German labour market since the mid-2000s. This special analysis first describes the various components of the Hartz reforms. It then looks at how the German labour market has performed since 2005 in comparison to the Swedish labour market, and how the Hartz reforms may have contributed. Finally, we examine how the past decade's labour market reforms in Sweden differ from the Hartz reforms.**

### HARTZ REFORMS INTRODUCED IN FOUR STAGES

The Hartz reforms<sup>75</sup> are a cluster of policy measures intended to increase the labour supply, improve the efficiency of employment services and labour market policy measures, activate the unemployed and foster demand for labour through reduced regulation of the labour market. The reforms consisted of four packages (Hartz I–IV) implemented in 2003–2005 (see Table 19). A number of changes have been made since, but large parts of the Hartz reforms still apply.

### THE HARTZ REFORMS CONTAINED MEASURES TO MAKE LABOUR MARKET POLICY MORE EFFICIENT

To make labour market policy more efficient, the federal employment service was reorganised and active labour market policy programmes were shortened and re-focused on those expected to benefit the most. The effects of different labour market policy programmes also began to be evaluated systematically. The programme mix was revised to increase the focus on training initiatives, wage subsidies and start-up grants, while public employment programmes that had proved ineffective were phased out. For a period, special service agencies were trialled

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<sup>75</sup> The reforms take their name from Peter Hartz, chairman of the independent committee of experts that drew up the proposed reforms. A more detailed description of the reforms can be found in, for example, Ebbinghaus and Eichhorst (2006) and Jakobi and Kluge (2007).

with the role of hiring out and training the hard-to-place unemployed.<sup>76</sup> The active labour market policy programmes have since been revised continuously based partly on the results of evaluations.<sup>77</sup>

**Table 19 Summary of the Hartz reforms**

<b>Hartz I</b> Decided 1 Dec 2002 Effective 1 Jan 2003	Deregulation of staffing agencies and short employment contracts, new service agencies for the unemployed, vouchers for complementary placement activities, vouchers for vocational training for the unemployed, stricter requirements for job-seekers, wage subsidies for older workers
<b>Hartz II</b> Decided 1 Dec 2002 Effective 1 Jan 2003 and 1 April 2003	New business start-up grant, deregulation of mini-jobs, new midi-jobs, extended exemptions from dismissal rules for firms with 5–10 employees
<b>Hartz III</b> Decided 1 Dec 2003 Effective 1 Jan 2004	Restructuring of federal employment service, recruitment contributions for older people and those with reduced capacity for work
<b>Hartz IV</b> Decided 1 Dec 2003 Effective 1 Jan 2005	Reform of unemployment insurance (including reduced replacement rates, shorter duration of benefits), sanctions for the unemployed

Sources: Ebbinghaus and Eichhorst (2006) and Jakobi and Kluge (2007).

#### **UNEMPLOYMENT INSURANCE TIGHTENED TO INCREASE THE LABOUR SUPPLY**

To increase the supply of labour, unemployment insurance was made less generous through lower replacement rates, shorter benefit periods, stricter requirements for job-seeking and sanctions for those not accepting job offers.<sup>78</sup> The eligibility criteria for unemployment insurance benefits were tightened. For example, it was no longer possible to qualify for a fresh period of unemployment insurance benefits by taking part in an active labour market policy programme.

After the reforms, unemployment benefits were largely unchanged for the short-term unemployed<sup>79</sup> who qualified for unemployment insurance benefits. Those who had been out of

<sup>76</sup> These were withdrawn after a few years when evaluations showed that they did not lead to shorter periods of unemployment for those covered by the service.

<sup>77</sup> A detailed description of German labour market policy can be found in, for example, Caliendo and Hogenacker (2012).

<sup>78</sup> A detailed description of German unemployment insurance can be found in, for example, Caliendo and Hogenacker (2012).

<sup>79</sup> Up to 6–12 months of unemployment depending on previous duration of employment.



work for a longer period, on the other hand, faced a drastic reduction in benefits. This applied particularly to older people, who had a much shorter period of unemployment insurance benefits (see box in margin).

The big reduction in unemployment benefits in the Hartz reforms came after the period covered by unemployment insurance. Before the reforms, unemployment benefits after the unemployment insurance period were income-based and relatively high.<sup>80</sup> They were also paid without a time limit. The Hartz reforms merged the income-based benefit for the long-term unemployed with the social security benefit.<sup>81</sup> Today, there is only one benefit level for all long-term unemployed and for those not eligible for unemployment insurance benefits. For those who do not qualify for unemployment insurance benefits, the replacement rate is actually slightly higher than before. The reforms provided a greater incentive to take any available work, including casual and part-time work. To reduce high marginal effects, the long-term unemployed taking jobs on low pay got to keep parts of their unemployment benefit.<sup>82</sup> Wage subsidies were also introduced for older unemployed people accepting work on a lower wage than before they became unemployed. The reform of unemployment insurance is the element of the Hartz reforms that encountered the greatest criticism in Germany.

## **HARTZ REFORMS ALSO AIMED TO BOOST DEMAND FOR LABOUR**

The Hartz reforms had a sharp focus on increasing the labour supply, but also aimed to stimulate demand for labour. This was done mainly by reducing the regulation of the labour market. It was made easier for firms to use short-term employment contracts and to hire in staff from agencies. Exemptions from the Employment Protection Act were extended to include all firms

### **Unemployment insurance in Germany**

Unemployment insurance is compulsory in Germany. The replacement rate is 60 per cent of previous pay (67 per cent for those with children under 18) up to a monthly wage of EUR 6,200 in the western states and EUR 5,400 in the eastern states. Benefits are tax-free, and so the replacement rate after tax can be very high. Benefits are paid for a maximum of 6–12 months depending on duration of employment. Members are entitled to benefits for a maximum of six (12) months if they have worked for at least 12 (24) months. Unemployment insurance benefits for the short-term unemployed were not affected by the Hartz reforms.

Before the reforms, those aged 45–46 could receive benefits for up to 18 months, and the number of additional months of benefits increased with age, so that those aged 57 could receive benefits for up to 32 months, assuming that they had worked for at least 64 months over a seven-year period.

The Hartz reforms raised the age limit for a longer duration of benefits from 45 to 55 years, and the maximum benefit durations were shortened. For example, the maximum duration of benefits for those aged 57 was cut from 32 to 15 months. Benefit durations for the over-50s were extended again by a few months in 2008. Today, those aged 58 can receive unemployment insurance benefits for up to 24 months if they have worked at least 48 months over a five-year period.

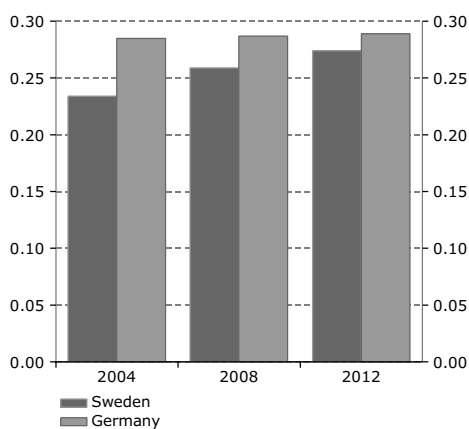
<sup>80</sup> The income-based benefit before the reform for the long-term unemployed (in other words after the period of unemployment insurance benefits) amounted to 53 per cent (57 per cent for those with children under 18). The benefit for the long-term unemployed was income-tested, however.

<sup>81</sup> The new benefit for the long-term unemployed and for those not eligible for unemployment insurance benefits (2016 levels) is EUR 404 per month for an adult living alone. An additional EUR 237–306 is payable per child depending on the child's age. Cohabiting adults are paid EUR 364 each per month. Costs for rent and heating are also covered. The benefit for the long-term unemployed is income-tested.

<sup>82</sup> According to statistics from the Federal Employment Agency, the number of people in receipt of unemployment benefits for the long-term unemployed who were in work climbed from 23 per cent in 2007 to 29 per cent in 2014. Monthly incomes of EUR 100–1,000 reduce the unemployment benefit by 80 per cent, and monthly incomes of EUR 1,000–1,200 reduce the benefit by 90 per cent.

**Diagram 135 Disposable income dispersion, post-tax**

Gini coefficient

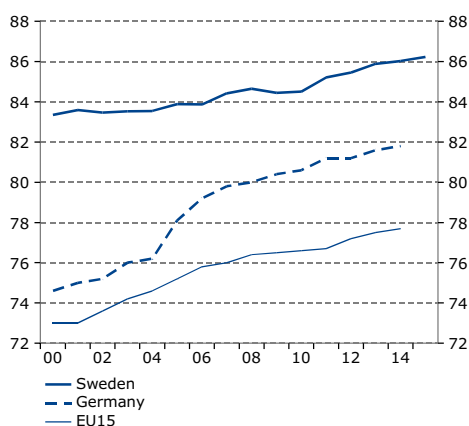


Note. The Gini coefficient takes values between 0 and 1, 0 representing total income equality and 1 total income inequality.

Source: OECD.

**Diagram 136 Labour force participation**

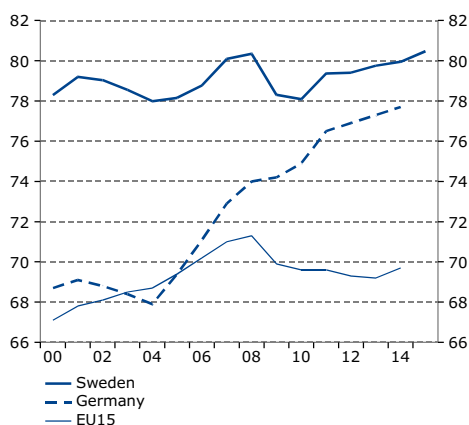
Per cent of population, age 20–64



Sources: Statistics Sweden and Eurostat.

**Diagram 137 Employment rate**

Per cent of population, age 20–64



Sources: Statistics Sweden and Eurostat.

with 5–10 employees, and the rules on dismissal were simplified. Employer contributions for the over-55s were reduced.

The reforms also meant reduced regulation of mini-jobs, a form of employment where monthly wages up to EUR 450 are exempt from most social security contributions.<sup>83</sup> It also became possible to have a mini-job alongside normal employment. To avoid high marginal effects, opportunities were also created for midi-jobs, where normal social security contributions and taxes were phased in for monthly wages of EUR 450–850. The deregulation of mini-jobs and midi-jobs effectively lowered the minimum wage, as the previous limit on how many hours could be worked was lifted.

Wage dispersion has increased in Germany since the reforms,<sup>84</sup> but the dispersion of disposable income has been more or less unchanged (see Diagram 135). Mini-jobs are more common in groups that have previously had relatively low participation rates, such as stay-at-home spouses and older people. Around 61 per cent of those with a mini-job in September 2015 were women, and 31 per cent were over the age of 55.<sup>85</sup> 12 per cent of those with a mini-job were born abroad, which roughly corresponds to the foreign-born share of the German population.

As a reaction to the increased wage dispersion in the lower part of the wage distribution, Germany has passed legislation introducing a national minimum wage in 2015–2016. This minimum wage of EUR 8.50 per hour is estimated to correspond to around half of the median wage and will affect around 15 per cent of all German employees and 23 per cent of those in the eastern states.<sup>86</sup> The minimum wage also applies to mini-jobs.

#### **SINCE THE HARTZ REFORMS, UNEMPLOYMENT HAS FALLEN SHARPLY AND THE EMPLOYMENT RATE HAS RISEN**

Labour force participation has increased in both Germany and Sweden since the mid-2000s (see Diagram 136). The participation rate is still higher in Sweden than in Germany, due mainly to higher participation among women in Sweden. The employment rate has risen further in Germany than in Sweden since

<sup>83</sup> Unemployed people taking a mini-job are still registered as unemployed and get to keep part of their unemployment benefit if the household's income is not too high.

<sup>84</sup> See Dustmann et al. (2014) for an analysis of wage dispersion in Germany since the 1990s.

<sup>85</sup> Minijob-Zentrale (2015).

<sup>86</sup> OECD (2014).

2005 but is still higher in Sweden (see Diagram 137). The number of hours worked per employee has fallen in Germany, because much of the increase in employment has consisted of part-time work.<sup>87</sup> In Sweden, hours worked per employee have trended neither up nor down (see Diagram 138). The number of hours worked per capita has moved similarly in the two countries (see Diagram 139).

The increased share of low-wage and part-time jobs in Germany has probably contributed to the relatively weak wage growth (see Diagram 140). Income dispersion has not, however, increased to any significant degree since 2004 (see Diagram 135). In Sweden, wage growth has been stronger, but income dispersion has increased somewhat (see Diagram 135).

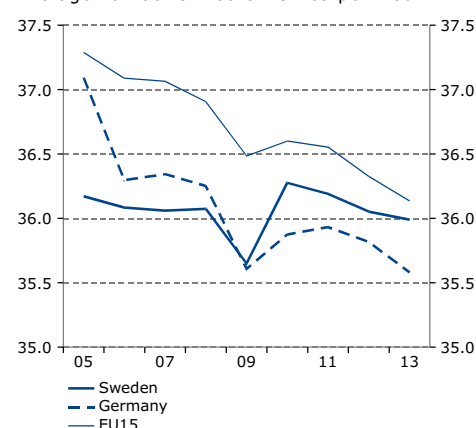
Unemployment has fallen sharply since 2005 in Germany but been largely unchanged in Sweden (see Diagram 141). The difference in unemployment between the native and foreign-born populations was approximately the same in Sweden and Germany in 2005 (see Diagram 142). Since then, the gap has narrowed substantially in Germany but widened in Sweden. Part of this may be due to higher net immigration relative to the size of the population in Sweden than in Germany, and to differences in the composition of the foreign-born population (see Diagram 143). Sweden has received a greater proportion of refugees and family reunification migrants than Germany, where – at least until recently – immigration has been mainly from other EU countries. This is probably an important reason why Germany has also managed to bring down unemployment among the foreign-born population, whereas in Sweden it has only fallen in the native population. The difference between the two countries in terms of unemployment in the native population is substantially smaller (see Diagram 144).

#### ARE THE IMPROVEMENTS IN GERMANY SINCE 2005 DUE TO THE REFORMS?

It is difficult to say how much of the German labour market's strong performance is down to the Hartz reforms. It is also difficult to identify reliably which elements of the Hartz reforms have had an impact, although this is an interesting question for decision-makers. The various parts of the reforms were designed to complement one another and were introduced at more or less

**Diagram 138 Hours worked per employed (at work), 15–74 years**

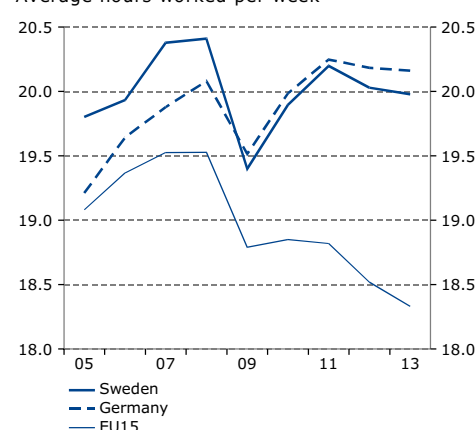
Average number of hours worked per week



Source: Eurostat.

**Diagram 139 Hours worked per person, 15–74 år**

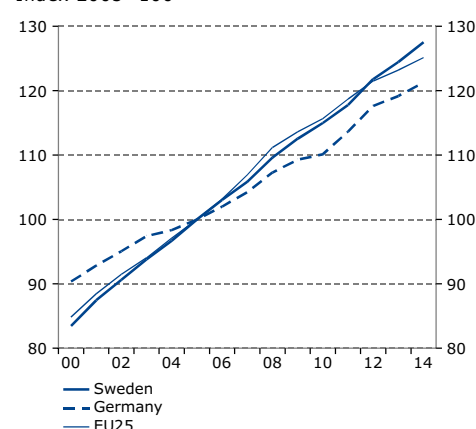
Average hours worked per week



Source: Eurostat.

**Diagram 140 Nominal wages, private sector**

Index 2005=100

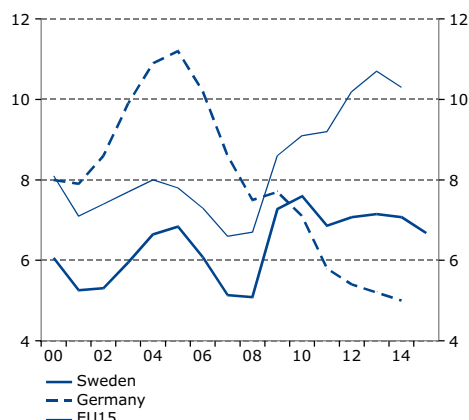


Source: Eurostat.

<sup>87</sup> In Germany, many women work part-time due to a shortage of childcare and short school days. Joint taxation and access to social security benefits through the husband's work are also reasons why many married women work part-time.

**Diagram 141 Unemployment**

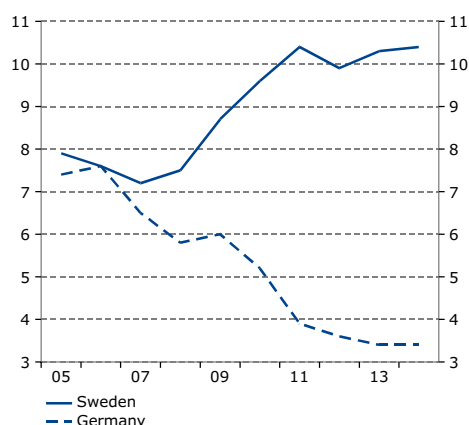
Per cent of labour force, age 20–64



Sources: Statistics Sweden and Eurostat.

**Diagram 142 Unemployment difference between foreign born and domestic born, 20–64 yrs**

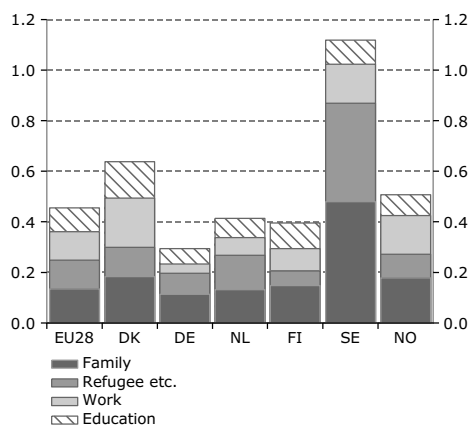
Percentage points



Source: Eurostat.

**Diagram 143 Residence permits awarded to persons born outside the EU, by cause, 2014**

Per cent of population



Source: Eurostat.

the same time, which makes it difficult to separate out the effects of different measures.

Empirical results from a number of studies suggest, however, that the Hartz reforms as a whole have led to significantly lower unemployment, shorter periods of unemployment and higher employment.<sup>88</sup> Flows from employment to unemployment decreased substantially following the reforms, especially among the older workers who were affected most by the tightening of unemployment insurance.<sup>89</sup> In addition, several studies have found that the reforms have had positive effects on matching efficiency.<sup>90</sup> Many parts of the Hartz reforms impacted on the reservation wage<sup>91</sup> and have probably also affected wage formation more generally. There is some evidence that the average wage has been affected negatively, that wage dispersion has increased, and that wages for those finding work after a period of unemployment have been lower as a result of the reforms.<sup>92</sup> It is also possible that the supply reforms, together with reduced regulation of the labour market, have lowered the level of undeclared work, although this is, by definition, difficult to measure.

The national minimum wage is still in the process of being phased in, and there are, as yet, no empirical studies of its effects. The introduction of the minimum wage is expected to lead to higher wages in the lower part of the wage distribution, reducing the risk of poverty and potentially stimulating the labour supply. At the same time, it will constrain demand for labour, and some researchers have argued that the introduction of the minimum wage will reduce job-finding rates among the inexperienced and the poorly educated and in some regions.<sup>93</sup>

Of course, developments in the German labour market have not been driven solely by the Hartz reforms. There are also studies<sup>94</sup> that posit other explanations for developments in the German labour market and wages since the mid-2000s, such as a long-term decline in unionisation and more decentralised wage formation, a relatively weak exchange rate, increased competi-

<sup>88</sup> See Krause and Uhling (2012), Krebs and Scheffel (2013), Launov and Waelde (2013), Dlugosz et al. (2014) and Stephan and Lecumbery (2015).

<sup>89</sup> See Dlugosz et al. (2014).

<sup>90</sup> See Fahr and Sunde (2009), Klinger and Rothe (2012) and Hertweck and Sigris (2013).

<sup>91</sup> The reservation wage is the lowest wage that an individual is willing to work for.

<sup>92</sup> See Arent and Nagli (2013), Gianelli et al. (2013) and Engbom et al. (2015).

<sup>93</sup> See, for example, Boll et al. (2015).

<sup>94</sup> See, for example, Burda and Hunt (2011), Akyol et al. (2013) and Dustmann et al. (2014).

tion from Eastern Europe, and the use of short-term work during the financial crisis. Other reforms, such as that of pensions, have probably also contributed to the German labour market's strong performance. Demographic developments, with a dwindling working-age population, may also have contributed to lower unemployment.

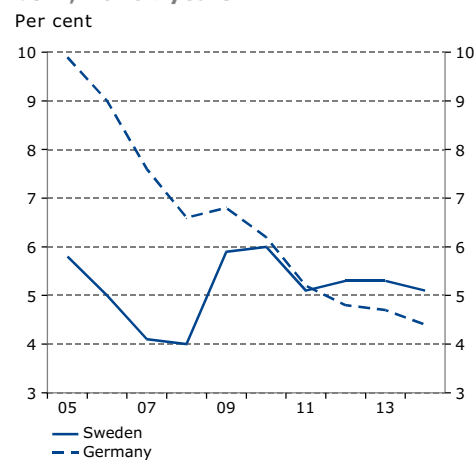
#### LABOUR SUPPLY REFORMS HAVE DOMINATED IN SWEDEN TOO

Sweden has introduced many reforms over the past decade that resemble the Hartz reforms in Germany.<sup>95</sup> Particular weight has been given to measures to stimulate the labour supply, although some measures have also affected demand for labour. Unemployment insurance has been tightened.<sup>96</sup> Together with the earned-income tax credit, this has increased the incentive to work. The reform of sickness insurance has led to an increased labour supply, but also more people registered as unemployed with the Swedish Public Employment Service.

Sweden's employers enjoy relatively high levels of flexibility through the use of short-term employment contracts and staffing agencies. Wage subsidies are also part of labour market policy (for example, the New Start and Entry Recruitment programmes) to boost demand for groups with a low job-finding rate. The RUT tax allowance for household services and reduced value-added tax on restaurant services are also intended to foster demand for labour with a weak attachment to the labour market. Reduced employer contributions for young and older workers have been introduced to support demand for these groups in the labour market.

The far-reaching reorganisation of the federal employment service in Germany is believed to have improved matching between the unemployed and vacancies. In Sweden, however, matching seems to have deteriorated.<sup>97</sup> A growing share of those registered as unemployed with the Public Employment Service are in groups with relatively low job-finding rates, such as recent immigrants, immigrants with limited education, and those who have been on long-term sick leave. This has affected how well

**Diagram 144 Unemployment, domestic born, 20–64 years**



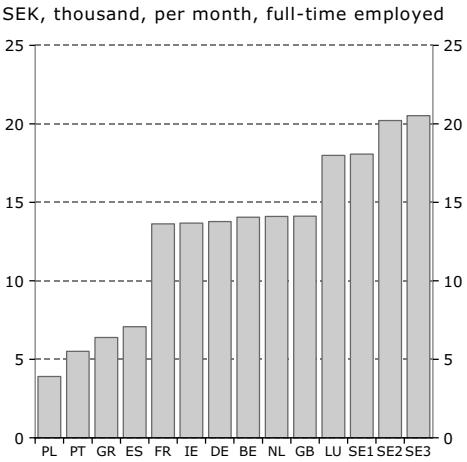
Source: Eurostat.

<sup>95</sup> See, for example, NIER (2011), NIER (2013a) and NIER (2015) for descriptions of Swedish reforms since 2007 and the NIER's assessment of their long-term effects.

<sup>96</sup> For example, the eligibility criteria for unemployment benefits have been raised, the replacement rate has been scaled down for the long-term unemployed, renewal of eligibility via participation in active labour market policy programmes has been withdrawn, and more qualifying days have been introduced.

<sup>97</sup> See, for example, NIER (2014).

**Diagram 145 National minimum wages in European countries, and collective bargaining-based minimum wages in Sweden**



Note. SE1: Local government employees, age 19+, no experience. SE2: Hotels and restaurants, age 20+, no experience. SE3: Retail, age 20+, no experience.

Sources: Eurostat and union web sites.

labour market policy has been implemented in Sweden. The Public Employment Service has been allocated more resources, but despite a change in its remit there has not been any major restructuring. It is also possible that the reform of unemployment insurance has had more of an impact in Germany because unemployment insurance is compulsory there. In Sweden, many of the unemployed are not members of any employment insurance scheme, and the proportion of those registered as unemployed with the Public Employment Service (and not on job creation schemes) who received benefits from unemployment insurance decreased from just over 70 per cent in the early 2000s to 41 per cent in 2013.<sup>98</sup>

Unlike in Germany, no reforms directly affecting minimum wages have been introduced in Sweden. Wage subsidies as part of labour market policy reduce wage costs for groups with a weak attachment to the labour market, but are time-limited and associated with administrative costs for employers. Wage subsidies in the form of active labour market policy programmes have probably not therefore had the same effects on demand for labour as generally lower wages. The earned-income tax credit and the tightening of unemployment benefits have probably had a restrictive effect on wages, but it is difficult to gauge the size of this effect.<sup>99</sup>

Collectively agreed minimum wages in Sweden are high by international standards at around SEK 20,000 per month, and the wage structure is compressed. In Germany, the new national minimum wage is equivalent to around SEK 14,000 per month for a full-time worker, and calculations suggest that this entails an increase for the very lowest paid. Minimum wages in the UK, Belgium, France and the Netherlands are around the same level as the new minimum wage in Germany. Of the European countries with a national minimum wage, only Luxembourg has one that is almost as high as collectively agreed minimum wages in Sweden (see Diagram 145). The high minimum wages in Sweden probably reduce employment among groups with low or uncertain productivity, such as non-Europeans and those with no more than basic education.<sup>100</sup>

<sup>98</sup> Swedish Public Employment Service (2014).

<sup>99</sup> The results in Bennmarker et al. (2014) suggest that nominal wages were approximately 2-4 per cent lower in 2009 than they would have been without the reforms. The NIER believes, however, that the short-term effects are probably smaller than the study indicates, see NIER (2013b), pages 107ff. The Swedish Labour Policy Council (2016) believes that the pay deals struck since 2007 have not taken much account of the real net wage growth due to the earned-income tax credit.

<sup>100</sup> See NIER (2014) and Lundborg and Skedinger (2014).



## **HARTZ REFORMS CONSIDERED A SUCCESS, BUT MANY ARE STILL CRITICAL**

In some respects, the German labour market has outperformed the Swedish labour market over the past decade, despite the two countries introducing many similar reforms. One important reason why the reforms have had positive effects in Germany is probably the combination of extensive supply reforms with reforms that have greatly stimulated demand for the type of labour where supply has increased the most. Of course, developments in the labour market are not driven solely by reforms.

The labour force participation rate and the employment rate were lower in Germany at the beginning of the 2000s, providing more room for improvement. Demographic developments and immigration have also differed between Germany and Sweden, which probably also helps explain the differences in performance. The working-age population (20–64 years) has increased in Sweden over the past decade, but decreased slightly in Germany. The additions to the labour force in Sweden are to a great extent refugees and family reunification migrants, which is an important reason why unemployment in the foreign-born population is high in Sweden. The Swedish Labour Policy Council (2016) shows, however, that the relative employment rate among poorly qualified immigrants improved substantially in Germany from 1994 to 2012 but deteriorated in Sweden. A higher share of non-European refugees poorly equipped to meet the needs of the labour market will make unemployment a continuing major challenge for Sweden in the future. It is unlikely that the unemployment problems facing the poorly qualified can be resolved solely through training initiatives. There will probably be a need for a greater dispersion of labour costs to boost employment in groups with limited qualifications.

The German experience shows that increased wage dispersion probably increases employment but does not necessarily bring a marked rise in income dispersion. One reason for this is believed to be the relatively extensive social security system in Germany and especially the payments for those on low wages.

The Hartz reforms are considered to have been a success in terms of their macroeconomic effects in Germany, but many are still critical of them. German unemployment has fallen as a result of the reforms, but at the cost of increased insecurity in the event of unemployment. The duration of benefits in the unemployment insurance system for older people was therefore increased again in connection with the financial crisis. The German example demonstrates the importance of awareness of

conflicting objectives when implementing long-term sustainable reforms.

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# Tables and graphs

Data for additional variable and longer time series can be found on the NIER's website at [www.konj.se/forecastdata](http://www.konj.se/forecastdata).

## CONTENTS

The global economy 2016–2017 .....	26
Table A1 Global output.....	26
Table A2 Global inflation.....	27
Table A3 Selected indicators for the euro area .....	27
Table A4 Selected indicators for the US.....	28
The Swedish Economy 2016–2017 .....	29
Table A5 GDP by expenditure.....	29
Table A6 Household income, consumption expenditure and saving.....	30
Table A7 Current account and net lending .....	30
Table A8 GNI .....	31
Table A9 Production .....	31
Table A10 Hours worked .....	31
Table A11 Productivity .....	32
Table A12 The labour market.....	32
Table A13 Hourly earnings according to the short-term earnings statistics .....	32
Table A14 Hourly earnings and labour costs in the business sector according to the national accounts.....	33
Table A15 Supply and use prices.....	33
Table A16 Business sector prices, costs and profits.....	34
Table A17 Consumer prices.....	34
Macroeconomic scenario and economic policy 2016–2020 .....	35
Table A18 Scenario for the global economy .....	35
Table A19 Resource utilisation .....	35
Table A20 Scenario for the Swedish economy.....	36
Table A21 GDP and demand .....	36
Table A22 Interest and exchange rates.....	37
Public finances 2016–2020.....	38
Table A23 General government finances .....	38
Table A24 Central government finances.....	39
Table A25 Old-age pension system finances.....	39
Table A26 Local government finances.....	40
Table A27 General government revenue .....	40
Table A28 General government expenditure .....	41
Table A29 Transfers from general government to households.....	41
Table A30 Income index, balance index, income pensions and balance ratio.....	41
Table A31 Central government budget balance and debt.....	42
Table A32 Central government expenditure ceiling.....	42
Table A33 Indicators for the surplus target .....	42

## The global economy 2016–2017

**Table A1 Global output**

Per cent of global GDP at purchasing power parity and percentage points, respectively, constant prices

	Weight 2014	2011	2012	2013	2014	2015	2016	2017
World		4.2	3.4	3.3	3.4	3.1	3.2	3.5
OECD	45.8	2.0	1.3	1.2	1.9	2.0	2.0	2.2
US	15.9	1.6	2.2	1.5	2.4	2.4	2.1	2.4
Euro area	11.8	1.6	−0.9	−0.3	0.9	1.5	1.6	1.8
Germany	3.4	3.7	0.6	0.4	1.6	1.4	1.6	1.7
France	2.4	2.1	0.2	0.7	0.2	1.1	1.4	1.6
Italy	2.0	0.7	−2.9	−1.8	−0.3	0.6	1.0	1.3
Spain	1.4	−1.0	−2.6	−1.7	1.4	3.2	3.0	2.6
Finland	0.2	2.6	−1.4	−0.8	−0.7	0.4	0.9	1.3
Japan	4.4	−0.4	1.7	1.4	−0.1	0.5	0.7	0.6
UK	2.4	2.0	1.2	2.2	2.9	2.2	2.1	2.1
Sweden	0.4	2.7	0.1	1.2	2.4	3.8	3.3	2.6
Norway	0.3	1.1	2.5	1.1	2.2	1.7	1.0	1.9
Denmark	0.2	1.2	−0.1	−0.2	1.3	1.2	1.2	1.9
Emerging markets <sup>1</sup>	54.2	6.3	5.4	5.1	4.7	4.1	4.1	4.6
China	16.6	9.9	7.7	7.7	7.3	6.9	6.3	5.8
India	6.8	7.6	4.8	6.4	7.2	7.3	7.5	7.3
Brazil	3.0	3.9	1.9	3.0	0.1	−3.9	−3.5	1.0
<b>GDP per capita</b>								
US		0.8	1.5	0.7	1.7	1.7	1.3	1.7
Euro area		1.3	−1.1	−0.5	0.6	1.2	1.3	1.5
Japan		−0.3	2.0	1.6	0.1	0.8	1.0	1.0
<b>Market growth</b>								
World <sup>2</sup>		6.4	1.8	2.6	3.1	2.4	2.6	3.9

<sup>1</sup> Emerging markets are defined here as countries that are not members of the OECD. <sup>2</sup> World market growth refers to total import demand in the countries to which Sweden exports, each country weighted by its share of Swedish goods exports.

Note. The figures for GDP are the calendar-adjusted change expressed in constant prices. The aggregates are calculated using time-varying purchasing power parity GDP weights from the IMF.

Sources: IMF, OECD, Eurostat, national sources and NIER.

**Table A2 Global inflation**

Percentage change in CPI

	2010	2011	2012	2013	2014	2015	2016	2017
OECD	1.9	2.9	2.3	1.6	1.7	0.6	1.1	2.1
US	1.7	3.2	2.1	1.5	1.6	0.1	1.0	2.0
Euro area	1.6	2.7	2.5	1.3	0.4	0.0	0.3	1.4
Germany	1.1	2.5	2.1	1.6	0.8	0.1	0.3	1.6
France	1.7	2.3	2.2	1.0	0.6	0.1	0.3	1.3
Italy	1.6	2.9	3.3	1.2	0.2	0.1	0.2	1.2
Spain	2.0	3.0	2.4	1.5	-0.2	-0.6	0.0	1.3
Finland	1.7	3.3	3.2	2.2	1.2	-0.2	0.1	1.3
Japan	-0.7	-0.3	0.0	0.4	2.7	0.8	0.2	1.8
UK	3.3	4.5	2.8	2.6	1.5	0.0	0.7	1.8
Sweden	1.9	1.4	0.9	0.4	0.2	0.7	0.9	1.2
Norway	2.3	1.3	0.4	2.0	1.9	2.0	2.2	2.2
Denmark	2.2	2.7	2.4	0.5	0.4	0.2	0.5	1.7
Emerging markets <sup>1</sup>								
China	3.1	5.6	2.6	2.6	2.0	1.4	2.1	2.7
India	12.0	8.9	9.3	10.9	6.4	5.9	5.2	5.1
Brazil	5.1	6.6	5.4	6.2	6.3	9.0	8.3	6.2

<sup>1</sup> Emerging markets are defined here as countries that are not members of the OECD.

Note. The CPI values for the EU countries and Norway refer to harmonised indices of consumer prices (HICP). The OECD aggregate includes national CPI series only. The aggregate for the euro area is weighted using consumption weights from Eurostat and the OECD aggregate using consumption weights from the OECD.

Sources: IMF, OECD, Eurostat, national sources and NIER.

**Table A3 Selected indicators for the euro area**

EUR billion, current prices, and percentage change, constant prices, respectively

	Level 2014	2011	2012	2013	2014	2015	2016	2017
Household consumption expenditure	5 507	-0.1	-1.3	-0.6	0.8	1.6	1.4	1.4
General government consumption expenditure	2 089	-0.1	-0.2	0.2	0.8	1.3	1.3	0.9
Gross fixed capital formation	1 943	1.5	-3.1	-2.5	1.4	2.5	3.3	3.5
Stockbuilding <sup>1</sup>	-11	0.5	-1.0	0.1	0.0	-0.1	0.2	0.0
Exports	4 345	6.5	2.6	2.1	4.1	4.9	2.9	3.8
Imports	3 978	4.2	-1.0	1.3	4.6	5.7	3.8	3.9
<b>GDP</b>	<b>9 895</b>	<b>1.6</b>	<b>-0.9</b>	<b>-0.3</b>	<b>0.9</b>	<b>1.5</b>	<b>1.6</b>	<b>1.8</b>
HICP <sup>2</sup>		2.7	2.5	1.3	0.4	0.0	0.3	1.4
Unemployment <sup>3</sup>		10.1	11.3	12.0	11.6	10.9	10.2	9.9
Policy rate <sup>4</sup>		1.00	0.75	0.25	0.05	0.05	0.00	0.00
Interest rate, ten-year government bond <sup>5</sup>		2.6	1.6	1.6	1.2	0.5	0.5	1.4
USD/EUR <sup>6</sup>		1.39	1.29	1.33	1.33	1.11	1.08	1.10

<sup>1</sup> Change in per cent of GDP the previous year. <sup>2</sup> Percentage change. <sup>3</sup> Per cent of labour force. <sup>4</sup> Refi rate level, per cent, at year-end. <sup>5</sup> Level, per cent, Germany. <sup>6</sup> Level.

Note. The euro area here refers to Euro12, representing approximately 98 per cent of the total euro area economy.

Sources: ECB, Eurostat and NIER.

**Table A4 Selected indicators for the US**

USD billion, current prices, and percentage change, constant prices, respectively

	Level 2014	2011	2012	2013	2014	2015	2016	2017
Household consumption expenditure	11 866	2.3	1.5	1.7	2.7	3.1	2.5	2.3
General government consumption expenditure	2 556	-2.7	-0.9	-2.5	-0.5	0.4	0.8	1.2
Gross fixed capital formation	3 379	3.7	6.4	2.5	4.1	3.7	3.0	4.4
Stockbuilding <sup>1</sup>	77	-0.1	0.1	0.0	0.0	0.2	-0.1	0.0
Exports	2 342	6.9	3.4	2.8	3.4	1.1	2.2	4.7
Imports	2 872	5.5	2.2	1.1	3.8	4.9	3.1	5.4
<b>GDP</b>	<b>17 348</b>	<b>1.6</b>	<b>2.2</b>	<b>1.5</b>	<b>2.4</b>	<b>2.4</b>	<b>2.1</b>	<b>2.4</b>
CPI <sup>2</sup>		3.2	2.1	1.5	1.6	0.1	1.0	2.0
Unemployment <sup>3</sup>		8.9	8.1	7.4	6.2	5.3	4.8	4.7
Policy rate <sup>4</sup>		0.25	0.25	0.25	0.25	0.50	1.00	1.75
Interest rate, ten-year government bond <sup>5</sup>		2.8	1.8	2.4	2.5	2.1	2.0	2.9
USD/EUR <sup>6</sup>		1.39	1.29	1.33	1.33	1.11	1.08	1.10

<sup>1</sup> Change in per cent of GDP the previous year. <sup>2</sup> Percentage change. <sup>3</sup> Per cent of labour force. <sup>4</sup> Federal Funds target rate level, per cent, at year-end. <sup>5</sup> Level, per cent. <sup>6</sup> Level.

Sources: US Bureau of Economic Analysis, US Bureau of Labor Statistics, Federal Reserve and NIER.

# The Swedish Economy 2016–2017

**Table A5 GDP by expenditure**

SEK billion, current prices, and percentage change, constant prices, respectively

	Level 2014	2011	2012	2013	2014	2015	2016	2017
Household consumption expenditure	1 812	1.9	0.8	1.9	2.2	2.6	2.7	2.4
Goods	818	−0.2	1.1	0.8	3.0	3.5	2.9	1.8
Services excl. housing	580	4.5	0.2	3.1	2.6	3.0	2.9	3.0
Housing	352	2.1	0.4	1.3	2.2	2.7	2.4	2.7
General government consumption expenditure	1 031	0.8	1.1	1.3	1.3	2.5	4.1	2.2
Central government	278	0.7	2.5	3.6	1.0	2.6	3.1	1.1
Local government	753	0.9	0.6	0.4	1.5	2.5	4.5	2.6
Gross fixed capital formation	922	5.7	−0.2	0.6	7.5	7.3	4.3	3.8
Business sector	753	7.1	−0.7	0.7	8.8	8.5	4.1	3.4
Industry	179	8.8	−3.1	1.8	3.9	6.4	0.0	3.0
Other goods producers	102	−0.2	4.7	1.4	4.1	4.4	4.9	1.1
Service producers <sup>1</sup>	312	8.1	4.8	−0.3	8.2	6.9	4.8	3.7
Housing	160	8.0	−11.8	0.9	19.8	16.7	6.5	4.6
General government	164	−0.2	1.7	−0.3	2.4	1.7	5.8	5.5
<i>Domestic demand excl. stockbuilding</i>	3 765	2.5	0.6	1.4	3.2	3.7	3.5	2.7
Stockbuilding <sup>2</sup>	10	0.5	−1.1	0.2	0.1	0.1	0.0	0.0
<i>Total domestic demand</i>	3 775	3.0	−0.6	1.6	3.4	3.8	3.5	2.6
Exports	1 744	6.1	1.0	−0.8	3.5	5.9	4.2	3.2
Exports of goods	1 226	6.8	0.3	−2.9	2.3	3.3	4.0	3.1
Processed goods	953	8.3	−2.9	−0.9	1.1	3.7	4.2	3.3
Raw materials	273	1.4	12.2	−9.4	6.6	1.7	3.3	2.5
Exports of services	517	4.0	3.0	5.0	6.3	12.2	4.5	3.4
<i>Total demand</i>	5 519	4.0	−0.1	0.8	3.4	4.5	3.7	2.8
Imports	1 600	7.3	0.5	−0.1	6.3	5.4	4.1	4.0
Imports of goods	1 112	8.7	−0.8	−1.7	4.6	5.3	4.6	3.7
Processed goods	788	12.2	−2.9	−0.1	4.5	6.2	6.0	4.0
Raw materials	324	−0.2	4.3	−5.2	4.9	3.3	1.2	2.8
Imports of services	489	3.7	4.3	4.1	10.3	5.5	2.8	4.9
<i>Net exports<sup>2</sup></i>	143	−0.2	0.3	−0.3	−0.9	0.4	0.2	−0.2
<b>GDP</b>	<b>3 918</b>	<b>2.7</b>	<b>−0.3</b>	<b>1.2</b>	<b>2.3</b>	<b>4.1</b>	<b>3.5</b>	<b>2.3</b>
GDP per capita <sup>3</sup>	404	1.9	−1.0	0.4	1.3	3.0	2.3	0.9

<sup>1</sup> Excluding housing. Housing is, however, included in the business sector total. <sup>2</sup> Change in per cent of GDP the previous year.

<sup>3</sup> SEK, thousand, current prices, and percentage change, constant prices, respectively.

Sources: Statistics Sweden and NIER.

**Table A6 Household income, consumption expenditure and saving**

SEK billion, current prices, and percentage change, respectively

	Level 2014	2014	2015	2016	2017	2018	2019	2020
Total earnings, adjusted for external transactions	1 592	3.7	4.3	5.3	5.1	4.7	4.2	3.8
Hourly earnings (according to national accounts) <sup>1</sup>		1.7	3.3	3.2	3.4	3.6	3.6	3.4
Hours worked <sup>1,2</sup>		1.9	1.2	2.1	1.7	1.1	0.6	0.4
Transfers from government sector, net	579	1.6	2.0	3.3	4.7	5.2	4.6	4.3
Property income, net	211	5.6	12.1	6.6	0.3	14.0	-0.5	-0.4
Other income, net	269	4.6	5.4	4.3	4.0	5.7	5.6	5.6
<b>Income before taxes<sup>3</sup></b>	<b>2 651</b>	<b>3.5</b>	<b>4.6</b>	<b>4.9</b>	<b>4.5</b>	<b>5.7</b>	<b>4.0</b>	<b>3.7</b>
Direct taxes <sup>4</sup>	688	5.2	6.2	7.2	8.2	10.0	7.7	6.5
<b>Disposable income</b>	<b>1 963</b>	<b>2.9</b>	<b>4.0</b>	<b>4.1</b>	<b>3.1</b>	<b>4.0</b>	<b>2.5</b>	<b>2.5</b>
Consumer prices <sup>5</sup>		0.7	1.0	0.9	1.4	2.0	2.4	2.2
<b>Real disposable income</b>	<b>1 963</b>	<b>2.2</b>	<b>3.0</b>	<b>3.1</b>	<b>1.7</b>	<b>2.0</b>	<b>0.1</b>	<b>0.3</b>
Per capita <sup>6</sup>	202	1.1	1.9	1.9	0.3	0.4	-1.4	-1.1
<b>Consumption expenditure</b>	<b>1 812</b>	<b>2.2</b>	<b>2.6</b>	<b>2.7</b>	<b>2.4</b>	<b>2.5</b>	<b>2.4</b>	<b>2.5</b>
Saving <sup>7</sup>	325	15.2	16.0	16.1	15.7	15.1	13.1	11.1
Own saving <sup>7</sup>	151	7.7	8.0	8.3	7.7	7.2	5.1	3.1
Net lending <sup>7</sup>	276	12.9	13.3	13.6	13.1	12.5	10.5	8.5

<sup>1</sup> Calendar-adjusted. <sup>2</sup> For employees. <sup>3</sup> Growth in income before taxes is calculated as a weighted sum of the growth rates for total earnings, transfers, capital income and other income. <sup>4</sup> Change in per cent of income before taxes, with reverse sign.

<sup>5</sup> Implicit price index for household consumption expenditure. <sup>6</sup> SEK thousand. <sup>7</sup> SEK billion, current prices, and per cent of disposable income, respectively. Own saving excludes occupational and premium pensions.

Sources: Statistics Sweden and NIER.

**Table A7 Current account and net lending**

SEK billion, current prices, and per cent, respectively

	2010	2011	2012	2013	2014	2015	2016	2017
Net exports, goods	150	125	138	122	115	119	122	116
Net exports, services	42	47	44	48	29	58	70	65
Earnings, net	19	17	18	17	18	16	17	17
Investment income, net	78	85	96	78	64	77	124	126
Transfers etc., net	-55	-53	-56	-59	-61	-66	-53	-65
<b>Current account balance</b>	<b>234</b>	<b>221</b>	<b>239</b>	<b>207</b>	<b>164</b>	<b>205</b>	<b>280</b>	<b>259</b>
<i>Per cent of GDP</i>	6.7	6.0	6.5	5.5	4.2	4.9	6.4	5.7
Capital transfers	-5	-6	-6	-9	-4	-8	-5	-6
<b>Net lending</b>	<b>230</b>	<b>215</b>	<b>233</b>	<b>198</b>	<b>160</b>	<b>197</b>	<b>275</b>	<b>253</b>
<i>Per cent of GDP</i>	6.5	5.9	6.3	5.2	4.1	4.7	6.3	5.6

Sources: Statistics Sweden and NIER.



**Table A8 GNI**

SEK billion, current prices, thousands, ratio and annual percentage change, respectively

	Level 2014	2011	2012	2013	2014	2015	2016	2017
GNI	4 006	3.9	1.0	1.8	3.5	6.1	6.1	4.1
Deflator, domestic use		1.7	1.1	1.1	1.5	1.5	1.5	1.9
<b>Real GNI</b>		<b>2.2</b>	<b>-0.1</b>	<b>0.6</b>	<b>2.0</b>	<b>4.5</b>	<b>4.6</b>	<b>2.1</b>
Population <sup>1</sup>	9 696	0.8	0.7	0.9	1.0	1.1	1.2	1.4
<b>Real GNI per capita<sup>2</sup></b>	<b>413</b>	<b>1.5</b>	<b>-0.8</b>	<b>-0.2</b>	<b>1.0</b>	<b>3.4</b>	<b>3.4</b>	<b>0.7</b>

<sup>1</sup>Thousands. <sup>2</sup>SEK thousand.

Sources: Statistics Sweden and NIER.

**Table A9 Production**

SEK billion, current prices, and percentage change, constant prices, respectively, calendar-adjusted values

	Level 2014	2011	2012	2013	2014	2015	2016	2017
Goods producers	953	2.4	-3.7	-1.8	2.4	5.1	3.7	3.0
Of which: Industry	588	4.1	-6.5	-1.1	-0.6	3.7	3.9	3.6
Construction	210	-2.2	-5.3	-3.8	12.3	10.8	4.3	2.8
Service producers	1 760	4.8	2.2	3.9	3.0	4.1	3.4	2.6
Business sector	2 713	3.9	0.0	1.8	2.8	4.5	3.5	2.7
General government	718	-0.5	1.4	-0.3	0.8	0.8	2.9	2.3
<b>GDP at basic prices<sup>1</sup></b>	<b>3 479</b>	<b>3.0</b>	<b>0.3</b>	<b>1.3</b>	<b>2.4</b>	<b>3.6</b>	<b>3.3</b>	<b>2.6</b>
Taxes/subsidies on products	449	0.6	-1.3	0.5	2.7	5.3	3.0	2.0
GDP at market prices	3 928	2.7	0.1	1.2	2.4	3.8	3.3	2.6

<sup>1</sup>Including production in non-profit institutions serving households.

Note. Production refers here to value added.

Sources: Statistics Sweden and NIER.

**Table A10 Hours worked**

Million hours and percentage change, respectively, calendar-adjusted values

	Level 2014	2011	2012	2013	2014	2015	2016	2017
Goods producers	1 922	2.4	-0.7	-0.6	0.5	0.3	0.5	0.5
Of which: Industry	1 020	1.5	-3.1	-2.4	-1.3	-0.9	-0.2	0.0
Construction	553	2.6	2.8	0.7	1.1	2.1	1.8	1.4
Services producers	3 522	2.7	0.8	0.8	2.3	1.5	2.3	1.8
Business sector	5 444	2.6	0.3	0.3	1.7	1.1	1.7	1.4
General government	2 066	0.4	1.6	0.6	2.2	0.6	2.9	2.5
<b>Total economy<sup>1</sup></b>	<b>7 677</b>	<b>2.0</b>	<b>0.7</b>	<b>0.4</b>	<b>1.8</b>	<b>1.0</b>	<b>2.0</b>	<b>1.7</b>

<sup>1</sup>Including production in non-profit institutions serving households.

Sources: Statistics Sweden and NIER.

**Table A11 Productivity**

SEK per hour, basic prices, and percentage change, constant prices, respectively, calendar-adjusted values

	Level 2014	2011	2012	2013	2014	2015	2016	2017
Goods producers	496	-0.1	-3.0	-1.2	1.9	4.8	3.2	2.5
Of which: Industry	577	2.6	-3.5	1.4	0.7	4.6	4.1	3.5
Construction	380	-4.7	-7.9	-4.4	11.1	8.5	2.5	1.4
Services producers	500	2.1	1.4	3.0	0.7	2.5	1.0	0.7
Business sector	498	1.2	-0.3	1.5	1.1	3.3	1.8	1.4
General government	348	-0.9	-0.2	-1.0	-1.3	0.2	0.0	-0.2
<b>Total economy<sup>1</sup></b>	<b>453</b>	<b>0.9</b>	<b>-0.4</b>	<b>0.9</b>	<b>0.5</b>	<b>2.6</b>	<b>1.3</b>	<b>0.9</b>

<sup>1</sup> Including production in non-profit institutions serving households.

Sources: Statistics Sweden and NIER.

**Table A12 The labour market**

Thousands of people and percentage change, respectively, unless otherwise indicated

	Level 2014	2011	2012	2013	2014	2015	2016	2017
Hours worked <sup>1</sup>	7 677	2.0	0.7	0.4	1.8	1.0	2.0	1.7
Average hours worked for employed <sup>2</sup>	30,9	-0.3	0.0	-0.6	0.4	-0.4	0.3	0.3
Number of employed	4 772	2.3	0.7	1.0	1.4	1.4	1.7	1.4
Employment rate <sup>3</sup>		65.4	65.5	65.7	66.2	66.7	67.2	67.4
Labour force	5 183	1.4	0.9	1.1	1.3	0.8	1.0	0.9
Labour force participation rate <sup>4</sup>		70.9	71.1	71.5	71.9	72.0	72.0	71.9
Unemployment <sup>5</sup>	411	7.8	8.0	8.0	7.9	7.4	6.7	6.3
Population aged 15–74	7 206	0.7	0.6	0.6	0.7	0.7	0.9	1.1

<sup>1</sup> Million hours, calendar-adjusted. <sup>2</sup> Hours per week, calendar-adjusted. <sup>3</sup> Number of employed in per cent of the population aged 15–74. <sup>4</sup> Number of people in the labour force in per cent of the population aged 15–74. <sup>5</sup> Per cent of labour force.

Sources: Statistics Sweden, Swedish Public Employment Service and NIER.

**Table A13 Hourly earnings according to the short-term earnings statistics**

Per cent and percentage change, respectively

	Weight 2014	2011	2012	2013	2014	2015	2016	2017
Business sector	68	2.5	3.2	2.3	2.9	2.4	3.1	3.4
Industry	16	2.5	3.9	2.0	2.5	2.5	3.1	3.4
Construction	6	3.1	2.6	3.0	3.1	1.7	3.1	3.4
Services	46	2.4	3.0	2.3	2.9	2.4	3.2	3.4
Local government	25	2.3	2.7	2.9	2.8	2.9	3.3	3.4
Central government	6	1.9	2.1	2.6	2.3	2.5	2.9	3.2
<b>Total</b>	<b>100</b>	<b>2.4</b>	<b>3.0</b>	<b>2.5</b>	<b>2.8</b>	<b>2.5</b>	<b>3.2</b>	<b>3.4</b>
Real hourly earnings (CPI) <sup>1</sup>		-0.5	2.1	2.5	3.0	2.5	2.4	2.2
Real hourly earnings (CPIF) <sup>2</sup>		1.0	2.0	1.6	2.3	1.6	1.9	1.9

<sup>1</sup> Deflated by the CPI. <sup>2</sup> Deflated by the CPI with constant mortgage rates (CPIF).

Sources: National Mediation Office, Statistics Sweden and NIER.

**Table A14 Hourly earnings and labour costs in the business sector according to the national accounts**

Per cent and percentage change, respectively, calendar-adjusted values

	Level 2014	2011	2012	2013	2014	2015	2016	2017
Hourly earnings	223	3.3	3.0	1.7	1.8	3.1	3.1	3.4
Employers' social contributions <sup>1</sup> (per cent of earnings)		40.6	41.0	41.4	41.4	43.1	43.7	43.9
Hourly labour costs <sup>2</sup>	316	3.3	3.4	2.0	1.9	4.4	3.5	3.6
Productivity <sup>3</sup>		0.7	-0.6	1.2	1.0	3.0	1.7	1.4
Unit labour costs		2.6	4.0	0.8	0.9	1.4	1.8	2.2

<sup>1</sup> Employers' social contributions and payroll taxes. <sup>2</sup> Earnings and employers' social contributions. <sup>3</sup> Employees.

Sources: Statistics Sweden and NIER.

**Table A15 Supply and use prices**

Per cent and percentage change, respectively

	Weight 2014	2011	2012	2013	2014	2015	2016	2017
GDP	71.0	1.2	1.1	1.1	1.6	1.9	1.5	1.8
General government <sup>1,2</sup>	13.8	3.6	3.2	3.6	2.9	3.1	2.4	3.4
Business sector <sup>2</sup>	49.0	0.5	0.5	0.4	1.5	1.8	1.2	1.3
Taxes, net	8.1	1.4	0.9	0.8	0.2	0.5	2.0	2.0
Imports	29.0	-0.2	-1.1	-2.8	1.7	0.9	-2.2	0.5
Processed goods	14.3	-3.7	-2.8	-3.7	2.2	3.9	-0.6	-0.2
Raw materials	5.9	9.2	0.2	-3.6	-1.6	-12.2	-10.0	3.6
Services	8.9	0.0	0.9	-0.4	3.1	4.4	-1.0	0.0
<b>Supply/use<sup>3</sup></b>	<b>100.0</b>	<b>0.8</b>	<b>0.4</b>	<b>-0.1</b>	<b>1.6</b>	<b>1.6</b>	<b>0.4</b>	<b>1.4</b>
General government consumption expenditure	18.7	3.0	2.6	2.6	2.5	2.4	2.7	3.5
Household consumption expenditure	32.8	1.7	0.5	0.7	0.7	1.0	0.9	1.4
Gross fixed capital formation	16.7	0.3	0.8	0.3	1.8	1.8	0.8	1.2
Exports	31.6	-1.0	-1.0	-2.5	2.0	1.7	-1.7	0.3
Processed goods	17.3	-3.2	-1.2	-3.3	2.8	3.8	-0.6	-0.1
Raw materials	4.9	5.2	-3.1	-2.7	-0.3	-8.0	-8.6	2.6
Services	9.4	0.5	0.9	-0.9	1.9	2.7	-0.8	0.1

<sup>1</sup> Including production in non-profit institutions serving households. <sup>2</sup> Value added price calculated at basic prices. <sup>3</sup> Including stockbuilding.

Sources: Statistics Sweden and NIER.

**Table A16 Business sector prices, costs and profits**

SEK billion, percentage change and per cent, respectively

	Level 2014	2011	2012	2013	2014	2015	2016	2017
Value added, constant prices <sup>1</sup>		3.9	-0.4	1.8	2.6	4.7	3.7	2.5
Value-added deflator		0.5	0.5	0.4	1.5	1.8	1.2	1.3
Value added, current prices <sup>2</sup>	2 711	4.5	0.1	2.1	4.3	6.4	5.1	3.8
Hours worked, employees		3.2	-0.3	0.6	1.5	2.1	2.4	0.7
Hourly labour costs <sup>3</sup>	318	3.3	4.3	2.0	2.2	3.7	2.9	4.2
Total labour costs <sup>4</sup>	1 584	6.6	4.0	2.6	3.7	5.9	5.4	5.0
Gross profit	1 127	1.9	-4.9	1.4	5.1	7.0	4.7	2.2
<b>Profit share</b>		<b>43.7</b>	<b>41.5</b>	<b>41.2</b>	<b>41.6</b>	<b>41.8</b>	<b>41.7</b>	<b>41.0</b>
Adjusted profit share <sup>5</sup>		36.0	33.9	33.7	34.3	35.1	35.0	34.4

<sup>1</sup> Calculated at basic prices. <sup>2</sup> Calculated at factor prices. <sup>3</sup> SEK. <sup>4</sup> Including wage-related other taxes on production for employees.  
<sup>5</sup> Excluding one- and two-family houses and secondary homes, and adjusted for the number of hours worked by the self-employed.

Sources: Statistics Sweden and NIER.

**Table A17 Consumer prices**

Per cent and percentage change, respectively

	Weight 2016	2011	2012	2013	2014	2015	2016	2017
<b>CPI</b>	<b>100</b>	<b>3.0</b>	<b>0.9</b>	<b>0.0</b>	<b>-0.2</b>	<b>0.0</b>	<b>0.8</b>	<b>1.2</b>
Mortgage interest costs, interest rate		36.6	-0.5	-14.7	-11.5	-20.8	-14.8	-6.0
<b>CPIF</b>	<b>100</b>	<b>1.4</b>	<b>1.0</b>	<b>0.9</b>	<b>0.5</b>	<b>0.9</b>	<b>1.3</b>	<b>1.5</b>
Goods	43	-0.1	-0.3	0.2	-0.1	1.2	0.5	0.6
Services	29	1.3	1.7	0.8	0.5	1.1	2.0	2.2
Housing excl. mortgage interest costs	16	2.3	2.6	2.0	1.7	1.5	2.0	1.6
Energy	8	5.2	0.2	-1.8	-2.5	-4.9	-1.6	0.2
Mortgage interest costs, capital stock	4	6.5	5.9	5.2	5.0	5.4	6.0	6.3
<b>CPIF excl. energy</b>	<b>92</b>	<b>1.0</b>	<b>1.0</b>	<b>1.1</b>	<b>0.7</b>	<b>1.4</b>	<b>1.5</b>	<b>1.6</b>
HICP		1.4	0.9	0.4	0.2	0.7	0.9	1.2
Crude oil (Brent) <sup>1</sup>		110.9	111.8	108.8	99.6	53.5	40.3	45.6

<sup>1</sup> Dollars per barrel, annual average.

Note. The CPI's mortgage interest cost component is the product of interest rate and capital stock.

Sources: Intercontinental Exchange, Statistics Sweden and NIER.

## Macroeconomic scenario and economic policy 2016–2020

**Table A18 Scenario for the global economy**

Percentage change and per cent, respectively

	2013	2014	2015	2016	2017	2018	2019	2020
GDP, OECD	1.2	1.9	2.0	2.0	2.2	2.1	2.1	2.0
GDP, euro area	−0.3	0.9	1.5	1.6	1.8	1.6	1.6	1.6
GDP, US	1.5	2.4	2.4	2.1	2.4	2.3	2.2	2.1
GDP, emerging markets	5.1	4.7	4.1	4.1	4.6	5.1	5.2	5.2
GDP, global	3.3	3.4	3.1	3.2	3.5	3.8	3.9	3.8
HICP, euro area	1.3	0.4	0.0	0.3	1.4	1.4	1.6	1.7
CPI, US	1.5	1.6	0.1	1.0	2.0	2.2	2.3	2.4
Policy rate, euro area	0.25	0.05	0.05	0.00	0.00	0.50	1.25	1.75
Policy rate, US	0.25	0.25	0.50	1.00	1.75	2.75	3.25	3.75
Policy rate, KIX-weighted	0.26	0.16	0.01	−0.07	0.04	0.50	1.14	1.74
Overnight rate, euro area (Eonia)	0.17	−0.03	−0.20	−0.30	−0.30	0.20	0.80	1.40

Note. Policy rates refer to year-end values. KIX-weighted policy rate refers to an average of Eonia (for the euro area) and policy rates in the US, Norway, UK, Denmark and Japan. Other aggregates are calculated using the IMF's purchasing power parity GDP weights.

Sources: IMF, OECD and NIER.

**Table A19 Resource utilisation**

Percentage change, calendar-adjusted values, unless otherwise indicated

	2013	2014	2015	2016	2017	2018	2019	2020
<b>Labour market</b>								
Equilibrium unemployment <sup>1</sup>	6.7	6.7	6.7	6.7	6.8	6.8	6.9	7.0
Actual unemployment <sup>2</sup>	8.0	7.9	7.4	6.7	6.3	6.2	6.4	6.7
Potential hours worked	0.9	1.0	0.9	0.9	0.9	0.8	0.7	0.9
Of which: Potential employment	1.1	1.0	0.9	0.8	0.8	0.8	0.8	0.9
Actual hours worked	0.4	1.8	1.0	2.0	1.7	1.1	0.6	0.4
Labour market gap <sup>3</sup>	−2.0	−1.1	−1.1	0.0	0.7	1.0	0.8	0.4
<b>Productivity</b>								
Potential productivity	0.8	0.7	1.3	1.2	1.1	1.2	1.2	1.3
Of which: Potential productivity, business sector	1.3	1.4	1.6	1.7	1.8	1.8	1.8	1.8
Actual productivity	0.8	0.6	2.8	1.3	0.9	0.9	1.0	1.3
Productivity gap <sup>4</sup>	−0.8	−1.0	0.5	0.6	0.3	0.1	−0.2	−0.1
<b>GDP</b>								
Potential GDP	1.7	1.7	2.2	2.1	2.1	2.0	1.9	2.2
Actual GDP	1.2	2.4	3.8	3.3	2.6	2.0	1.6	1.8
Output gap <sup>5</sup>	−2.8	−2.1	−0.5	0.6	1.1	1.0	0.7	0.3

<sup>1</sup> Level, per cent of potential labour force. <sup>2</sup> Level, per cent of labour force. <sup>3</sup> Difference between actual and potential hours worked in per cent of potential hours worked. <sup>4</sup> Difference between actual and potential productivity in per cent of potential productivity. <sup>5</sup> Difference between actual and potential GDP in per cent of potential GDP.

Sources: Statistics Sweden and NIER.

**Table A20 Scenario for the Swedish economy**

Percentage change unless otherwise indicated

	2013	2014	2015	2016	2017	2018	2019	2020
GDP <sup>1</sup>	1.2	2.4	3.8	3.3	2.6	2.0	1.6	1.8
Output gap	-2.8	-2.1	-0.5	0.6	1.1	1.0	0.7	0.3
GDP per capita <sup>1</sup>	0.4	1.4	2.7	2.1	1.2	0.4	0.0	0.3
Hours worked <sup>1</sup>	0.4	1.8	1.0	2.0	1.7	1.1	0.6	0.4
Productivity	0.9	0.5	2.6	1.3	0.9	0.9	1.0	1.3
Labour force	1.1	1.3	0.8	1.0	0.9	0.9	0.9	0.9
Employment	1.0	1.4	1.4	1.7	1.4	1.0	0.7	0.6
Unemployment <sup>2</sup>	8.0	7.9	7.4	6.7	6.3	6.2	6.4	6.7
Hourly earnings <sup>3</sup>	2.5	2.8	2.5	3.2	3.4	3.6	3.6	3.4
Unit labour cost	1.5	1.3	1.7	2.4	2.6	2.7	2.6	2.0
CPI	0.0	-0.2	0.0	0.8	1.2	3.2	3.5	3.2
CPIF	0.9	0.5	0.9	1.3	1.5	2.1	2.4	2.2
Repo rate <sup>4</sup>	0.75	0.00	-0.35	-0.50	0.00	1.00	1.75	2.50
Interest rate, ten-year government bond <sup>5</sup>	2.1	1.7	0.7	1.1	2.0	2.9	3.8	4.3
Effective krona exchange rate index (KIX) <sup>5, 6</sup>	103.0	106.8	112.6	109.8	108.0	105.9	103.8	101.7
Government net lending <sup>7</sup>	-1.4	-1.6	-0.3	-0.3	-0.6	0.2	0.6	0.9
Structural net lending <sup>8</sup>	-0.6	-0.9	-0.2	-0.4	-1.0	-0.5	0.0	0.7

<sup>1</sup> Calendar-adjusted values. <sup>2</sup> Per cent of labour force. <sup>3</sup> According to the short-term earnings statistics. <sup>4</sup> At year-end. <sup>5</sup> Annual average. <sup>6</sup> Index 18 November 1992=100. <sup>7</sup> Per cent of GDP. <sup>8</sup> Per cent of potential GDP.

Sources: National Mediation Office, the Riksbank, Statistics Sweden and NIER.

**Table A21 GDP and demand**

Percentage change, constant prices, calendar-adjusted values

	2013	2014	2015	2016	2017	2018	2019	2020
Household consumption expenditure	1.9	2.3	2.5	2.6	2.5	2.6	2.4	2.4
General government consumption expenditure	1.3	1.6	2.1	3.7	2.6	2.1	2.0	1.9
Gross fixed capital formation	0.6	7.7	6.9	4.0	4.1	2.7	0.8	1.6
<i>Domestic demand excl. stockbuilding</i>	<i>1.4</i>	<i>3.4</i>	<i>3.5</i>	<i>3.3</i>	<i>2.9</i>	<i>2.5</i>	<i>1.9</i>	<i>2.1</i>
Stockbuilding <sup>1</sup>	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0
<i>Total domestic demand</i>	<i>1.6</i>	<i>3.5</i>	<i>3.5</i>	<i>3.2</i>	<i>2.9</i>	<i>2.5</i>	<i>1.9</i>	<i>2.0</i>
Exports	-0.8	3.7	5.5	3.8	3.6	3.6	3.7	3.6
<i>Total demand</i>	<i>0.8</i>	<i>3.6</i>	<i>4.2</i>	<i>3.4</i>	<i>3.1</i>	<i>2.8</i>	<i>2.5</i>	<i>2.6</i>
Imports	-0.1	6.5	4.9	3.7	4.5	4.9	4.5	4.3
<i>Net exports<sup>1</sup></i>	<i>-0.3</i>	<i>-1.0</i>	<i>0.4</i>	<i>0.2</i>	<i>-0.2</i>	<i>-0.4</i>	<i>-0.2</i>	<i>-0.2</i>
<b>GDP</b>	<b>1.2</b>	<b>2.4</b>	<b>3.8</b>	<b>3.3</b>	<b>2.6</b>	<b>2.0</b>	<b>1.6</b>	<b>1.8</b>

<sup>1</sup> Change in per cent of GDP the previous year.

Sources: Statistics Sweden and NIER.

**Table A22 Interest and exchange rates**

Per cent, index 18 November 1992=100 and SEK per currency unit, respectively

	2013	2014	2015	2016	2017	2018	2019	2020
<b>At year-end</b>								
Repo rate	0.75	0.00	-0.35	-0.50	0.00	1.00	1.75	2.50
<b>Annual average</b>								
Repo rate	1.0	0.5	-0.3	-0.5	-0.4	0.6	1.4	2.1
Five-year government bond rate	1.6	0.9	0.2	0.2	1.2	2.2	3.1	3.7
Ten-year government bond rate	2.1	1.7	0.7	1.1	2.0	2.9	3.8	4.3
Effective krona exchange rate index (KIX)	103.0	106.8	112.6	109.8	108.0	105.9	103.8	101.7
EUR exchange rate	8.7	9.1	9.4	9.3	9.2	9.0	8.9	8.8
USD exchange rate	6.5	6.9	8.4	8.6	8.4	8.0	7.7	7.4

Sources: The Riksbank and NIER.

## Public finances 2016–2020

**Table A23 General government finances**

SEK billion and percentage of GDP, respectively, current prices

	2013	2014	2015	2016	2017	2018	2019	2020
<b>Revenue</b>	<b>1 861</b>	<b>1 904</b>	<b>2 022</b>	<b>2 124</b>	<b>2 241</b>	<b>2 397</b>	<b>2 541</b>	<b>2 681</b>
<i>Per cent of GDP</i>	49.4	48.6	48.7	48.6	49.3	50.5	51.4	52.0
Taxes and duties	1 612	1 672	1 781	1 883	1 997	2 135	2 259	2 378
<i>Per cent of GDP</i>	42.8	42.7	42.9	43.1	43.9	45.0	45.7	46.1
Tax-to-GDP ratio <sup>1</sup>	42.9	42.8	43.0	43.3	44.0	45.1	45.9	46.3
Property income	72	62	60	59	59	69	81	94
Other revenue	177	170	180	181	185	193	201	210
<b>Expenditure</b>	<b>1 913</b>	<b>1 966</b>	<b>2 034</b>	<b>2 139</b>	<b>2 268</b>	<b>2 387</b>	<b>2 509</b>	<b>2 632</b>
<i>Per cent of GDP</i>	50.7	50.2	49.0	49.0	49.9	50.3	50.8	51.1
Transfers	718	729	747	762	805	845	882	920
Households	583	590	602	622	651	685	716	747
Corporations	67	72	74	83	85	88	92	96
Abroad	67	68	71	57	70	72	74	77
Consumption expenditure	993	1 031	1 083	1 158	1 226	1 294	1 363	1 430
Capital formation etc.	166	172	178	190	204	212	221	230
Property expenditure	36	33	26	28	33	36	44	53
<b>Net lending</b>	<b>-52</b>	<b>-61</b>	<b>-12</b>	<b>-15</b>	<b>-27</b>	<b>10</b>	<b>31</b>	<b>49</b>
<i>Per cent of GDP</i>	-1.4	-1.6	-0.3	-0.3	-0.6	0.2	0.6	0.9
<b>Primary net lending</b>	<b>-88</b>	<b>-90</b>	<b>-46</b>	<b>-46</b>	<b>-53</b>	<b>-23</b>	<b>-6</b>	<b>7</b>
<i>Per cent of GDP</i>	-2.3	-2.3	-1.1	-1.1	-1.2	-0.5	-0.1	0.1
<b>Maastricht debt</b>	<b>1 501</b>	<b>1 759</b>	<b>1 805</b>	<b>1 820</b>	<b>1 869</b>	<b>1 910</b>	<b>1 932</b>	<b>1 939</b>
<i>Per cent of GDP</i>	39.8	44.9	43.4	41.7	41.1	40.2	39.1	37.6
GDP, current prices	3 770	3 918	4 155	4 369	4 550	4 747	4 942	5 152
Potential GDP, current prices	3 877	4 002	4 177	4 343	4 502	4 698	4 908	5 138
Net financial wealth	700	754	867	828	880	930	1 003	1 093
<i>Per cent of GDP</i>	18.6	19.3	20.9	19.0	19.3	19.6	20.3	21.2

<sup>1</sup> The tax-to-GDP ratio is calculated by dividing total taxes, including EU taxes, by GDP.

Sources: Statistics Sweden and NIER.



**Table A24 Central government finances**

SEK billion and percentage of GDP, respectively, current prices

	2013	2014	2015	2016	2017	2018	2019	2020
<b>Revenue</b>	<b>955</b>	<b>975</b>	<b>1 044</b>	<b>1 090</b>	<b>1 156</b>	<b>1 247</b>	<b>1 328</b>	<b>1 406</b>
Taxes and duties	807	839	904	954	1 017	1 101	1 173	1 239
Property income	35	24	22	20	19	21	25	30
Other revenue	113	112	117	116	120	125	131	136
<b>Expenditure</b>	<b>999</b>	<b>1 025</b>	<b>1 056</b>	<b>1 102</b>	<b>1 172</b>	<b>1 229</b>	<b>1 292</b>	<b>1 353</b>
Transfers	612	633	657	680	729	769	810	848
Old-age pension system <sup>1</sup>	20	22	23	25	24	25	26	28
Local government sector	192	204	220	245	266	284	301	315
Households	292	296	301	304	320	336	354	371
Corporations	44	47	46	53	54	56	58	61
Abroad	64	65	68	54	66	68	70	73
Consumption expenditure	269	275	286	301	314	326	339	354
Capital formation etc.	89	89	90	95	101	105	110	115
Property expenditure	29	28	22	25	28	28	32	36
Of which interest expenditure	25	24	18	20	24	23	27	31
<b>Net lending</b>	<b>-44</b>	<b>-49</b>	<b>-12</b>	<b>-11</b>	<b>-17</b>	<b>18</b>	<b>37</b>	<b>53</b>
Per cent of GDP	-1.2	-1.3	-0.3	-0.3	-0.4	0.4	0.7	1.0
Central government debt	1 236	1 347	1 355	1 343	1 362	1 376	1 370	1 350
Per cent of GDP	32.8	34.4	32.6	30.7	29.9	29.0	27.7	26.2
Net financial wealth	-369	-431	-427	-395	-401	-366	-311	-240
Per cent of GDP	-9.8	-11.0	-10.3	-9.0	-8.8	-7.7	-6.3	-4.7

<sup>1</sup> Central government's old-age pension contributions.

Sources: Statistics Sweden, National Debt Office and NIER.

**Table A25 Old-age pension system finances**

SEK billion and percentage of GDP, respectively, current prices

	2013	2014	2015	2016	2017	2018	2019	2020
<b>Revenue</b>	<b>254</b>	<b>264</b>	<b>278</b>	<b>291</b>	<b>303</b>	<b>320</b>	<b>335</b>	<b>349</b>
Social insurance contributions	208	215	224	235	247	259	270	280
Central government's old-age pension contributions	20	22	23	25	24	25	26	28
Property income	24	27	29	30	31	35	37	39
Other revenue	1	1	1	1	1	2	2	2
<b>Expenditure</b>	<b>259</b>	<b>260</b>	<b>270</b>	<b>288</b>	<b>302</b>	<b>318</b>	<b>330</b>	<b>343</b>
Income pensions	254	255	265	282	296	312	324	336
Property expenditure	0	0	0	0	0	0	0	0
Other expenses	5	5	5	6	6	6	7	7
<b>Net lending</b>	<b>-5</b>	<b>4</b>	<b>8</b>	<b>3</b>	<b>1</b>	<b>2</b>	<b>4</b>	<b>6</b>
Per cent of GDP	-0.1	0.1	0.2	0.1	0.0	0.0	0.1	0.1
Net financial wealth	1 069	1 198	1 301	1 232	1 297	1 316	1 338	1 363
Per cent of GDP	28.4	30.6	31.3	28.2	28.5	27.7	27.1	26.4

Sources: Statistics Sweden and NIER.

**Table A26 Local government finances**

SEK billion and percentage of GDP, respectively, current prices

	2013	2014	2015	2016	2017	2018	2019	2020
<b>Revenue</b>	<b>876</b>	<b>902</b>	<b>955</b>	<b>1 022</b>	<b>1 084</b>	<b>1 151</b>	<b>1 218</b>	<b>1 282</b>
Taxes	582	603	637	678	716	757	798	839
Municipal property tax	15	16	16	16	17	18	18	19
Central government grants incl. VAT compensation	190	203	220	244	265	283	300	314
Property income	14	13	10	10	11	15	21	27
Other revenue	74	68	73	74	74	77	80	83
<i>Average municipal tax rate<sup>1</sup></i>	<i>31.73</i>	<i>31.86</i>	<i>31.99</i>	<i>32.10</i>	<i>32.16</i>	<i>32.39</i>	<i>32.68</i>	<i>33.02</i>
<b>Expenditure</b>	<b>878</b>	<b>918</b>	<b>963</b>	<b>1 029</b>	<b>1 096</b>	<b>1 161</b>	<b>1 227</b>	<b>1 292</b>
Transfers	72	75	77	77	78	81	84	88
Households	40	41	39	38	38	39	41	43
Other	32	34	38	39	40	42	43	45
Consumption expenditure	721	753	794	853	908	964	1 019	1 072
Capital formation etc.	77	83	88	94	103	107	111	115
Property expenditure	8	7	5	5	6	9	13	18
<b>Net lending</b>	<b>-2</b>	<b>-16</b>	<b>-8</b>	<b>-7</b>	<b>-12</b>	<b>-10</b>	<b>-10</b>	<b>-10</b>
<i>Per cent of GDP</i>	<i>-0.1</i>	<i>-0.4</i>	<i>-0.2</i>	<i>-0.2</i>	<i>-0.3</i>	<i>-0.2</i>	<i>-0.2</i>	<i>-0.2</i>
Net financial wealth	0	-13	-7	-8	-15	-20	-25	-29
<i>Per cent of GDP</i>	<i>0.0</i>	<i>-0.3</i>	<i>-0.2</i>	<i>-0.2</i>	<i>-0.3</i>	<i>-0.4</i>	<i>-0.5</i>	<i>-0.6</i>

<sup>1</sup> Per cent.

Sources: Statistics Sweden and NIER.

**Table A27 General government revenue**

Per cent of GDP

	2013	2014	2015	2016	2017	2018	2019	2020
Direct household taxes	15.1	15.2	15.2	15.5	16.2	17.2	17.9	18.3
Direct business taxes	2.7	2.7	3.0	2.5	2.5	2.5	2.5	2.5
Employers' social contributions <sup>1</sup>	11.9	11.8	11.8	12.2	12.3	12.4	12.4	12.4
VAT	9.0	9.0	9.0	9.0	9.1	9.1	9.1	9.2
Excise	2.4	2.3	2.3	2.3	2.2	2.2	2.2	2.3
Other taxes	1.9	1.8	1.8	1.7	1.7	1.7	1.7	1.7
<b>Tax-to-GDP ratio</b>	<b>42.9</b>	<b>42.8</b>	<b>43.0</b>	<b>43.3</b>	<b>44.0</b>	<b>45.1</b>	<b>45.9</b>	<b>46.3</b>
EU taxes <sup>2</sup>	-0.1	-0.1	-0.2	-0.1	-0.2	-0.2	-0.2	-0.2
Property income	1.9	1.6	1.4	1.4	1.3	1.5	1.6	1.8
Other revenue <sup>3</sup>	4.7	4.3	4.3	4.1	4.1	4.1	4.1	4.1
<b>Total revenue</b>	<b>49.4</b>	<b>48.6</b>	<b>48.7</b>	<b>48.6</b>	<b>49.3</b>	<b>50.5</b>	<b>51.4</b>	<b>52.0</b>

<sup>1</sup> Employers' social contributions, contributions from the self-employed and special payroll tax. <sup>2</sup> Taxes paid to the EU are included in the tax-to-GDP ratio but not in general government revenue. <sup>3</sup> Including transfers from abroad and from unemployment insurance funds.

Sources: Statistics Sweden and NIER.

**Table A28 General government expenditure**

Per cent of GDP

	2013	2014	2015	2016	2017	2018	2019	2020
Transfers	19.0	18.6	18.0	17.4	17.7	17.8	17.8	17.9
Households	15.5	15.0	14.5	14.2	14.3	14.4	14.5	14.5
Corporations	1.8	1.8	1.8	1.9	1.9	1.9	1.9	1.9
Abroad	1.8	1.7	1.7	1.3	1.5	1.5	1.5	1.5
General government consumption expenditure	26.3	26.3	26.1	26.5	26.9	27.3	27.6	27.8
Gross fixed capital formation	4.4	4.4	4.3	4.3	4.5	4.5	4.5	4.5
Property expenditure	1.0	0.8	0.6	0.6	0.7	0.8	0.9	1.0
<b>Total expenditure</b>	<b>50.7</b>	<b>50.2</b>	<b>49.0</b>	<b>49.0</b>	<b>49.9</b>	<b>50.3</b>	<b>50.8</b>	<b>51.1</b>

Sources: Statistics Sweden and NIER.

**Table A29 Transfers from general government to households**

Per cent of GDP

	2013	2014	2015	2016	2017	2018	2019	2020
Pensions <sup>1</sup>	8.4	8.1	7.8	7.8	7.8	7.9	7.8	7.8
Of which income pension	6.7	6.5	6.3	6.4	6.4	6.5	6.5	6.5
Labour market <sup>2</sup>	0.9	0.8	0.8	0.7	0.7	0.8	0.8	0.8
Illness and disability <sup>3</sup>	2.0	2.0	1.9	1.9	2.0	2.0	2.0	2.0
Family and children <sup>4</sup>	1.8	1.8	1.7	1.7	1.7	1.7	1.8	1.8
Education <sup>5</sup>	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3
Social assistance <sup>6</sup>	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
Other <sup>7</sup>	1.6	1.7	1.6	1.4	1.5	1.5	1.5	1.5
<b>Transfers to households</b>	<b>15.5</b>	<b>15.0</b>	<b>14.5</b>	<b>14.2</b>	<b>14.3</b>	<b>14.4</b>	<b>14.5</b>	<b>14.5</b>

<sup>1</sup> Income pension, supplementary pension, guaranteed pension, survivor's pension, general government occupational pensions and housing supplement for pensioners. <sup>2</sup> Unemployment benefits, labour market training benefits, introduction benefit and salary guarantee. <sup>3</sup> Sickness and rehabilitation benefit, activity and sickness compensation, work injury compensation and disability allowance. <sup>4</sup> Parental benefit, child allowance, care allowance and housing allowance. <sup>5</sup> Student grants and study allowance. <sup>6</sup> Welfare benefits. <sup>7</sup> Assistance compensation, financial support for asylum seekers, income support for the elderly and other transfers to households.

Sources: Statistics Sweden and NIER.

**Table A30 Income index, balance index, income pensions and balance ratio**

Percentage change, unless otherwise indicated

	2013	2014	2015	2016	2017	2018	2019	2020
Income index <sup>1</sup>	3.7	0.5	2.1	2.0	3.3	3.7	3.6	3.6
Balance index <sup>1</sup>	5.8	-1.1	2.5	5.9	4.1	4.8	3.6	3.6
Balance ratio <sup>2, 3</sup>	1.020	0.984	1.004	1.038	1.007	1.012	1.008	1.007
<b>Nominal income pension<sup>4</sup></b>	<b>4.1</b>	<b>-2.7</b>	<b>0.9</b>	<b>4.2</b>	<b>2.4</b>	<b>3.1</b>	<b>2.0</b>	<b>2.0</b>

<sup>1</sup> The NIER's model-based estimates for 2017–2020. <sup>2</sup> Level. <sup>3</sup> Starting with 2017 entries refer to the dampened balance ratio according to the Swedish Pensions Agency, expressing the pension system's assets in relation to its liabilities two years before the current year. <sup>4</sup> Balance index minus 1,6.

Sources: Swedish Pensions Agency and NIER.

**Table A31 Central government budget balance and debt**

SEK billion and percentage of GDP, respectively

	2013	2014	2015	2016	2017
<b>Budget balance</b>	<b>-130.9</b>	<b>-72.2</b>	<b>-32.8</b>	<b>8.5</b>	<b>-24.0</b>
Adjustments to net lending	56.7	0.4	11.6	11.0	4.2
Sales of shares etc.	-20.6	-0.3	0.0	0.0	0.0
Extra dividends	-4.5	-2.1	-11.3	-1.5	0.0
On-lending	94.4	28.4	12.7	19.8	13.4
Other adjustments	-12.6	-25.7	10.3	-7.3	-9.2
Accruals	30.4	25.1	4.4	-30.0	3.9
Of which: Tax accruals	20.8	27.6	10.6	-21.4	1.9
Interest accruals	9.6	-5.4	-8.0	-4.0	2.0
Other	-0.5	-2.6	4.6	-0.6	-0.6
<b>Central government net lending</b>	<b>-44.3</b>	<b>-49.4</b>	<b>-12.2</b>	<b>-11.1</b>	<b>-16.5</b>
Central government borrowing requirement <sup>1</sup>	130.9	72.2	32.8	-8.5	24.0
Stock-flow adjustments, central government debt	-7.9	38.8	-24.8	-3.8	-4.5
Central government debt, change	123.0	111.0	8.0	-12.3	19.5
<b>Central government debt</b>	<b>1 236</b>	<b>1 347</b>	<b>1 355</b>	<b>1 343</b>	<b>1 362</b>
<i>Per cent of GDP</i>	<i>32.8</i>	<i>34.4</i>	<i>32.6</i>	<i>30.7</i>	<i>29.9</i>

<sup>1</sup> The central government borrowing requirement is equal to the budget balance with the sign reversed.

Sources: Statistics Sweden, Swedish National Financial Management Authority, Swedish National Debt Office and NIER.

**Table A32 Central government expenditure ceiling**

SEK billion unless otherwise indicated

	2013	2014	2015	2016	2017	2018
<b>Central government expenditure ceiling<sup>1</sup></b>	<b>1 095</b>	<b>1 107</b>	<b>1 158</b>	<b>1 215</b>	<b>1 274</b>	<b>1 332</b>
<i>Per cent of potential GDP</i>	<i>28.2</i>	<i>27.7</i>	<i>27.7</i>	<i>28.0</i>	<i>28.3</i>	<i>28.4</i>
Capped expenditure	1 067	1 096	1 134	1 189	1 268	1 333
<i>Per cent of potential GDP</i>	<i>27.5</i>	<i>27.4</i>	<i>27.1</i>	<i>27.4</i>	<i>28.2</i>	<i>28.4</i>
<b>Budgeting margin</b>	<b>28</b>	<b>11</b>	<b>24</b>	<b>26</b>	<b>6</b>	<b>-1</b>
<i>Per cent of capped expenditure</i>	<i>2.6</i>	<i>1.0</i>	<i>2.1</i>	<i>2.2</i>	<i>0.5</i>	<i>-0.1</i>

<sup>1</sup> Values up to and including 2018 refer to expenditure ceilings decided by the riksdag.

Sources: Swedish National Financial Management Authority, Ministry of Finance and NIER.

**Table A33 Indicators for the surplus target**

Per cent of potential GDP and percentage of GDP, respectively

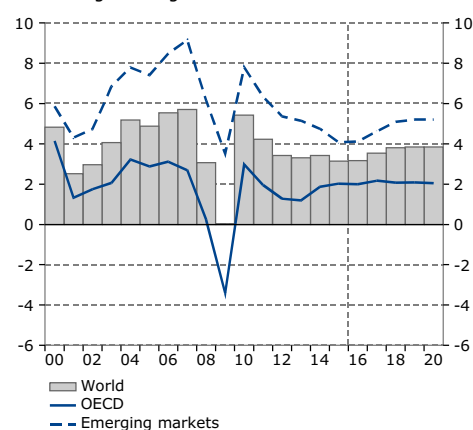
	2013	2014	2015	2016	2017	2018	2019	2020
Structural net lending	-0.6	-0.9	-0.2	-0.4	-1.0	-0.5	0.0	0.7
Seven-year indicator	-0.7	-0.7	-0.7	-0.5	-0.1	0.2	0.4	0.7
Seven-year indicator, cyclically adjusted	0.0	-0.3	-0.5	-0.5	-0.3	0.0	0.2	0.4
Ten-year indicator	0.6	0.5	0.2	0.0	-0.4	-0.6	-0.4	-0.3
Ten-year indicator, cyclically adjusted	1.1	0.9	0.8	0.6	0.3	0.0	-0.1	-0.2

Note. The ten-year indicator is a ten-year backward-looking moving average for general government net lending. The seven-year indicator is a centred seven-year mean for general government net lending. Here, the indicators are calculated both on the basis of actual net lending and on the basis of structural net lending. All calculations are based on the NIER's fiscal policy scenario.

Source: NIER.

**Diagram 158 GDP – world, OECD and emerging markets**

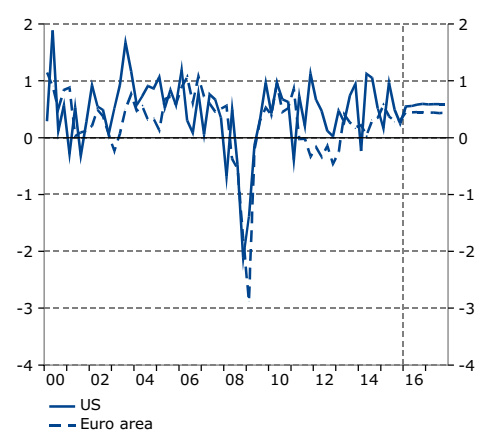
Percentage change



Note. Emerging markets are defined here as countries that are not members of the OECD.  
Sources: OECD, IMF and NIER.

**Diagram 159 GDP in the US and the euro area**

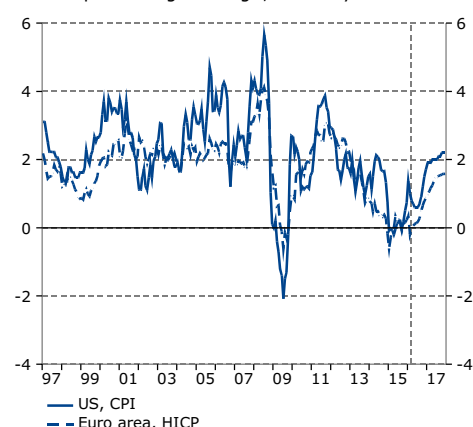
Percentage change, seasonally-adjusted quarterly values



Sources: Bureau of Economic Analysis, Eurostat and NIER.

**Diagram 160 Inflation in the US and the euro area**

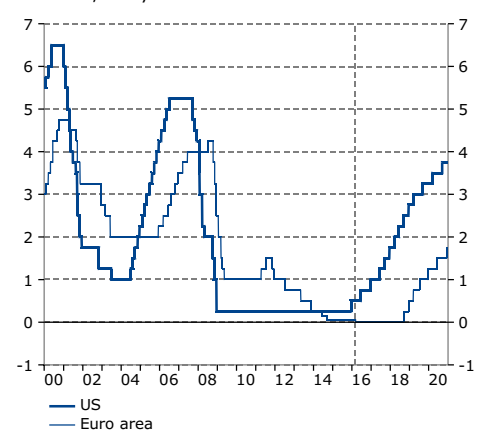
Annual percentage change, monthly values



Sources: Bureau of Labor Statistics, Eurostat and NIER.

**Diagram 161 Central bank policy rates**

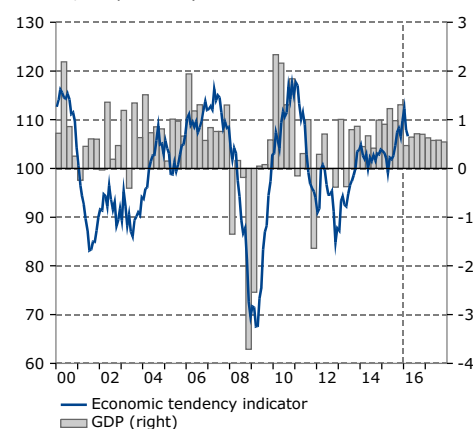
Per cent, daily values



Sources: Federal Reserve, ECB and NIER.

**Diagram 162 Economic tendency indicator and GDP**

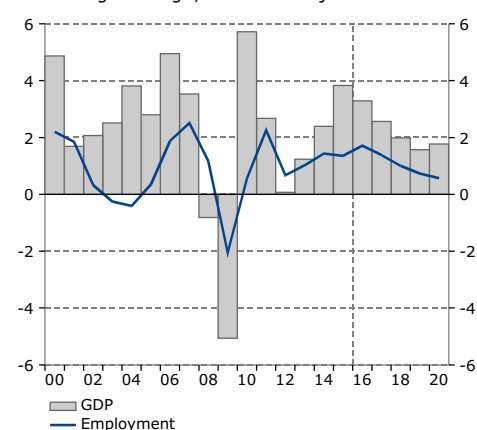
Index mean=100, monthly values, and percentage change, seasonally-adjusted quarterly values, respectively



Sources: Statistics Sweden and NIER.

**Diagram 163 GDP and employment**

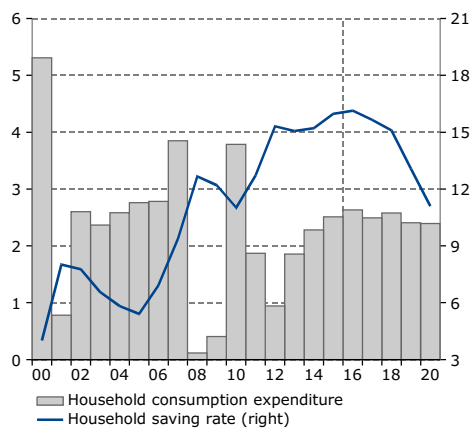
Percentage change, calendar-adjusted values



Sources: Statistics Sweden and NIER.

**Diagram 164 Household consumption and saving rate**

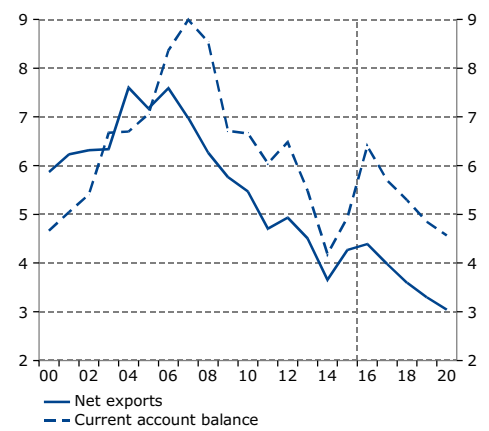
Percentage change, calendar-adjusted values, and percentage of disposable income, respectively



Sources: Statistics Sweden and NIER.

**Diagram 165 Net exports and current account balance**

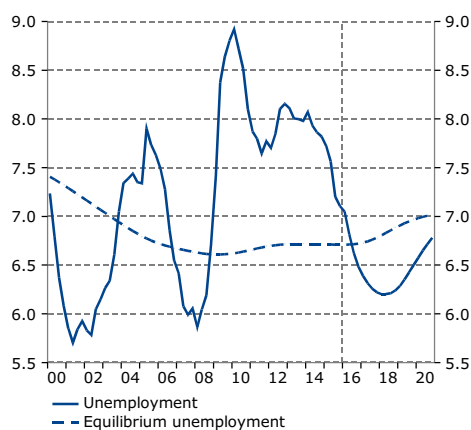
Per cent of GDP, current prices



Sources: Statistics Sweden and NIER.

**Diagram 166 Unemployment and equilibrium unemployment**

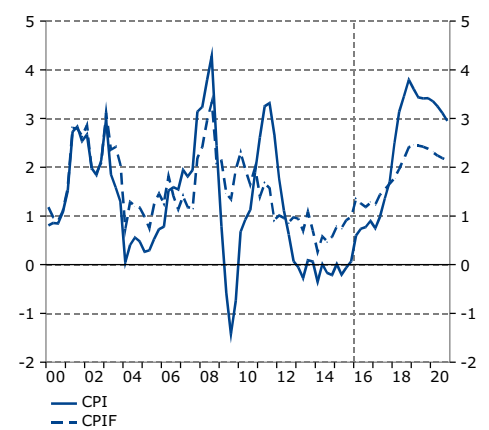
Per cent of labour force, seasonally-adjusted quarterly values



Sources: Statistics Sweden and NIER.

**Diagram 167 Consumer prices**

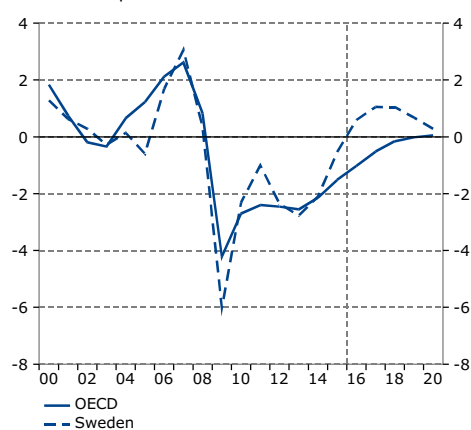
Annual percentage change, quarterly values



Sources: Statistics Sweden and NIER.

**Diagram 168 Output gap in the OECD and Sweden**

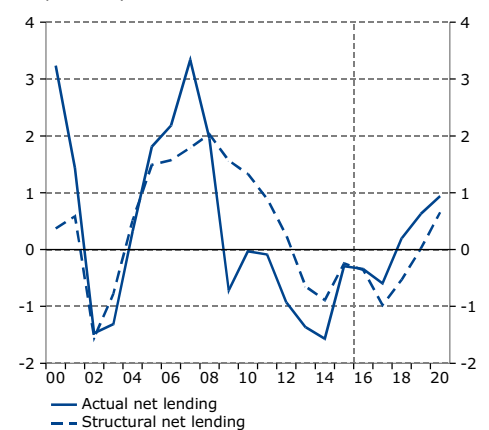
Per cent of potential GDP



Sources: OECD, Statistics Sweden and NIER.

**Diagram 169 Actual and structural net lending**

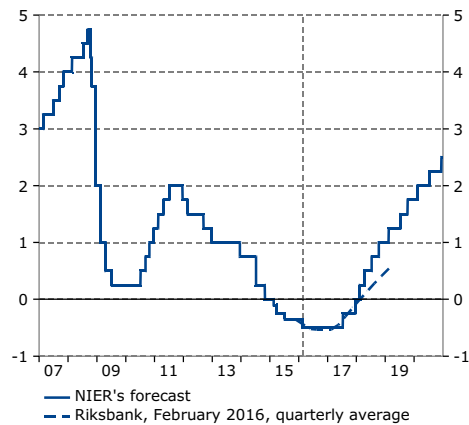
Per cent of GDP and per cent of potential GDP, respectively



Sources: Statistics Sweden and NIER.

**Diagram 170 Repo rate**

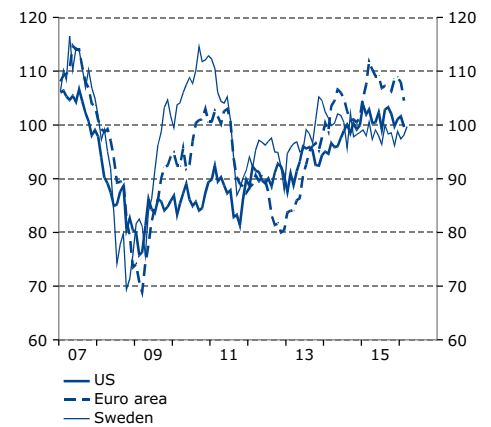
Per cent, daily values



Sources: The Riksbank and NIER.

**Diagram 171 Consumer confidence in the US, the euro area and Sweden**

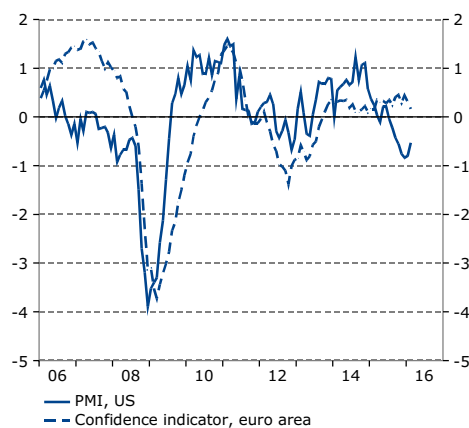
Index mean=100, monthly values



Sources: Conference Board, Eurostat and NIER.

**Diagram 172 Confidence indicators for manufacturing**

Standardised deviation from mean, seasonally-adjusted monthly values



Sources: Institute for Supply Management, European Commission and NIER.

**Diagram 173 Recruitment plans in the business sector and employment**

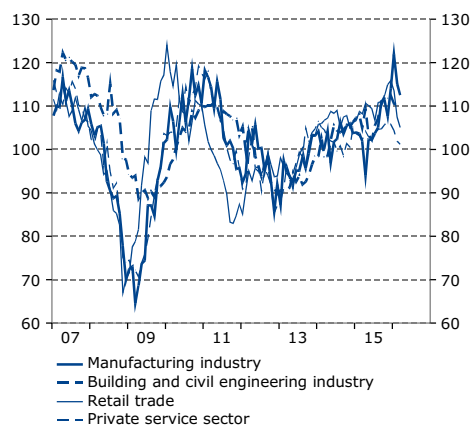
Net balance, seasonally-adjusted monthly values, and percentage change, seasonally-adjusted quarterly values, respectively



Sources: Statistics Sweden and NIER.

**Diagram 174 Confidence indicators for the business sector**

Index, mean=100, seasonally-adjusted monthly values



Source: NIER.

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