

The Swedish Economy

June 2017



National Institute of Economic Research





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Summary

GDP growth in Sweden will slow slightly this year and next, but the output gap will continue to widen. Demand for labour is strong in both the business sector and the public sector, and employment will rise rapidly this year. At the same time, there are also major shortages of labour with the required skills. Considerable matching problems mean that unemployment will fall only slightly further and level off at 6.4 per cent next year. Due partly to subdued wage growth, CPIF inflation will not hit 2 per cent until 2020. The Riksbank will not therefore begin to raise the repo rate until autumn 2018. Fiscal policy will be neutral next year, when there will be some scope for unfunded measures.

GDP grew 0.4 per cent in the first quarter this year, which was slightly less than anticipated (see Diagram 1). The labour market continued to improve, and employment increased by no less than 1.0 per cent, which was surprisingly strong. Confidence indicators and monthly data suggest that GDP growth will be higher in the second and third quarters, while employment growth will slow somewhat. The output gap will therefore continue to widen, and unemployment will continue to fall.

GLOBAL GROWTH ON THE UP

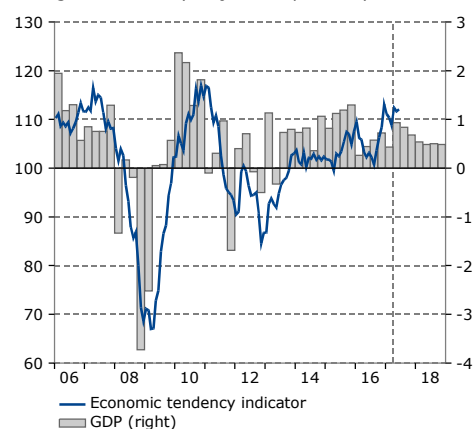
The Swedish economy will benefit from continued recovery across much of the global economy. In the OECD countries, many confidence indicators are above, or well above, their historical averages (see Diagram 2). Recent hard data, on the other hand, have not been quite as strong as indicators suggested. GDP growth in the OECD countries is nevertheless expected to accelerate somewhat this year to 2.0 per cent, resulting in further narrowing of the output gap.

Strong growth in investment is fuelling economic growth in both the US and the euro area. Investment levels are still low, and there is a need to replace old equipment and expand production capacity. In the euro area, very low interest rates are stimulating investment, although problems in the bank sector are holding back lending in some countries. In the US, last year's rise in oil prices means that investment in the energy sector will stop falling this year after the sharp cutbacks of recent years (see Diagram 3).

Other commodity prices have also climbed since the beginning of 2016, including those for metals. Many emerging markets, including Brazil and Russia, are major commodity producers and exporters and are therefore benefiting from the rise in prices, which is one reason why Brazil and Russia are returning to growth this year after recent years' recession. This will more than compensate for Chinese growth continuing to slow. GDP

Diagram 1 Economic tendency indicator and GDP

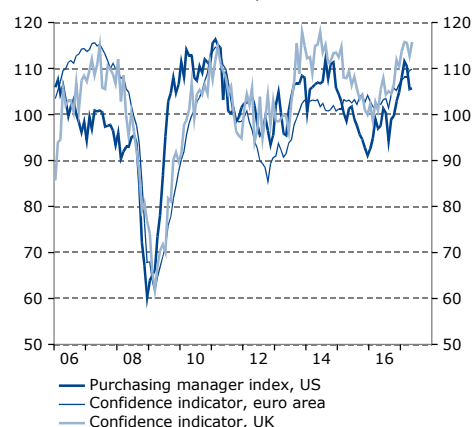
Index mean=100, monthly values and percentage change, seasonally adjusted quarterly



Sources: Statistics Sweden and NIER.

Diagram 2 Confidence indicators for manufacturing in US, euro area and UK

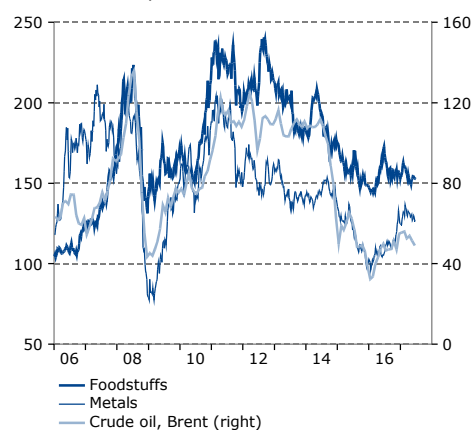
Index mean=100, monthly values



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

Diagram 3 Commodity prices

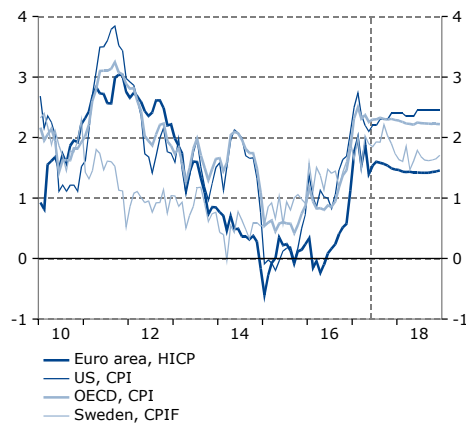
Index 2005=100, weekly values and dollar per barrel, monthly values



Sources: Economist and Macrobond.

Diagram 4 Consumer prices

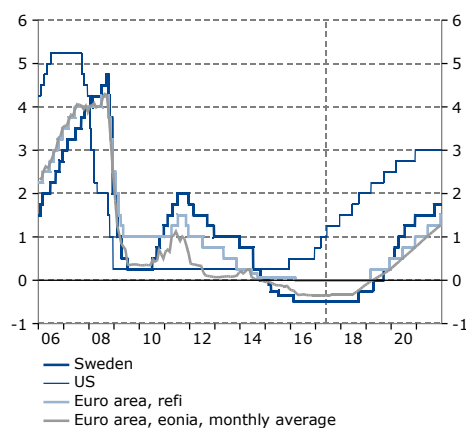
Annual percentage change, monthly values



Sources: OECD, Macrobond and NIER.

Diagram 5 Policy rates

Per cent, daily and monthly values

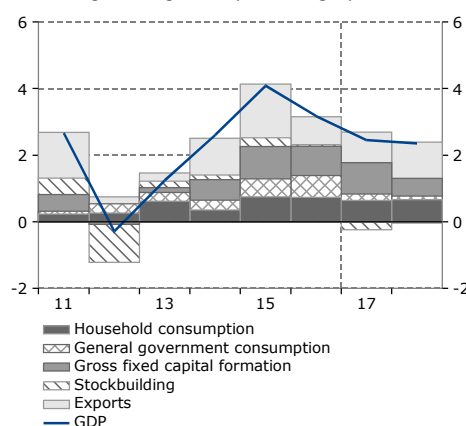


Note. The US policy rate refers to the upper bound of the target range for the federal funds rate.

Sources: ECB, Federal Reserve, Sveriges Riksbank, Macrobond and NIER.

Diagram 6 Contributions to GDP growth, adjusted for import content

Percentage change and percentage points



Note. The contribution from stockbuilding is calculated without adjustment for the import content.

Sources: Statistics Sweden and NIER.

growth in emerging markets as a whole will therefore accelerate this year.

OECD INFLATION ABOVE 2 PER CENT

Rising commodity prices have also contributed to rising inflation in many countries. In the OECD countries, higher energy prices pushed inflation up to around 2.5 per cent during the spring (see Diagram 4). Crude oil prices have now stabilised and are expected to hold around their current levels both this year and next, which means that inflation in the OECD countries will fall back slightly, although it will remain above 2 per cent.

The recovery in the US economy is almost complete, and inflation is on target. The Federal Reserve will therefore continue to take monetary policy in a less expansionary direction to prevent the economy from overheating further ahead (see Diagram 5). In the euro area, the recovery is less advanced, and inflation is still below target. The ECB will gradually begin to raise the Eonia interbank rate from the third quarter next year, but will not put its benchmark rate (the refi rate) up until spring 2019.

HARD TO GAUGE IMPACT OF NEW US ADMINISTRATION

The relatively bright global outlook is partly a reflection of the new US administration announcing its intention to pursue an expansionary fiscal policy. There is, however, considerable uncertainty about the size, timing and effects of the intended stimuli. The forecast for the US is therefore more uncertain than usual.

In Europe, developments are being coloured by Brexit and uncertainty about the EU's future direction. Economic policy uncertainty of this kind generally has only a limited impact on the Swedish economy, but a general erosion of confidence in the EU and the euro could have significant negative effects, partly through turbulence in financial markets.

GROWING OUTPUT GAP IN SWEDEN

The strong investment growth globally is benefiting the Swedish export industry. Despite a very weak first quarter, exports of services will continue to grow both this year and next. The contribution to growth from exports (adjusted for their import content) will therefore rise gradually in 2017 and 2018, with GDP growing by 2.5 and 2.4 per cent respectively (see Diagram 6).

Virtually all indicators suggest that manufacturers are positive about demand, and capacity utilisation is beginning to hit high levels. Investment in Swedish goods production will therefore increase more quickly this year and next and so again make a contribution to gross fixed capital formation (see Diagram 7). Housing investment has risen rapidly in recent years and is now relatively high (see Diagram 8). Work began on more than 20,000 new apartments in the first quarter this year. There have not been as many housing starts since the early 1990s. Housing

investment will therefore continue to rise rapidly this year. It will then slow, due partly to major shortages of skilled labour. All in all, investment will be as strong a growth engine this year as it was last year (see Diagram 6).

Household savings has climbed to historically high levels (see Diagram 9). Much of this is collective saving in occupational pensions, saving in the premium pension system, and real assets (mainly housing), but personal financial saving is also high. The high level of saving is due partly to households planning for higher future interest rates to even out consumption over time. Households have far more interest-bearing liabilities than interest-bearing assets, so rising interest rates will erode their disposable income. The saving rate is therefore expected to begin to fall during the latter part of the scenario.

Table 1 Selected indicators

Percentage change, unless otherwise indicated

	2015	2016	2017	2018	2019	2020	2021
GDP, market prices	4.1	3.2	2.5	2.4	1.7	1.8	1.7
GDP per capita	3.0	1.9	1.1	1.2	0.7	0.8	0.7
GDP, calendar-adjusted	3.8	2.9	2.7	2.5	1.8	1.6	1.6
GDP, world	3.4	3.1	3.6	3.6	3.6	3.5	3.6
Current account balance ¹	4.7	5.1	5.2	5.1	4.9	4.6	4.4
Hours worked ²	1.0	1.7	1.4	1.3	1.0	0.4	0.1
Employment	1.4	1.5	2.4	1.0	0.4	0.3	0.2
Unemployment rate ³	7.4	6.9	6.6	6.4	6.4	6.5	6.7
Labour market gap ⁴	-1.1	-0.2	0.4	0.9	1.2	0.9	0.3
Output gap ⁵	-0.5	0.6	1.3	1.6	1.2	0.8	0.3
Hourly earnings ⁶	2.4	2.4	2.7	2.9	3.3	3.4	3.5
Hourly labour costs ²	4.1	3.1	3.2	2.8	3.3	3.4	3.5
Productivity ²	2.5	1.0	1.4	1.2	0.8	1.2	1.5
CPI	0.0	1.0	1.7	1.6	2.3	3.2	2.6
CPIF	0.9	1.4	1.9	1.7	1.9	2.1	2.0
Repo rate ^{7,8}	-0.35	-0.50	-0.50	-0.25	0.50	1.50	1.75
10-year government bond yield ⁷	0.7	0.5	0.6	1.1	1.7	2.2	2.7
Effective krona exchange rate index (KIX) ⁹	112.6	111.7	113.9	112.6	110.5	108.3	106.1
Government net lending ¹	0.3	0.9	0.9	0.9	1.0	0.8	0.6
Structural net lending ¹⁰	-0.1	0.5	0.4	0.5	0.5	0.5	0.5
Maastricht debt ^{1,8}	43.9	41.6	39.2	37.3	35.7	34.4	33.4

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

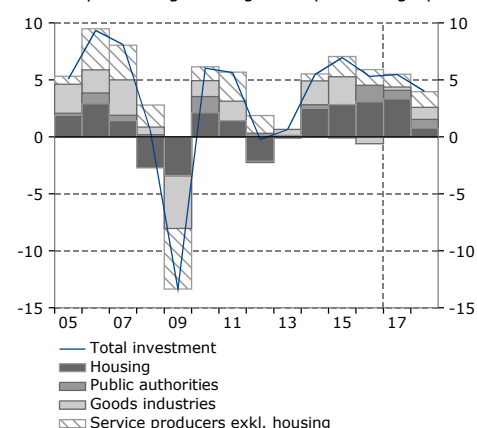
⁵ Difference between actual and potential GDP in per cent of potential GDP.

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

Sources: IMF, Statistics Sweden, National Mediation Office, Sveriges Riksbank, Macrobond and NIER.

Diagram 7 Contributions to investment growth

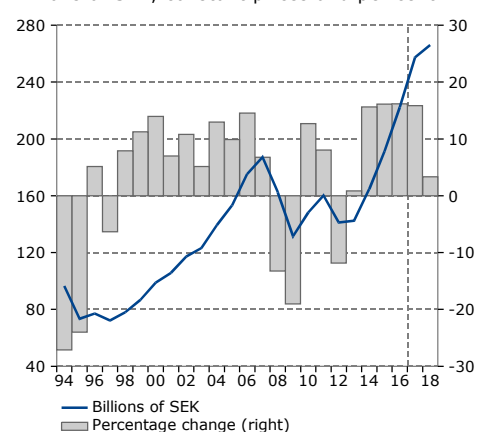
Annual percentage change and percentage points



Sources: Statistics Sweden and NIER.

Diagram 8 Housing investment

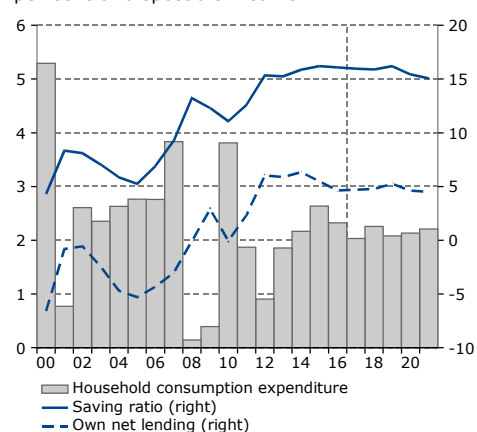
Billions of SEK, constant prices and per cent



Sources: Statistics Sweden and NIER.

Diagram 9 Household consumption, saving ratio and own saving

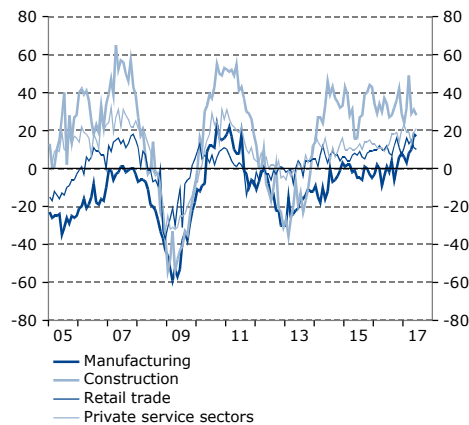
Percentage change, calendar-adjusted values and per cent of disposable income



Sources: Statistics Sweden and NIER.

Diagram 10 Hiring plans

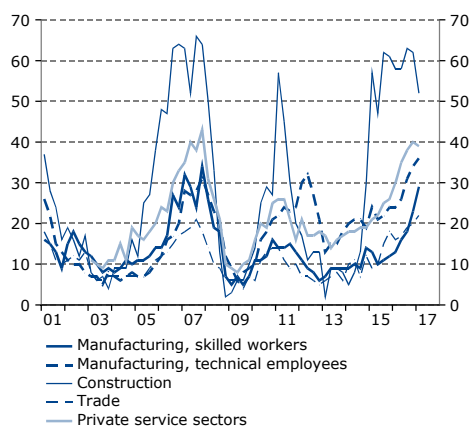
Balances, seasonally adjusted monthly values



Source: NIER.

Diagram 11 Labour shortage

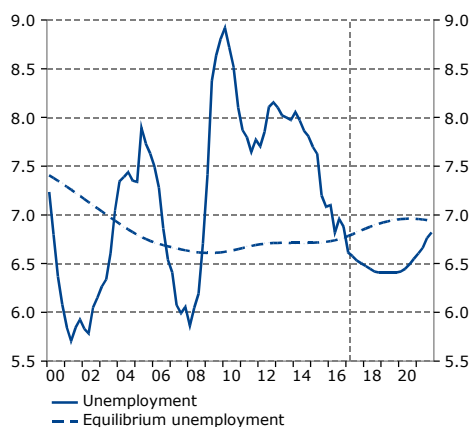
Share of yes answers, seasonally adjusted quarterly values



Source: NIER.

Diagram 12 Unemployment and equilibrium unemployment

Per cent of labour force, seasonally adjusted quarterly values



Sources: Statistics Sweden and NIER.

STRONG DEMAND FOR LABOUR

Employment has risen rapidly in recent years and there has been further strong growth this year. Firms' recruitment plans indicate a major need for more staff in all parts of the business sector (see Diagram 10), and the continued widening of the output gap indicates that demand for labour will grow further. However, there are considerable shortages of workers with the required skills. In the business sector, these shortages are at a similar level to the previous economic boom in 2007 (see Diagram 11), while those in the public sector are substantially greater than they were then. The scarcity of labour with the required skills is one reason why employment growth will start to slow later this year and next year.

Recent years' influx of refugees has brought rapid population growth. This has had a delayed effect on the labour force, which will therefore expand considerably this year. Therefore, despite strong employment growth, unemployment will not fall much further, and the unemployment rate will level off around 6.4 per cent in 2018 (see Diagram 12). The substantial inflows of immigrants into the labour force will also contribute to a deterioration in matching, and equilibrium unemployment will therefore increase somewhat in 2017–2019.

The substantial labour shortages indicate that resource utilisation in the labour market is now higher than normal, which will make it easier for immigrants and other groups with a weak position in the labour market to find work. Unemployment among the native population is now slightly lower than in the previous economic boom and will probably not fall much further. Immigrants account for 80 per cent of the increase in employment over the past year and are expected to continue to account for the bulk of employment growth. This does, however, presuppose continued action to improve matching in the labour market.

PAY SETTLEMENTS TEMPERED BY GLOBAL SITUATION

The 2017 round of collective bargaining has resulted in new three-year agreements for most workers in the business sector. The national settlements entail pay increases in line with the past four years. Given the strong labour market, it might have been natural for there to have been higher pay increases in this year's settlements. However, wage formation in Sweden is guided partly by the international competitiveness of the manufacturing sector, and the relatively low wage growth in the euro area is believed to have had a restraining effect in the Swedish negotiations.

The strong demand for labour and major shortages of labour nevertheless point to wage drift, and so wages are expected to rise somewhat faster this year than last and continue to accelerate in the coming years (see Diagram 13).

CPIF INFLATION TEMPORARILY HIGH THIS YEAR

The Swedish economy finds itself in an upward spiral where burgeoning demand and employment reinforce one another. It is therefore normal for CPIF inflation – the rise in the consumer price index with a fixed interest rate – to have risen gradually over the past three years (see Diagram 13). So far this year, CPIF inflation has hovered between 1.5 and 2 per cent. Various measures of core inflation, such as the CPIF excl. energy, remain much lower. Faster wage growth and strong demand growth suggest that inflation will continue to rise. Energy prices are expected to rise much more slowly than they have in the past year, however, which means that CPIF inflation will fall back in the latter part of 2017. Firms' inflation expectations are also low, which will curb their inclination to raise prices. The expected appreciation of the krona in the coming years will moreover put a damper on import prices. CPIF inflation will not therefore hit 2 per cent on a more permanent basis until 2020.

INTEREST RATES TO RISE IN 2018

The Riksbank has left the repo rate unchanged at -0.50 per cent for more than a year (see Diagram 14). The NIER forecasts a first increase in the repo rate in autumn 2018, which is in line with both market expectations, as measured by RIBA futures, and the Riksbank's own projections. By then, resource utilisation will be high, and CPIF inflation will again be headed upwards. Despite a strong economy, the hiking cycle will be protracted, with the repo rate hitting 1.75 per cent at the end of 2021. The real repo rate will then still be negative, reflecting a very low equilibrium interest rate throughout the period.

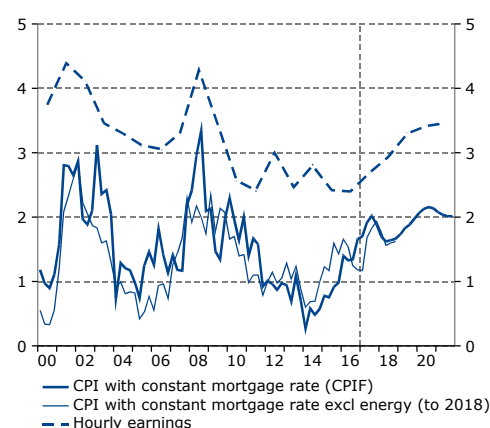
SOME SCOPE FOR UNFUNDED MEASURES IN 2018

Recent years' economic upturn has gone hand-in-hand with improved public finances (see Diagram 15). General government net lending will hold at the same level this year as last year. Structural – cyclically adjusted – net lending will fall slightly this year to 0.4 per cent of potential GDP, due partly to the budget and spring amendments for 2017 together being underfunded by SEK 13 billion.

The NIER's forecast is based on fiscal policy being designed such that the new surplus target is met in 2019. Structural net lending is therefore assumed to rise marginally to 0.5 per cent of potential GDP next year. In this case, there will be scope for unfunded measures of around SEK 9 billion in the budget for 2018. An unchanged public sector commitment to welfare services will, however, require a larger increase in spending next year. If this is the ambition, additional funding increases of around SEK 5 billion will need to be made.

Diagram 13 Consumer prices and earnings

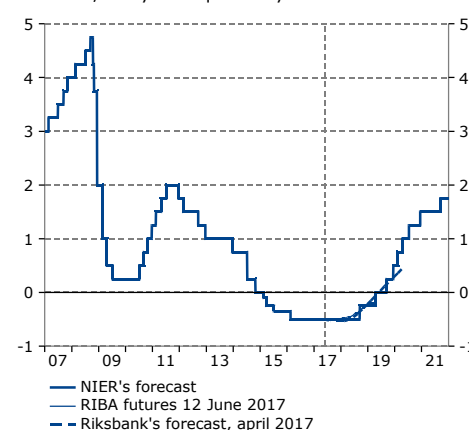
Annual percentage change, quarterly and annual values



Sources: National Mediation Office, Statistics Sweden and NIER.

Diagram 14 Repo rate

Per cent, daily and quarterly values

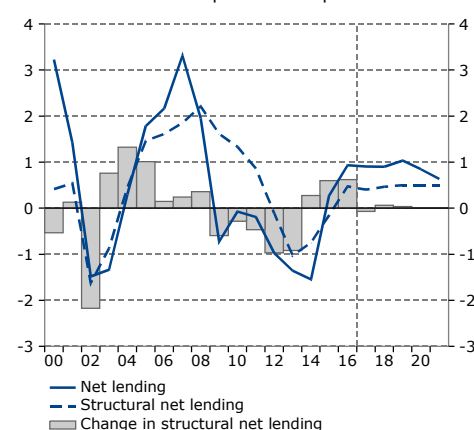


Note. The Riksbank's forecast refers to quarterly values.

Sources: Nasdaq OMX, Sveriges Riksbank, Macrobond and NIER.

Diagram 15 General government net lending and structural net lending

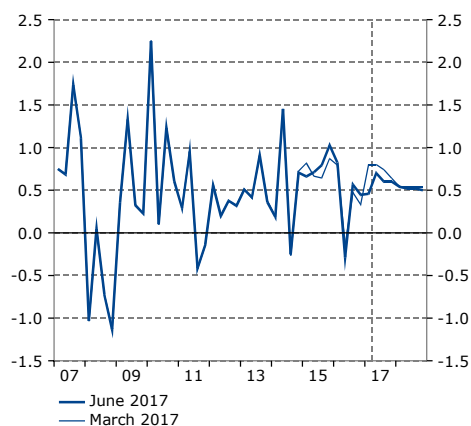
Per cent of GDP and per cent of potential GDP



Sources: Statistics Sweden and NIER.

Diagram 16 Household consumption

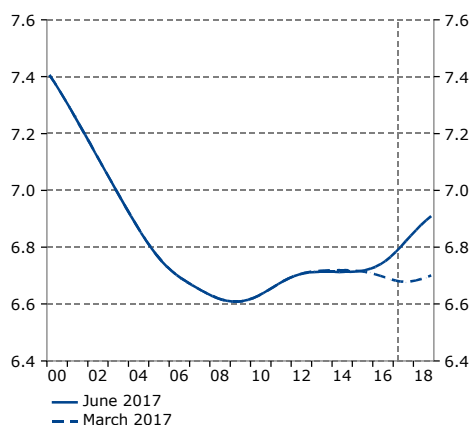
Annual percentage change, seasonally adjusted quarterly values



Sources: Statistics Sweden and NIER.

Diagram 17 Equilibrium unemployment

Per cent of labour force, seasonally adjusted quarterly values



Sources: Statistics Sweden and NIER.

Diagram 18 CPIF

Annual percentage change, quarterly values



Sources: Statistics Sweden and NIER.

Forecast revisions 2017–2018

New information since the March forecast has not greatly affected the outlook. The revisions for 2017 and 2018 are mostly minor, but with some exceptions as outlined below.

- GDP growth in the euro area has been revised up 0.2 percentage points to 1.9 per cent in 2017, due largely to incoming data showing stronger gross fixed capital formation than expected.
- The price of crude oil has been lowered by USD 2–3 per barrel in 2017–2018 to reflect the fall in prices since March and lower forward prices.
- Growth in household consumption in Sweden has been revised down 0.4 percentage points to 2.0 per cent in 2017 (see Diagram 16). This is due mainly to weaker consumption than expected in the first quarter.
- Government consumption has been adjusted down by 0.4 percentage points this year and 0.2 percentage points next year. This can be explained partly by weaker consumption than expected so far this year, and partly by changes in Statistics Sweden's population forecast and revised costs for various types of government consumption.
- Gross fixed capital formation in both 2017 and 2018 has been revised up considerably. For 2017, this is largely a result of growth in housing investment now being expected to be stronger. For 2018, it is due to high and rising capacity utilisation in the business sector (excluding housing) indicating higher investment than in the March forecast.
- Both employment growth and growth in the labour force have been adjusted up appreciably this year, due chiefly to stronger data for the first quarter than expected.
- The strong inflows of groups with a weak position in the labour market and substantial matching problems have prompted an upward revision of equilibrium unemployment by 0.1–0.2 percentage points in 2017–2018 (see Diagram 17). The labour market gap has therefore been adjusted up by 0.3 and 0.4 percentage points respectively in 2017 and 2018, despite only a marginal downward revision of unemployment.
- Lower growth in hourly wages so far this year and unexpectedly low wage drift have resulted in a slight downward adjustment of growth in hourly wages this year and next.
- CPIF inflation has been revised up by 0.2 percentage points in 2017, due mainly to prices having risen more quickly than expected in the first part of the year (see Diagram 18).

Table 2 Current forecast and revisions compared to the March 2017 forecast

Percentage change, unless otherwise indicated

	2017		2018	
	June 2017	Diff.	June 2017	Diff.
Global economy				
GDP, world	3.6	0.0	3.6	0.1
GDP, OECD	2.0	0.0	2.1	0.0
GDP, euro area	1.9	0.2	1.7	0.1
GDP, US	2.1	-0.2	2.4	-0.1
GDP, China	6.5	0.1	6.2	0.3
Federal funds target rate ^{1,2}	1.50	0.00	2.00	-0.25
ECB refi rate ^{1,2}	0.00	0.00	0.00	0.00
Oil price ³	51.5	-2.1	50.7	-3.4
CPI, OECD	2.3	0.1	2.2	0.0
Domestic economy				
GDP, calendar-adjusted	2.7	-0.1	2.5	0.3
GDP	2.5	-0.1	2.4	0.3
Household consumption	2.0	-0.4	2.2	-0.2
Government consumption	1.0	-0.4	0.7	-0.2
Gross fixed capital formation	5.5	1.8	4.0	1.0
Stockbuilding ⁴	-0.2	0.0	0.0	0.0
Exports	3.4	-0.6	4.2	0.5
Imports	3.2	-0.1	4.1	0.2
Labour market, inflation, interest rates etc.				
Hours worked ⁵	1.4	0.1	1.3	0.2
Employment	2.4	0.7	1.0	0.2
Unemployment ⁶	6.6	-0.1	6.4	-0.1
Labour market gap ⁷	0.4	0.3	0.9	0.4
Output gap ⁸	1.3	0.3	1.6	0.5
Productivity ⁵	1.4	0.0	1.2	0.1
Hourly earnings ⁹	2.7	-0.3	2.9	-0.2
CPI	1.7	0.2	1.6	0.0
CPIF	1.9	0.2	1.7	0.1
Repo rate ^{1,2}	-0.50	0.00	-0.25	0.00
10-year government bond yield ¹	0.6	-0.2	1.1	-0.3
Effective krona exchange rate index (KIX) ¹⁰	113.9	1.3	112.6	1.8
Current account balance ¹¹	5.2	-0.2	5.1	-0.1
Government net lending ¹¹	0.9	0.4	0.9	0.3

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

Note. The difference is between the current forecast and the March 2017 forecast. A positive value denotes an upward revision.

Source: NIER.

SPECIAL ANALYSIS

Short-run effects of fiscal policy on GDP and employment in Sweden

The Swedish economy is currently booming, but sooner or later it will return to operating below capacity. This makes it important for there to be scope for active fiscal policy, and for decision-makers to have an understanding of how different fiscal instruments affect the economy. This special analysis summarises the results of a study commissioned by the government in which the NIER assesses how different fiscal instruments impact on GDP and employment in the short run.¹ Government investment seems to have the highest fiscal multiplier, but the results of the study need to be interpreted with care as they are not significant at a 95 per cent confidence level.

RENEWED INTEREST IN FISCAL POLICY'S MACROECONOMIC EFFECTS

The eruption of the financial crisis and subsequent prolonged slump in Europe and the US have sparked a renaissance in studies of the stabilisation function of fiscal policy.² This is partly because monetary policy has proved unable to restore many economies to their full potential despite record-low and even negative central bank benchmark rates. This has turned the spotlight onto the extent to which fiscal policy can be used for economic stabilisation. Budget deficits rocketed in many countries at the beginning of the slump. Some therefore introduced austerity measures in the midst of the slump, and both in academia and at policy institutes there has been keen interest in the effects of this consolidation on GDP and employment.

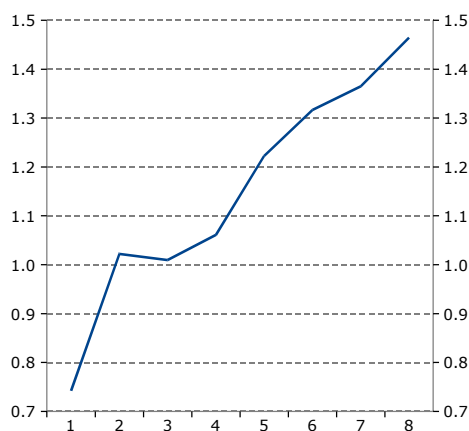
In an economy such as Sweden with a flexible exchange rate and an inflation target, monetary policy has prime responsibility for economic stabilisation. Interest rates are expected to remain low for many years to come, which means that the scope for monetary policy to deal with an economic slump may prove limited. Fiscal policy may therefore need to play a bigger role than normal in the next slump. Fiscal measures also generally take longer to decide and implement than monetary policy decisions. It is therefore important to be well-prepared when action does need to be taken. One element in these preparations is to gauge the effects that different fiscal instruments have on the

¹ This analysis summarises the results from Hjelm and Stockhammar (2016).

² A recent overview can be found in Ramey (2016).

Diagram 134 Cumulative GDP multiplier for consumption

Cumulative change in GDP in relation to cumulative change in consumption

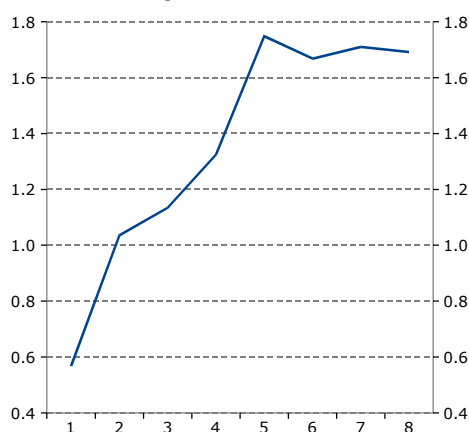


Note. The diagram refers to the quarterly cumulative change for the Baseline specification in Table 1.

Source: Hjelm and Stockhammar (2016).

Diagram 135 Cumulative GDP multiplier for investment

Cumulative change in GDP in relation to cumulative change in investment



Note. The diagram refers to the quarterly cumulative change for the Baseline specification in Table 1.

Source: Hjelm and Stockhammar (2016).

economy in both the short and the long run. This analysis focuses on the short-run stabilisation effects of fiscal policy.

GOVERNMENT INVESTMENT IMPACTS MOST ON GDP

The NIER's study analyses five different fiscal variables:

- Government consumption
- Government investment
- Transfers to households
- Indirect taxes on consumption goods
- Direct taxes on households

Statistics Sweden has recently published quarterly data from 1980 onwards for a relatively wide range of fiscal variables, making it possible to explore how fiscal policy has impacted on macroeconomic developments in Sweden.³ The study draws three general conclusions about the effects on GDP. It is important to bear in mind, however, that the point estimates are not, as a rule, significant at a 95 per cent confidence level, which means that the results are associated with considerable uncertainty.

First, fiscal instruments generally have Keynesian effects in Sweden. This means that higher government spending or lower taxes will push up GDP in the short run (see the row "Baseline" under the heading "Hjelm and Stockhammar" in Table 1, and Diagrams 134–137). The effect is greatest for government investment, followed by government consumption. Over the full period, the average cumulative multiplier for different econometric specifications, for a weighted average of the five fiscal variables listed above, is around 1 on both a one- and a two-year horizon (see Table 2).⁴

Second, there do not appear to be any general patterns in how the state of the business cycle influences the effect of fiscal instruments on GDP. The results are, however, sensitive to how a slump is defined. If we take an average of the results for different definitions of a slump, the effect on GDP is more or less the same in a slump as in calculations where slumps are not separated out (see the rows "Slump" and "Baseline" under the heading "Hjelm and Stockhammar" in Table 1). The baseline

³ Here we study the effect of fiscal "shocks". These shocks are identified using structural VAR models in line with Blanchard and Perotti (2002). See section 2.1 of Hjelm and Stockhammar (2016) for a more detailed description of the methodology.

⁴ The cumulative multiplier measures how much GDP increases in SEK over a period of, say, two years in relation to the fiscal variable, where the increase in the latter comprises the sum, in SEK, of increased expenditure and reduced taxation. For example, a cumulative multiplier of 1 means that an increase in government consumption of SEK 1 billion over a period of, say, two years will result in GDP increasing by the same amount during that period. See section 4.1 in Hjelm and Stockhammar (2016) for a more detailed definition of the cumulative multiplier.

comprises the linear effects where different states of the business cycle are not treated differently. Thus fiscal policy is equally potent whether applied in a boom or a bust.

Third, the estimated effects on GDP are generally slightly greater than an average of the estimates made in the international empirical literature.⁵ Two comparisons are made with previous studies. In the first, the results are compared with a meta-study which uses econometric methods to weight together the results of 98 studies and a total of 1,882 empirical estimates of the GDP effects of fiscal policy.⁶ The comparison is presented in Table 1 below in the rows labelled “Baseline”. As can be seen from the table, the effects on GDP are generally greater in the NIER’s study, especially in the case of government consumption and transfers.

Table 1 Cumulative GDP multipliers after eight quarters for the period 1993q1 to 2015q3

Cumulative change in GDP in relation to cumulative change in fiscal instruments

	Government consumption	Government investment	Transfers	Taxes
Gechert and Rannenberg (2014)				
Baseline	0.4	1.4	0.3	0.3
Slump	0.9	1	1.7	-0.5
Hjelm and Stockhammar (2016)				
Baseline	1.5	1.7	1.3	0.8
Slump	1.6	1.9	0.8	1.1

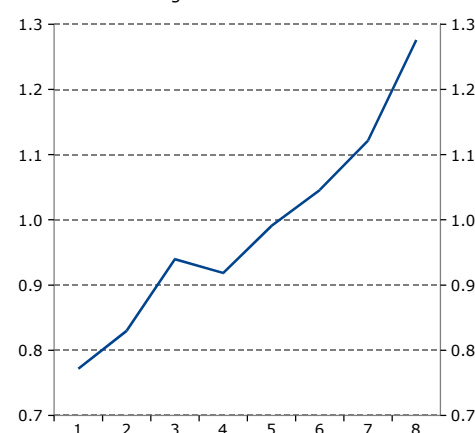
Note. This is a condensed version of Table 1 in Hjelm and Stockhammar (2016). The effects of indirect and direct taxes are weighted together in the “Taxes” column because Gechert and Rannenberg (2014) do not report them separately.

Source: Gechert and Rannenberg (2014), Hjelm and Stockhammar (2016).

The second comparison is based on a method developed by the IMF.⁷ As in the meta-study above, the results from the empirical literature are combined. In this case, however, countries are grouped into buckets (high, medium and low) according to the strength of fiscal policy’s GDP effects. This is done on the basis of factors that have been shown in empirical studies to influence how GDP reacts to fiscal policy, such as exchange rate regime,

Diagram 136 Cumulative GDP multiplier for transfers

Cumulative change in GDP in relation to cumulative change in transfers

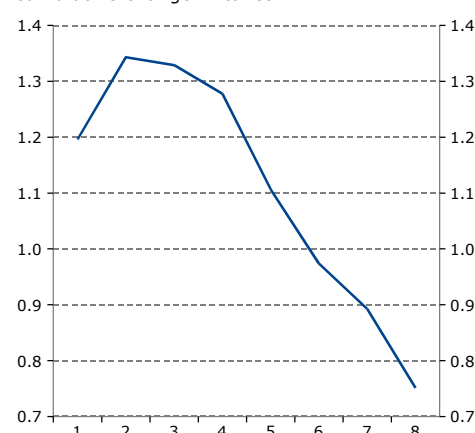


Note. The diagram refers to the quarterly cumulative change for the Baseline specification in Table 1.

Source: Hjelm and Stockhammar (2016).

Diagram 137 Cumulative GDP multiplier for taxes

Cumulative change in GDP in relation to cumulative change in taxes



Note. The diagram refers to the quarterly cumulative change for the Baseline specification in Table 1.

Source: Hjelm and Stockhammar (2016).

⁵ Studies on Swedish data are very limited, and those that are available are not directly comparable with the present study.

⁶ See Gechert and Rannenberg (2014).

⁷ See Batini et al. (2014).

trade openness, size of public sector and level of public debt. Sweden comes in at the lower end of the middle category, in other words the category where the GDP effects of fiscal policy are moderate.⁸ Thus this method indicates that the effects of fiscal policy in Sweden should be relatively small.

The GDP effect in the IMF analysis is an average change in fiscal policy comprising equal changes in spending and revenue. Table 2 compares this bucket approach with the results of the NIER's study.⁹ As in the comparison in Table 1, based on a different meta-study, the estimated multipliers for Sweden are higher than the average in previous studies.

Table 2 GDP multipliers for Sweden: IMF bucket approach compared with NIER study

Cumulative change in GDP in relation to cumulative change in fiscal policy

	Year 1	Year 2
IMF bucket approach in Batini et al. (2014)	0.4–0.6	0.48–0.72
Hjelm and Stockhammar (2016), average	1.1	1

Note. This is a condensed version of Table 3 in Hjelm and Stockhammar (2016). The second row is based on an average of the GDP effects of the five fiscal instruments and specifications with and without an output gap for the OECD countries.

Source: Batini et al. (2014), Hjelm and Stockhammar (2016).

GOVERNMENT INVESTMENT ALSO IMPACTS MOST ON EMPLOYMENT

The employment effects of fiscal policy are estimated using the same methods as for GDP above. There are several qualitative similarities with the results for GDP. As with GDP, the employment effects are, in principle, exclusively Keynesian – in other words employment rises (falls) with expansionary (contractionary) fiscal policy. Table 3 presents the percentage effect on employment of fiscal expansion equivalent to 1 per cent of GDP. As with GDP, investment has the greatest impact on employment.

The employment effects of government spending – consumption, investment and transfers – are greater in a slump. As can be seen from Table 3, this applies particularly to consumption. When no account is taken of the state of the business cycle

⁸ Thus there is no estimation of the effects of fiscal policy specifically on Swedish data.

⁹ It should be noted, however, that in Table 2, unlike in Table 1, there is no specification of how the multipliers are calculated in Batini et al. (2014). They are probably a combination of peak, impact and cumulative multipliers (see section 4.1 in Hjelm and Stockhammar (2016) for definitions). The NIER's study estimates only cumulative multipliers.

(“Baseline”), the employment effect of government consumption is neutral (despite the GDP effect being positive, see Table 1). In a slump, however, employment will rise by an average of 0.4 per cent when government consumption increases by 1 per cent of GDP, at both a one- and a two-year horizon. It can also be seen that government investment has the greatest impact on employment, both in the baseline case and in a slump. This was also the case with GDP (see Table 1).

There are far fewer studies analysing employment effects than GDP effects. Most also use more aggregated fiscal variables, such as total government expenditure, whereas the NIER analyses five disaggregated fiscal variables. In the studies available, all from outside Sweden, the effects on employment vary from 0 to 0.5 per cent, which is within the range reported in Table 3 below.¹⁰

Table 3 Effects on employment

Percentage change in employment with fiscal expansion equivalent to 1 per cent of GDP

	Con- sumption	Invest- ment	Trans- fers	Indirect taxes	Direct taxes
Baseline					
Year 1	0.0	0.4	0.2	0.2	0.1
Year 2	0.0	0.3	0.2	0.1	0.0
Slump					
Year 1	0.4	0.6	0.4	0.1	0.2
Year 2	0.4	0.4	0.3	0.1	0.1

Note. This is a condensed version of Tables 5 and 6 in Hjelm and Stockhammar (2016). The first row under “Baseline” is an average of the first and third rows (i.e. “4 quarters”) in the columns marked “(2)” in Table 5 in Hjelm and Stockhammar (2016). The second row under “Baseline” is an average of the second and fourth rows (i.e. “8 quarters”) in the columns marked “(2)” in Table 5 in Hjelm and Stockhammar (2016). The first row under “Slump” is an average of the first and third rows (i.e. “4 quarters”) in the columns marked (b) in Table 6 in Hjelm and Stockhammar (2016). The second row under “Slump” is an average of the second and fourth rows (i.e. “8 quarters”) in the columns marked (b) in Table 6 in Hjelm and Stockhammar (2016).

Source: Hjelm and Stockhammar (2016).

THE EFFECT OF DIFFERENT INSTRUMENTS CAN VARY

As can be seen from the tables, the estimates presented in Hjelm and Stockhammar (2016) are higher than in most other studies when it comes to the effect on GDP. The results need to be interpreted with care, however, because different model

¹⁰ See section 5.5 in Hjelm and Stockhammar (2016) for a comparison with other studies looking at employment.

specifications result in effects of different magnitudes, and the effects are not statistically significant.¹¹

Nor is it possible to conclude that a fiscal multiplier is the same for all types of instrument that affect a variable. An increase in government consumption in a labour-intensive area, such as elderly care, ought to have different short-run effects on employment to an increase in government consumption due to purchases of goods with a high import content. Institutional factors such as exchange rate regime, the central bank's room for manoeuvre, fiscal frameworks and confidence in central government finances ought also to affect the size of the multipliers. A change in these variables could therefore result in different fiscal multipliers. The structural effects of fiscal instruments, such as those on potential hours worked and productivity, depend on the specific design of the instruments. Structural effects may have some impact in the short run analysed here, but generally have most of their impact in the longer run.

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¹¹ Hjelm and Stockhammar (2016) present 95 per cent confidence intervals. There are also sensitivity analyses for different model specifications.

Tables and graphs

Data for additional variables and longer time series can be found on the NIER's website at www.konj.se/english/data-sets.

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The global economy

Table A1 Global output

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

	Weight 2016	2012	2013	2014	2015	2016	2017	2018
World		3.5	3.4	3.5	3.4	3.1	3.6	3.6
KIX weighted ¹	74.6	1.1	1.3	2.2	2.2	2.0	2.4	2.3
OECD	44.9	1.3	1.5	2.0	2.4	1.8	2.0	2.1
US	15.5	2.2	1.7	2.4	2.6	1.6	2.1	2.4
Euro area	11.8	-0.9	-0.2	1.3	1.9	1.7	1.9	1.7
Germany	3.3	0.7	0.6	1.6	1.5	1.8	1.9	1.8
France	2.3	0.2	0.6	1.0	1.0	1.1	1.3	1.5
Italy	1.9	-2.9	-1.7	0.2	0.7	1.0	1.1	0.9
Spain	1.4	-2.9	-1.7	1.4	3.2	3.2	2.8	2.4
Finland	0.2	-1.4	-0.8	-0.6	0.3	1.5	1.9	1.3
Japan	4.4	1.5	2.0	0.2	1.1	1.0	1.3	0.9
UK	2.3	1.3	1.9	3.1	2.2	1.8	1.7	1.4
Sweden	0.4	0.1	1.2	2.7	3.8	2.9	2.7	2.5
Norway	0.3	2.6	1.1	1.9	1.6	1.0	1.4	1.7
Denmark	0.2	0.2	0.9	1.7	1.6	1.3	1.8	1.7
Emerging markets ²	55.1	5.5	5.1	4.8	4.2	4.2	4.8	4.8
China	17.8	7.9	7.8	7.3	7.0	6.7	6.5	6.2
India	7.2	5.1	6.4	7.0	7.7	7.5	7.0	7.5
Brazil	2.6	1.9	3.0	0.5	-3.8	-3.6	0.4	1.5
GDP per capita								
US		1.5	1.0	1.6	1.9	0.9	1.4	1.6
Euro area		-1.1	-0.4	1.0	1.6	1.5	1.6	1.4
Japan		1.7	2.2	0.4	1.2	1.1	1.6	1.3
Market growth								
World ³		1.9	2.7	3.4	3.4	3.0	3.9	3.6

¹ KIX weighted GDP is the weighted average of GDP growth in the 32 countries included in the KIX effective krona exchange rate index. ² Emerging markets are defined here as countries that are not members of the OECD. ³ 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, Macrobond and NIER.

Table A2 Global inflation

Percentage change in CPI

	2011	2012	2013	2014	2015	2016	2017	2018
OECD	2.9	2.2	1.6	1.7	0.6	1.1	2.3	2.2
US	3.1	2.1	1.5	1.6	0.1	1.3	2.3	2.4
Euro area	2.7	2.5	1.3	0.4	0.0	0.2	1.6	1.4
Germany	2.5	2.1	1.6	0.8	0.1	0.4	1.7	1.5
France	2.3	2.2	1.0	0.6	0.1	0.3	1.4	1.3
Italy	2.9	3.3	1.3	0.2	0.1	-0.1	1.4	1.3
Spain	3.1	2.4	1.5	-0.2	-0.6	-0.3	2.1	1.5
Finland	3.3	3.2	2.2	1.2	-0.2	0.4	1.1	1.2
Japan	-0.3	-0.1	0.3	2.8	0.8	-0.1	0.6	0.9
UK	4.5	2.8	2.6	1.5	0.1	0.6	2.7	2.7
Sweden	1.4	0.9	0.4	0.2	0.7	1.1	1.8	1.4
Norway	1.2	0.4	2.0	1.9	2.0	3.9	2.2	2.1
Denmark	2.7	2.4	0.5	0.3	0.2	0.0	1.2	1.6
Emerging markets ¹								
China	5.6	2.6	2.6	1.9	1.4	2.0	1.6	2.5
India	8.9	9.3	10.9	6.4	5.9	4.9	4.0	5.0
Brazil	6.6	5.4	6.2	6.3	9.0	8.7	4.2	4.3

¹ 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: OECD, Eurostat, Macrobond and NIER.

Table A3 Selected indicators for the euro area

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

	Level 2016	2012	2013	2014	2015	2016	2017	2018
Household consumption expenditure	5 882	-1.2	-0.5	0.8	1.8	2.0	1.5	1.4
General government consumption expenditure	2 218	-0.3	0.3	0.7	1.3	1.8	1.0	1.1
Gross fixed capital formation	2 157	-3.3	-2.4	1.6	3.0	3.4	5.3	3.2
Stockbuilding ¹	12	-0.9	0.1	0.4	-0.2	-0.1	0.2	0.0
Exports	4 895	2.9	2.2	4.4	6.0	2.9	4.1	3.5
Imports	4 426	-0.6	1.4	4.9	6.1	4.2	6.0	3.8
GDP	10 738	-0.9	-0.2	1.3	1.9	1.7	1.9	1.7
HICP ²		2.5	1.3	0.4	0.0	0.2	1.6	1.4
Unemployment ³		11.4	12.0	11.6	10.9	10.0	9.3	8.9
Policy rate ⁴		0.75	0.25	0.05	0.05	0.00	0.00	0.00
10-year government bond yield ⁵		1.6	1.6	1.2	0.5	0.1	0.4	0.8
USD/EUR ⁶		1.29	1.33	1.33	1.11	1.11	1.10	1.10

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

Sources: ECB, Eurostat, Macrobond and NIER.

Table A4 Selected indicators for the US

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

	Level 2016	2012	2013	2014	2015	2016	2017	2018
Household consumption expenditure	12 758	1.5	1.5	2.9	3.2	2.7	2.4	2.3
General government consumption expenditure	2 655	-0.9	-2.4	-0.7	1.6	0.8	0.3	1.9
Gross fixed capital formation	3 636	6.4	3.1	4.3	3.7	0.7	4.4	4.5
Stockbuilding ¹	21	0.1	0.2	-0.1	0.2	-0.4	0.0	0.0
Exports	2 232	3.4	3.5	4.3	0.1	0.4	2.7	2.7
Imports	2 734	2.2	1.1	4.4	4.6	1.1	4.7	4.8
GDP	18 569	2.2	1.7	2.4	2.6	1.6	2.1	2.4
CPI ²		2.1	1.5	1.6	0.1	1.3	2.3	2.4
Unemployment ³		8.1	7.4	6.2	5.3	4.9	4.6	4.5
Policy rate ⁴		0.25	0.25	0.25	0.50	0.75	1.50	2.00
10-year government bond yield ⁵		1.8	2.4	2.5	2.1	1.8	2.3	2.7
USD/EUR ⁶		1.29	1.33	1.33	1.11	1.11	1.10	1.10

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

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

Table A5 Scenario for the global economy

Percentage change and per cent, respectively

	2014	2015	2016	2017	2018	2019	2020	2021
GDP, OECD	2.0	2.4	1.8	2.0	2.1	1.9	1.7	1.8
GDP, euro area	1.3	1.9	1.7	1.9	1.7	1.5	1.4	1.4
GDP, US	2.4	2.6	1.6	2.1	2.4	2.3	1.7	1.7
GDP, emerging markets	4.8	4.2	4.2	4.8	4.8	4.8	4.9	4.9
GDP, global	3.5	3.4	3.1	3.6	3.6	3.6	3.5	3.6
HICP, euro area	0.4	0.0	0.2	1.6	1.4	1.6	1.8	1.9
CPI, US	1.6	0.1	1.3	2.3	2.4	2.5	2.4	2.3
Policy rate, euro area	0.05	0.05	0.00	0.00	0.00	0.50	1.00	1.50
Policy rate, US	0.25	0.50	0.75	1.50	2.00	2.50	3.00	3.00
Policy rate, KIX6-weighted	0.16	0.02	-0.14	-0.05	0.17	0.55	1.03	1.54
Overnight rate, euro area (Eonia)	0.0	-0.2	-0.4	-0.3	-0.1	0.3	0.8	1.3

Note. Policy rates refer to year-end values. KIX6-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, Macrobond and NIER.

The Swedish Economy 2017–2018

Table A6 GDP by expenditure

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

	Level 2016	2012	2013	2014	2015	2016	2017	2018
Household consumption expenditure ¹	1 949	0.8	1.9	2.1	2.7	2.4	2.0	2.2
Goods	895	1.1	0.8	2.6	3.7	3.5	1.3	1.8
Services excl. housing	624	0.2	3.1	3.1	2.9	2.5	1.7	2.2
Housing	381	0.4	1.3	2.1	2.5	2.8	3.8	3.1
General government consumption expenditure	1 144	1.1	1.3	1.5	2.5	2.9	1.0	0.7
Central government	300	2.5	3.6	1.7	2.9	2.9	0.6	0.7
Local government	844	0.6	0.4	1.5	2.4	2.9	1.1	0.7
Gross fixed capital formation ²	1 055	−0.2	0.6	5.5	7.0	5.3	5.5	4.0
Business sector excl. housing	647	2.3	0.7	4.2	6.6	1.2	2.3	4.1
Industry	205	−3.1	1.8	8.8	8.4	−2.5	0.0	5.5
Other goods producers	108	4.7	1.4	3.1	6.4	−0.8	3.0	0.5
Service producers excl. housing	335	4.8	−0.3	1.8	5.5	4.3	3.5	4.4
Housing	222	−11.8	0.9	15.6	16.1	16.2	15.9	3.4
General government	180	1.7	−0.3	1.6	−0.5	8.7	4.3	4.4
Domestic demand excl. stockbuilding	4 148	0.6	1.4	2.7	3.7	3.3	2.6	2.3
Stockbuilding ³	25	−1.1	0.2	0.2	0.3	0.1	−0.2	0.0
Total domestic demand	4 173	−0.6	1.6	2.9	4.0	3.3	2.3	2.2
Exports	1 943	1.0	−0.8	5.3	5.6	3.5	3.4	4.2
Exports of goods	1 312	0.3	−2.9	3.1	3.3	3.5	5.0	3.9
Processed goods	1 047	−2.9	−0.9	1.6	3.7	3.0	6.0	4.2
Raw materials	265	12.2	−9.4	8.6	2.1	5.3	0.8	2.9
Exports of services	632	3.0	5.0	10.4	10.9	3.5	0.2	4.7
Total demand	6 116	−0.1	0.8	3.6	4.5	3.3	2.7	2.8
Imports	1 741	0.5	−0.1	6.3	5.5	3.8	3.2	4.1
Imports of goods	1 200	−0.8	−1.7	4.6	5.6	5.3	3.5	4.4
Processed goods	897	−2.9	−0.1	4.8	5.9	4.6	5.0	5.2
Raw materials	303	4.3	−5.2	4.2	4.8	7.3	−1.0	1.9
Imports of services	541	4.3	4.1	10.4	5.3	0.6	2.4	3.4
Net exports ³	202	0.3	−0.3	−0.2	0.3	0.0	0.3	0.2
GDP	4 375	−0.3	1.2	2.6	4.1	3.2	2.5	2.4
GDP per capita ⁴	441	−1.0	0.4	1.6	3.0	1.9	1.1	1.2

¹ Including non-profit institutions serving households and the net of household consumption abroad and foreign consumption in Sweden. ² Including non-profit institutions serving households. ³ Change in per cent of GDP the previous year. ⁴ SEK, thousand, current prices, and percentage change, constant prices, respectively.

Sources: Statistics Sweden and NIER.

Table A7 Household income, consumption expenditure and saving

SEK billion, current prices, and percentage change, respectively

	Level 2016	2015	2016	2017	2018	2019	2020	2021
Total earnings, adjusted for external transactions	1 740	4.3	4.7	4.5	4.3	4.3	3.8	3.5
Hourly earnings (according to national accounts) ¹		3.2	2.6	2.9	2.9	3.3	3.4	3.5
Hours worked ^{1,2}		1.2	2.3	1.5	1.3	1.0	0.4	0.1
Transfers from government sector, net	611	2.6	3.0	2.7	2.8	3.0	3.4	3.6
Property income, net	262	14.1	-1.6	2.7	2.3	4.4	1.2	6.0
Other income, net	308	4.5	9.2	5.9	4.7	4.9	5.2	5.1
Income before taxes³	2 920	4.8	4.2	4.1	3.8	4.1	3.6	3.9
Direct taxes ⁴	796	-1.4	-0.6	-0.1	0.1	0.3	0.0	0.2
Disposable income	2 124	3.4	3.6	4.0	4.0	4.4	3.6	4.1
Consumer prices ⁵		1.0	1.0	2.0	1.6	1.8	2.1	2.0
Real disposable income	2 124	2.4	2.5	2.0	2.4	2.6	1.5	2.1
Per capita ⁶	214	1.3	1.2	0.6	1.2	1.6	0.5	1.0
Consumption expenditure⁷	1 949	2.7	2.4	2.0	2.2	2.1	2.2	2.2
Saving ⁸	374	16.2	16.1	16.0	15.9	16.2	15.4	15.1
Own saving ⁸	175	8.1	8.2	8.3	8.4	8.9	8.2	8.1
Net lending ⁸	297	13.8	12.8	12.7	12.6	12.9	12.1	11.8

¹ Calendar-adjusted values. ² Employees only. ³ Growth in income before taxes is calculated as a weighted sum of the growth rates for total earnings, transfers, capital income and other income. ⁴ Change in per cent of income before taxes, with reverse sign. ⁵ Implicit price index for household consumption expenditure. ⁶ SEK thousand. ⁷ Constant prices, reference year 2015.

⁸ SEK billion, current prices, and per cent of disposable income, respectively. Own saving excludes occupational and premium pensions.

Sources: Statistics Sweden and NIER.

Table A8 Current account and net lending

SEK billion, current prices, and per cent, respectively

	2011	2012	2013	2014	2015	2016	2017	2018
Net exports, goods	125	138	122	123	126	112	134	138
Net exports, services	47	44	48	47	73	90	76	86
Earnings, net	17	18	17	18	16	13	14	14
Investment income, net	57	67	63	63	45	61	83	81
Transfers etc., net	-54	-56	-58	-62	-64	-55	-65	-75
Current account balance	192	210	192	190	196	222	240	245
<i>Per cent of GDP</i>	<i>5.3</i>	<i>5.7</i>	<i>5.1</i>	<i>4.8</i>	<i>4.7</i>	<i>5.1</i>	<i>5.2</i>	<i>5.1</i>
Capital transfers	-6	-6	-9	-5	-8	-3	-4	-5
Net lending	186	204	183	184	187	219	236	241
<i>Per cent of GDP</i>	<i>5.1</i>	<i>5.5</i>	<i>4.9</i>	<i>4.7</i>	<i>4.5</i>	<i>5.0</i>	<i>5.2</i>	<i>5.0</i>

Sources: Statistics Sweden and NIER.

Table A9 GNI

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

	Level 2016	2012	2013	2014	2015	2016	2017	2018
GNI	4 451	1.0	2.1	4.4	5.5	4.9	5.0	4.1
Deflator, domestic use		1.1	1.1	1.7	1.7	1.4	2.4	1.8
Real GNI		-0.1	1.0	2.6	3.7	3.4	2.6	2.3
Population ¹	9 923	0.7	0.9	1.0	1.1	1.3	1.4	1.1
Real GNI per capita²	449	-0.8	0.2	1.6	2.6	2.1	1.2	1.1

¹Thousands, ²SEK thousand.

Sources: Statistics Sweden and NIER.

Table A10 Production

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

	Level 2016	2012	2013	2014	2015	2016	2017	2018
Goods producers	1 050	-3.7	-1.8	0.9	4.8	1.2	2.5	2.9
Of which: Industry	652	-6.5	-1.1	-0.4	3.8	0.5	2.3	3.3
Construction	234	-5.3	-3.8	3.1	9.1	4.1	5.4	2.8
Service producers	1 971	2.3	3.9	4.5	4.2	3.9	3.8	3.1
Business sector	3 020	0.0	1.8	3.2	4.4	2.9	3.4	3.0
General government	782	1.4	-0.3	1.2	0.3	1.9	0.9	0.8
GDP at basic prices¹	3 854	0.3	1.3	2.8	3.5	2.7	2.9	2.5
Taxes/subsidies on products	510	-1.3	0.5	2.2	6.3	4.5	1.6	1.8
GDP at market prices	4 364	0.1	1.2	2.7	3.8	2.9	2.7	2.5

¹Including production in non-profit institutions serving households.

Note. Production refers here to value added.

Sources: Statistics Sweden and NIER.

Table A11 Hours worked

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

	Level 2016	2012	2013	2014	2015	2016	2017	2018
Goods producers	1 914	-0.7	-0.6	0.3	0.4	-0.6	0.6	0.6
Of which: Industry	1 002	-3.1	-2.4	-1.1	-0.9	-1.1	0.4	0.0
Construction	580	2.8	0.7	2.5	2.1	1.3	3.0	1.6
Services producers	3 659	0.8	0.8	2.5	1.5	2.2	2.1	2.0
Business sector	5 573	0.3	0.3	1.7	1.1	1.2	1.6	1.5
General government	2 141	1.6	0.6	2.1	0.6	3.1	1.1	0.8
Total economy¹	7 882	0.7	0.4	1.8	1.0	1.7	1.4	1.3

¹Including non-profit institutions serving households.

Sources: Statistics Sweden and NIER.

Table A12 Productivity

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

	Level 2016	2012	2013	2014	2015	2016	2017	2018
Goods producers	548	-3.1	-1.2	0.6	4.4	1.8	1.9	2.3
Of which: Industry	651	-3.5	1.4	0.7	4.8	1.6	1.9	3.2
Construction	403	-7.9	-4.4	0.6	6.9	2.7	2.3	1.1
Service producers	539	1.4	3.0	2.0	2.6	1.7	1.7	1.1
Business sector	542	-0.3	1.5	1.5	3.2	1.7	1.8	1.5
General government	365	-0.2	-1.0	-0.9	-0.3	-1.2	-0.2	0.0
Total economy¹	489	-0.4	0.9	1.0	2.5	1.0	1.4	1.2

¹ Including production in non-profit institutions serving households.

Sources: Statistics Sweden and NIER.

Table A13 The labour market

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

	Level 2016	2012	2013	2014	2015	2016	2017	2018
Hours worked ¹	7 882	0.7	0.4	1.8	1.0	1.7	1.4	1.3
Average hours worked for employed ²	30.9	0.0	-0.6	0.3	-0.4	0.2	-0.9	0.3
Number of employed	4 910	0.7	1.0	1.4	1.4	1.5	2.4	1.0
Employment rate ³		65.5	65.7	66.2	66.7	67.1	67.9	68.1
Labour force	5 277	0.9	1.1	1.3	0.8	1.0	2.0	0.8
Labour force participation rate ⁴		71.1	71.5	71.9	72.0	72.1	72.7	72.8
Unemployment ⁵	366	8.0	8.0	7.9	7.4	6.9	6.6	6.4
Population aged 15–74	7 323	0.6	0.6	0.7	0.7	0.9	1.1	0.7

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

Sources: Statistics Sweden and NIER.

Table A14 Hourly earnings according to the short-term earnings statistics

Per cent and percentage change, respectively

	Weight 2016	2012	2013	2014	2015	2016	2017	2018
Business sector	68	3.2	2.3	2.9	2.3	2.3	2.5	2.9
Industry	16	3.9	2.0	2.5	2.4	2.1	2.2	2.9
Construction	7	2.6	3.0	3.1	1.6	2.7	2.7	2.9
Services	46	3.0	2.3	2.9	2.3	2.3	2.5	2.9
Local government	25	2.7	2.9	2.8	2.7	2.7	3.4	3.1
Central government	6	2.1	2.6	2.3	2.6	2.3	2.6	2.9
Total	100	3.0	2.5	2.8	2.4	2.4	2.7	2.9
Real hourly earnings (CPI) ¹		2.1	2.5	3.0	2.5	1.4	1.0	1.3
Real hourly earnings (CPIF) ²		2.0	1.6	2.3	1.6	1.0	0.8	1.3

¹ Deflated by the CPI. ² Deflated by the CPI with constant mortgage rates (CPIF).

Sources: National Mediation Office, Statistics Sweden and NIER.

Table A15 Hourly earnings and labour costs in the business sector according to the national accounts

SEK per hour, per cent and percentage change, respectively, calendar-adjusted values

	Level 2016	2012	2013	2014	2015	2016	2017	2018
Hourly earnings	237	3.1	1.7	2.0	3.0	2.8	2.8	2.9
Employers' social contributions ¹ (per cent of earnings)		41.0	41.4	41.4	43.0	43.8	44.2	43.9
Hourly labour costs ²	340	3.4	2.0	2.0	4.2	3.3	3.1	2.7
Productivity ³		-0.6	1.2	1.4	2.8	1.0	1.7	1.5
Unit labour costs		4.0	0.8	0.5	1.3	2.3	1.4	1.2

¹ Employers' social contributions and payroll taxes. ² Earnings and employers' social contributions. ³ Value added divided by hours worked by employees.

Sources: Statistics Sweden and NIER.

Table A16 Supply and use price deflators

Per cent and percentage change, respectively

	Weight 2016	2012	2013	2014	2015	2016	2017	2018
GDP	71.5	1.1	1.1	1.8	2.0	1.4	2.2	1.8
General government ^{1,2}	13.7	3.2	3.6	2.6	3.5	2.9	3.3	2.9
Business sector ²	49.5	0.5	0.4	1.7	1.9	1.0	1.6	1.5
Product taxes, net	8.3	0.9	0.8	0.9	0.6	1.3	3.9	1.6
Imports	28.5	-1.1	-2.8	1.8	1.0	-1.7	3.9	-0.4
Processed goods	14.7	-2.8	-3.7	2.4	3.9	-1.4	2.3	-0.9
Raw materials	5.0	0.2	-3.6	-1.5	-12.1	-4.7	10.6	-0.9
Services	8.8	0.9	-0.4	3.2	4.9	-0.5	2.9	0.9
Supply/use³	100.0	0.4	-0.1	1.8	1.7	0.5	2.7	1.1
General government consumption expenditure	18.7	2.6	2.6	2.4	2.7	2.3	3.2	2.8
Household consumption expenditure	31.9	0.5	0.7	1.1	1.0	1.0	2.0	1.6
Gross fixed capital formation	17.2	0.8	0.3	2.2	1.9	1.3	2.1	1.2
Exports	31.8	-1.0	-2.5	2.0	1.8	-1.5	3.3	-0.1
Processed goods	17.1	-1.2	-3.3	2.8	3.9	-1.4	1.7	-0.8
Raw materials	4.3	-3.1	-2.7	-0.4	-8.0	-3.6	12.6	0.4
Services	10.3	0.9	-0.9	1.8	3.0	-0.6	2.0	0.7

¹ Including non-profit institutions serving households. ² Value added price deflator calculated at basic prices. ³ Including stockbuilding.

Sources: Statistics Sweden and NIER.

Table A17 Business sector prices, costs and profits

SEK billion, percentage change and per cent, respectively

	Level 2016	2012	2013	2014	2015	2016	2017	2018
Value added, constant prices ¹		-0.4	1.8	3.1	4.6	3.2	3.1	2.9
Value-added deflator		0.5	0.4	1.7	1.9	1.0	1.6	1.5
Value added, current prices ²	3 022	0.1	2.1	5.0	6.4	4.1	4.7	4.4
Hours worked, employees		-0.3	0.6	1.5	2.1	2.6	1.1	1.3
Hourly labour costs ³	338	4.3	2.0	2.3	3.6	2.7	3.7	3.0
Total labour costs ⁴	1 767	4.0	2.6	3.8	5.8	5.3	4.8	4.3
Gross profit	1 255	-4.9	1.4	6.6	7.2	2.4	4.4	4.6
Profit share		41.5	41.2	41.9	42.2	41.5	41.4	41.5
Adjusted profit share ⁵		33.9	33.7	34.5	35.4	34.9	34.9	35.1

¹ Calculated at basic prices. ² Calculated at factor prices. ³ SEK. ⁴ Including wage-related other taxes on production for employees.
⁵ 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 A18 Consumer prices

Per cent and percentage change, respectively

	Weight 2017	2012	2013	2014	2015	2016	2017	2018
CPI	100	0.9	0.0	-0.2	0.0	1.0	1.7	1.6
Mortgage interest costs, mortgage interest rate		-0.5	-14.7	-11.5	-20.8	-13.1	-3.1	-0.2
CPIF	100	1.0	0.9	0.5	0.9	1.4	1.9	1.7
Goods	44	-0.3	0.2	-0.1	1.2	0.4	0.4	0.5
Services	30	1.7	0.8	0.5	1.1	2.0	2.7	2.5
Housing excl. mortgage interest costs and energy	15	2.6	2.0	1.7	1.5	1.9	1.4	1.6
Energy	7	0.2	-1.8	-2.5	-4.9	1.3	4.7	1.9
Mortgage interest costs, capital stock	4	5.9	5.2	5.0	5.4	5.8	9.3	7.5
CPIF excl. energy	93	1.0	1.1	0.7	1.4	1.4	1.7	1.6
HICP		0.9	0.4	0.2	0.7	1.1	1.8	1.4
Crude oil (Brent) ¹		111.8	108.8	99.6	53.5	45.1	51.5	50.7

¹ Dollars per barrel, annual average.

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

Sources: Intercontinental Exchange, Statistics Sweden, Macrobond and NIER.

Scenario for the Swedish economy 2017–2021

Table A19 Resource utilisation

Percentage change, calendar-adjusted values, unless otherwise indicated

	2014	2015	2016	2017	2018	2019	2020	2021
Labour market								
Equilibrium unemployment ¹	6.7	6.7	6.7	6.8	6.9	6.9	7.0	6.9
Actual unemployment ²	7.9	7.4	6.9	6.6	6.4	6.4	6.5	6.7
Potential hours worked	1.0	0.9	0.8	0.7	0.8	0.8	0.6	0.6
Of which: Potential employment	1.1	1.0	1.0	1.0	0.8	0.5	0.5	0.6
Actual hours worked	1.8	1.0	1.7	1.4	1.3	1.0	0.4	0.1
Labour market gap ³	-1.2	-1.1	-0.2	0.4	0.9	1.2	0.9	0.3
Productivity								
Potential productivity	1.1	1.2	1.0	1.2	1.4	1.3	1.4	1.5
Of which: Potential productivity, business sector	1.6	1.6	1.6	1.7	1.8	1.8	1.8	1.9
Actual productivity	1.0	2.8	1.2	1.2	1.1	0.8	1.2	1.5
Productivity gap ⁴	-1.0	0.6	0.8	0.9	0.6	0.1	-0.1	0.0
GDP								
Potential GDP	2.0	2.1	1.8	2.0	2.2	2.1	2.1	2.1
Actual GDP	2.7	3.8	2.9	2.7	2.5	1.8	1.6	1.6
Output gap ⁵	-2.1	-0.5	0.6	1.3	1.6	1.2	0.8	0.3

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

	2014	2015	2016	2017	2018	2019	2020	2021
Population	1.0	1.1	1.3	1.4	1.1	1.0	1.0	1.1
Population aged 15–74	0.7	0.7	0.9	1.1	0.7	0.5	0.5	0.5
GDP ¹	2.7	3.8	2.9	2.7	2.5	1.8	1.6	1.6
GDP per capita ¹	1.7	2.7	1.6	1.3	1.3	0.7	0.6	0.6
Hours worked ¹	1.8	1.0	1.7	1.4	1.3	1.0	0.4	0.1
Productivity	1.0	2.5	1.0	1.4	1.2	0.8	1.2	1.5
Labour force	1.3	0.8	1.0	2.0	0.8	0.4	0.4	0.4
Employment	1.4	1.4	1.5	2.4	1.0	0.4	0.3	0.2
Employment rate ²	66.2	66.7	67.1	67.9	68.1	68.1	68.0	67.7
Unemployment ³	7.9	7.4	6.9	6.6	6.4	6.4	6.5	6.7
Hourly earnings ⁴	2.8	2.4	2.4	2.7	2.9	3.3	3.4	3.5
Hourly labor cost ¹	1.9	4.1	3.1	3.2	2.8	3.3	3.4	3.5
Unit labour cost	1.0	1.8	2.6	1.8	1.5	2.5	2.2	1.9
CPI	-0.2	0.0	1.0	1.7	1.6	2.3	3.2	2.6
CPIF	0.5	0.9	1.4	1.9	1.7	1.9	2.1	2.0
Government net lending ⁵	-1.5	0.3	0.9	0.9	0.9	1.0	0.8	0.6
Structural net lending ⁶	-0.7	-0.1	0.5	0.4	0.5	0.5	0.5	0.5

¹ Calendar-adjusted values. ² Per cent of population aged 15–74. ³ Per cent of labour force. ⁴ According to the short-term earnings statistics. ⁵ Per cent of GDP. ⁶ Per cent of potential GDP.

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

Table A21 GDP and demand

Percentage change, constant prices, calendar-adjusted values

	2014	2015	2016	2017	2018	2019	2020	2021
Household consumption expenditure	2.2	2.6	2.3	2.0	2.3	2.1	2.1	2.2
General government consumption expenditure	1.7	2.2	2.5	1.3	0.8	1.0	1.3	1.4
Gross fixed capital formation	5.7	6.6	4.9	5.9	4.1	2.7	1.6	1.4
<i>Domestic demand excl. stockbuilding</i>	<i>2.8</i>	<i>3.5</i>	<i>3.0</i>	<i>2.8</i>	<i>2.4</i>	<i>1.9</i>	<i>1.8</i>	<i>1.8</i>
Stockbuilding ¹	0.2	0.2	0.0	-0.2	0.0	0.0	0.0	0.0
<i>Total domestic demand</i>	<i>3.0</i>	<i>3.7</i>	<i>3.0</i>	<i>2.6</i>	<i>2.3</i>	<i>1.9</i>	<i>1.8</i>	<i>1.8</i>
Exports	5.5	5.2	3.0	3.9	4.4	3.5	3.3	3.3
<i>Total demand</i>	<i>3.8</i>	<i>4.2</i>	<i>3.0</i>	<i>3.0</i>	<i>3.0</i>	<i>2.4</i>	<i>2.3</i>	<i>2.3</i>
Imports	6.5	5.0	3.3	3.6	4.3	4.1	3.9	3.8
<i>Net exports¹</i>	<i>-0.2</i>	<i>0.3</i>	<i>0.0</i>	<i>0.3</i>	<i>0.2</i>	<i>-0.1</i>	<i>-0.1</i>	<i>-0.1</i>
GDP	2.7	3.8	2.9	2.7	2.5	1.8	1.6	1.6

¹ 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

	2014	2015	2016	2017	2018	2019	2020	2021
At year-end								
Repo rate	0.00	-0.35	-0.50	-0.50	-0.25	0.50	1.50	1.75
Annual average								
Repo rate	0.5	-0.3	-0.5	-0.5	-0.4	0.0	1.0	1.6
5-year government bond yield	0.9	0.2	-0.2	0.0	0.6	1.4	2.1	2.6
10-year government bond yield	1.7	0.7	0.5	0.6	1.1	1.7	2.2	2.7
Effective krona exchange rate index (KIX)	106.8	112.6	111.7	113.9	112.6	110.5	108.3	106.1
EUR exchange rate	9.1	9.4	9.5	9.6	9.6	9.4	9.2	9.0
USD exchange rate	6.9	8.4	8.6	8.8	8.7	8.6	8.4	8.3

Sources: Sveriges Riksbank, Macrobond and NIER.

Public finances 2017–2021

Table A23 General government finances

SEK billion and percentage of GDP, respectively, current prices

	2014	2015	2016	2017	2018	2019	2020	2021
Revenue	1 905	2 049	2 168	2 256	2 343	2 432	2 528	2 628
<i>Per cent of GDP</i>	48.4	49.0	49.5	49.3	49.1	49.2	49.2	49.3
Taxes and duties	1 671	1 804	1 917	2 002	2 078	2 155	2 234	2 315
<i>Per cent of GDP</i>	42.4	43.2	43.8	43.7	43.6	43.6	43.5	43.4
<i>Tax-to-GDP ratio¹</i>	42.6	43.3	44.0	43.9	43.7	43.7	43.6	43.5
Other revenue	173	182	184	188	195	202	210	218
Property income	62	62	66	66	69	75	84	94
Expenditure	1 966	2 037	2 127	2 215	2 300	2 381	2 484	2 594
<i>Per cent of GDP</i>	49.9	48.7	48.6	48.4	48.2	48.2	48.3	48.6
Consumption expenditure	1 032	1 086	1 144	1 192	1 234	1 280	1 334	1 393
Transfers	730	749	765	793	825	850	880	912
Households	588	604	623	640	658	677	700	726
Corporations	73	74	82	84	87	90	93	97
Abroad	69	71	61	69	80	83	86	89
Capital formation	171	176	191	205	218	225	233	242
Property expenditure	33	26	27	25	24	26	37	48
Net lending	-61	12	41	41	43	51	43	34
<i>Per cent of GDP</i>	-1.5	0.3	0.9	0.9	0.9	1.0	0.8	0.6
Primary net lending	-90	-24	1	0	-2	3	-3	-13
<i>Per cent of GDP</i>	-2.3	-0.6	0.0	0.0	-0.1	0.1	-0.1	-0.2
Maastricht debt	1 755	1 837	1 820	1 797	1 778	1 764	1 766	1 781
<i>Per cent of GDP</i>	44.6	43.9	41.6	39.2	37.3	35.7	34.4	33.4
GDP, current prices	3 937	4 181	4 375	4 580	4 771	4 945	5 139	5 335
Potential GDP, current prices	4 022	4 201	4 348	4 520	4 696	4 885	5 100	5 319
Net financial wealth	777	800	919	1 118	1 157	1 254	1 343	1 424
<i>Per cent of GDP</i>	19.7	19.1	21.0	24.4	24.3	25.4	26.1	26.7

¹ 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

	2014	2015	2016	2017	2018	2019	2020	2021
Revenue	974	1 066	1 138	1 179	1 218	1 257	1 296	1 338
Taxes and duties	839	928	995	1 037	1 072	1 105	1 136	1 168
Property income	24	22	24	22	23	24	27	31
Other revenue	112	115	119	120	123	128	133	138
Expenditure	1 023	1 052	1 087	1 127	1 162	1 196	1 245	1 298
Transfers	632	657	677	707	728	747	773	802
Old-age pension system ¹	22	23	25	25	24	24	25	25
Local government sector	203	220	247	264	266	272	281	292
Households	295	300	300	303	310	318	329	341
Corporations	47	46	48	50	52	54	56	58
Abroad	66	68	57	66	77	79	82	85
Consumption expenditure	275	286	296	304	313	324	337	350
Capital formation	88	87	92	97	103	107	112	116
Property expenditure	27	22	21	19	18	18	23	30
Of which interest expenditure	23	17	16	14	12	13	18	24
Net lending	-49	13	51	52	56	61	52	39
Per cent of GDP	-1.2	0.3	1.2	1.1	1.2	1.2	1.0	0.7
Central government debt	1 347	1 352	1 292	1 247	1 207	1 174	1 152	1 144
Per cent of GDP	34.2	32.3	29.5	27.2	25.3	23.7	22.4	21.4
Net financial wealth	-415	-423	-386	-320	-260	-181	-110	-50
Per cent of GDP	-10.5	-10.1	-8.8	-7.0	-5.5	-3.7	-2.1	-0.9

¹ 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

	2014	2015	2016	2017	2018	2019	2020	2021
Revenue	264	278	292	304	314	326	338	352
Social insurance contributions	214	224	234	245	255	265	276	285
Central government's old-age pension contributions	22	23	25	25	24	24	25	25
Property income	27	29	31	33	34	35	36	39
Other revenue	1	1	2	2	2	2	2	2
Expenditure	260	270	288	303	313	324	335	347
Income pensions	255	265	282	296	307	317	328	340
Property expenditure	0	0	0	0	0	0	0	0
Other expenses	5	5	6	6	6	6	7	7
Net lending	4	8	3	1	1	3	3	5
Per cent of GDP	0.1	0.2	0.1	0.0	0.0	0.1	0.1	0.1
Net financial wealth	1 201	1 247	1 348	1 488	1 475	1 498	1 521	1 547
Per cent of GDP	30.5	29.8	30.8	32.5	30.9	30.3	29.6	29.0

Sources: Statistics Sweden and NIER.

Table A26 Local government finances

SEK billion and percentage of GDP, respectively, current prices

	2014	2015	2016	2017	2018	2019	2020	2021
Revenue	904	959	1 021	1 073	1 110	1 155	1 210	1 267
Taxes	603	636	672	704	734	767	803	842
Municipal property tax	16	16	16	17	18	18	19	20
Central government grants incl. VAT compensation	202	219	242	263	264	270	280	291
Property income	13	12	12	12	12	16	20	24
Other revenue	70	77	79	78	82	84	87	90
<i>Average municipal tax rate¹</i>	<i>31.86</i>	<i>31.99</i>	<i>32.10</i>	<i>32.12</i>	<i>32.17</i>	<i>32.25</i>	<i>32.51</i>	<i>32.84</i>
Expenditure	919	969	1 035	1 084	1 125	1 167	1 222	1 278
Transfers	76	79	87	86	88	90	93	97
Households	41	41	43	43	43	44	46	47
Other	35	37	44	43	44	46	48	49
Consumption expenditure	753	796	844	885	917	951	994	1 038
Capital formation	83	89	99	108	115	118	122	125
Property expenditure	8	5	5	5	6	8	13	17
Net lending	-15	-10	-14	-12	-14	-12	-12	-11
<i>Per cent of GDP</i>	<i>-0.4</i>	<i>-0.2</i>	<i>-0.3</i>	<i>-0.3</i>	<i>-0.3</i>	<i>-0.2</i>	<i>-0.2</i>	<i>-0.2</i>
Net financial wealth	-9	-24	-44	-49	-57	-63	-69	-72
<i>Per cent of GDP</i>	<i>-0.2</i>	<i>-0.6</i>	<i>-1.0</i>	<i>-1.1</i>	<i>-1.2</i>	<i>-1.3</i>	<i>-1.3</i>	<i>-1.4</i>

¹ Per cent.

Sources: Statistics Sweden and NIER.

Table A27 General government revenue

Per cent of GDP

	2014	2015	2016	2017	2018	2019	2020	2021
Direct household taxes	15.2	15.5	15.8	15.8	15.7	15.6	15.5	15.5
Direct business taxes	2.6	3.0	2.7	2.5	2.5	2.5	2.5	2.5
Employers' social contributions ¹	11.8	11.7	12.1	12.2	12.1	12.2	12.2	12.2
VAT	9.0	9.1	9.3	9.4	9.4	9.4	9.4	9.5
Excise	2.3	2.3	2.2	2.2	2.2	2.2	2.2	2.2
Other taxes	1.8	1.8	1.8	1.8	1.8	1.8	1.7	1.7
Tax-to-GDP ratio²	42.6	43.3	44.0	43.9	43.7	43.7	43.6	43.5
EU taxes ³	-0.1	-0.2	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1
Other revenue ⁴	4.4	4.4	4.2	4.1	4.1	4.1	4.1	4.1
General government primary revenue	46.8	47.5	48.0	47.8	47.7	47.7	47.6	47.5
Property income	1.6	1.5	1.5	1.4	1.4	1.5	1.6	1.8
Total revenue	48.4	49.0	49.5	49.3	49.1	49.2	49.2	49.3

¹ Employers' social contributions, contributions from the self-employed and special payroll tax. ² The tax-to-GDP ratio is defined as total taxes, including EU taxes, divided by GDP. ³ Taxes paid to the EU are included in the tax-to-GDP ratio but not in general government revenue. ⁴ Including transfers from abroad and from unemployment insurance funds.

Sources: Statistics Sweden and NIER.

Table A28 General government expenditure

Per cent of GDP

	2014	2015	2016	2017	2018	2019	2020	2021
General government consumption expenditure	26.2	26.0	26.1	26.0	25.9	25.9	26.0	26.1
Transfers	18.5	17.9	17.5	17.3	17.3	17.2	17.1	17.1
Households	14.9	14.4	14.2	14.0	13.8	13.7	13.6	13.6
Corporations	1.9	1.8	1.9	1.8	1.8	1.8	1.8	1.8
Abroad	1.8	1.7	1.4	1.5	1.7	1.7	1.7	1.7
Gross fixed capital formation	4.3	4.2	4.4	4.5	4.6	4.5	4.5	4.5
General government primary expenditure	49.1	48.1	48.0	47.8	47.7	47.6	47.6	47.7
Property expenditure	0.8	0.6	0.6	0.5	0.5	0.5	0.7	0.9
Total expenditure	49.9	48.7	48.6	48.4	48.2	48.2	48.3	48.6

Sources: Statistics Sweden and NIER.

Table A29 Transfers from general government to households

Per cent of GDP

	2014	2015	2016	2017	2018	2019	2020	2021
Pensions ¹	8.1	7.8	7.8	7.7	7.7	7.6	7.6	7.5
Of which income pension	6.4	6.3	6.4	6.4	6.4	6.4	6.3	6.3
Labour market ²	0.8	0.8	0.7	0.7	0.7	0.6	0.6	0.6
Illness and disability ³	2.0	1.9	1.9	1.8	1.7	1.7	1.6	1.6
Family and children ⁴	1.8	1.7	1.7	1.7	1.7	1.7	1.7	1.7
Education ⁵	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3
Social assistance ⁶	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
Other ⁷	1.6	1.6	1.5	1.5	1.5	1.5	1.5	1.5
Transfers to households	14.9	14.4	14.2	14.0	13.8	13.7	13.6	13.6

¹ Income pension, supplementary pension, guaranteed pension, survivor's pension, general government occupational pensions and housing supplement for pensioners. ² Unemployment benefits, labour market training benefits, introduction benefit and salary guarantee. ³ Sickness and rehabilitation benefit, activity and sickness compensation, work injury compensation and disability allowance. ⁴ Parental benefit, child allowance, care allowance and housing allowance. ⁵ Student grants and other study allowance. ⁶ Welfare benefits. ⁷ 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

	2014	2015	2016	2017	2018	2019	2020	2021
Income index	0.5	2.1	2.0	3.7	1.9	3.3	3.3	3.4
Balance index	-1.1	2.5	5.9	4.4	3.0	3.3	3.3	3.4
Balance ratio ^{1, 2}	0.984	1.004	1.038	1.007	1.013	1.009	1.009	1.008
Nominal income pension³	-2.7	0.9	4.2	2.8	1.4	1.6	1.7	1.8

¹ Level. ² 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. ³ Percentage change of balance index minus 1,6 percentage points.

Sources: Swedish Pensions Agency and NIER.

Table A31 Central government budget balance and debt

SEK billion and percentage of GDP, respectively

	2014	2015	2016	2017	2018
Budget balance	-72.2	-32.6	85.3	29.8	25.0
Adjustments to net lending	2.2	10.9	19.1	18.2	11.9
Sales of shares etc.	-0.3	0.0	-0.2	0.0	0.0
Extra dividends	-2.1	-11.3	-2.1	0.0	0.0
On-lending	30.3	16.6	27.0	19.8	20.6
Other adjustments	-25.7	5.6	-5.6	-1.5	-8.7
Accruals	23.6	32.7	-51.6	4.4	20.1
Of which: Tax accruals	26.1	33.6	-42.4	8.7	22.1
Interest accruals	-5.4	-2.7	-8.3	-1.5	-2.0
Other	-2.7	2.2	-1.5	-0.6	-0.6
Central government net lending	-49.1	13.3	51.3	51.8	56.4
Central government borrowing requirement ¹	72.2	32.6	-85.3	-29.8	-25.0
Stock-flow adjustments, central government debt	38.8	-27.3	25.0	-15.6	-14.3
Central government debt, change	111.0	5.3	-60.3	-45.4	-39.3
Central government debt	1 347	1 352	1 292	1 247	1 207
<i>Per cent of GDP</i>	<i>34.2</i>	<i>32.3</i>	<i>29.5</i>	<i>27.2</i>	<i>25.3</i>

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

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

Table A32 Central government expenditure ceiling

SEK billion unless otherwise indicated

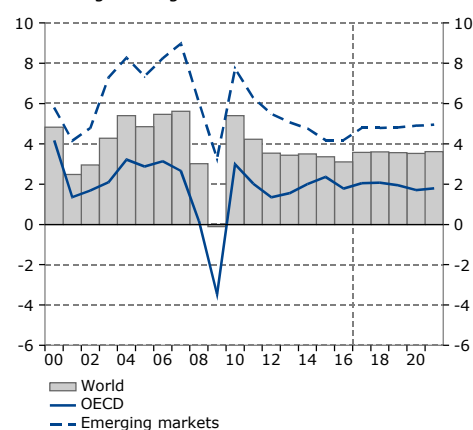
	2014	2015	2016	2017	2018	2019
Central government expenditure ceiling	1 107	1 158	1 215	1 274	1 332	1 392
<i>Per cent of potential GDP</i>	<i>27.5</i>	<i>27.6</i>	<i>27.9</i>	<i>28.2</i>	<i>28.4</i>	<i>28.5</i>
Capped expenditure	1 096	1 135	1 184	1 228	1 277	1 317
<i>Per cent of potential GDP</i>	<i>27.3</i>	<i>27.0</i>	<i>27.2</i>	<i>27.2</i>	<i>27.2</i>	<i>27.0</i>
Budgeting margin	11	23	31	46	55	75
<i>Per cent of capped expenditure</i>	<i>1.0</i>	<i>2.0</i>	<i>2.6</i>	<i>3.8</i>	<i>4.3</i>	<i>5.7</i>

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

Selected graphs

Diagram A1 GDP – world, OECD and emerging markets

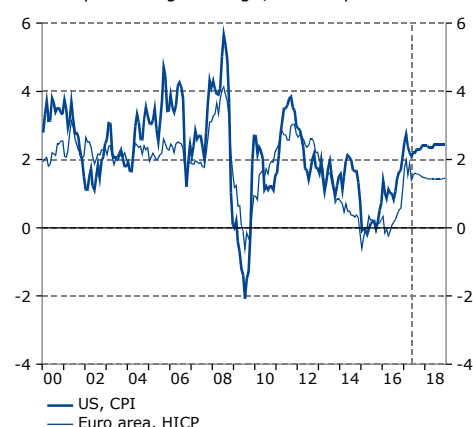
Percentage change



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

Diagram A3 Inflation in the US and the euro area

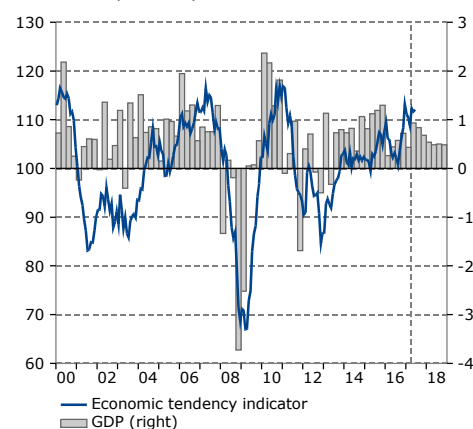
Annual percentage change, monthly values



Sources: Bureau of Labor Statistics, Eurostat and NIER.

Diagram A5 Economic tendency indicator and GDP

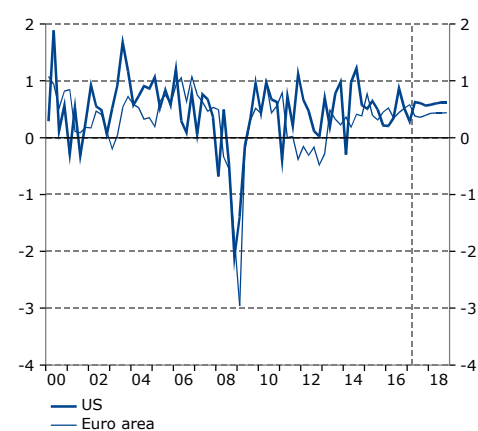
Index mean=100, monthly values, and percentage change, seasonally-adjusted quarterly values, respectively



Sources: Statistics Sweden and NIER.

Diagram A2 GDP in the US and the euro area

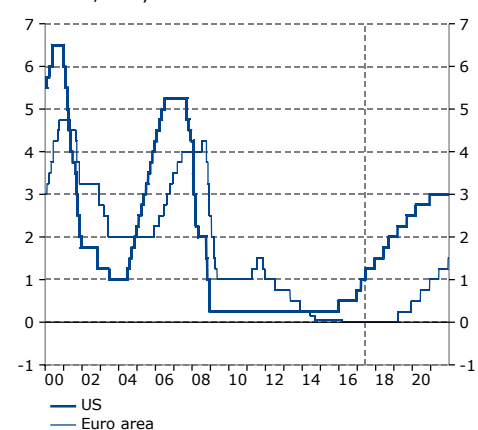
Percentage change, seasonally-adjusted quarterly values



Sources: Bureau of Economic Analysis, Eurostat, Macrobond and NIER.

Diagram A4 Central bank policy rates

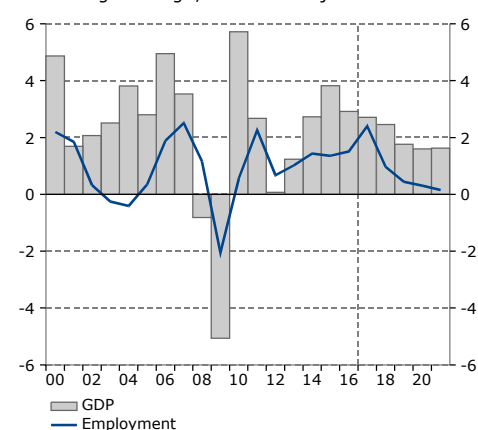
Per cent, daily values



Sources: Federal Reserve, ECB, Macrobond and NIER.

Diagram A6 GDP and employment

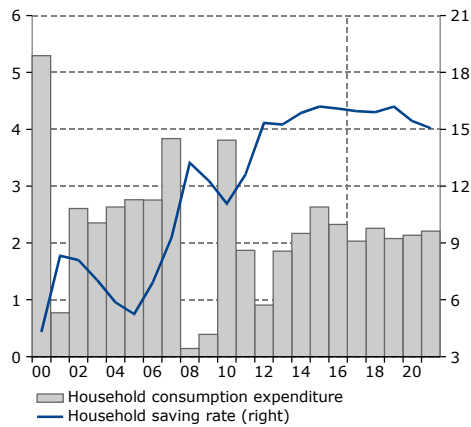
Percentage change, calendar-adjusted values



Sources: Statistics Sweden and NIER.

Diagram A7 Household consumption and saving rate

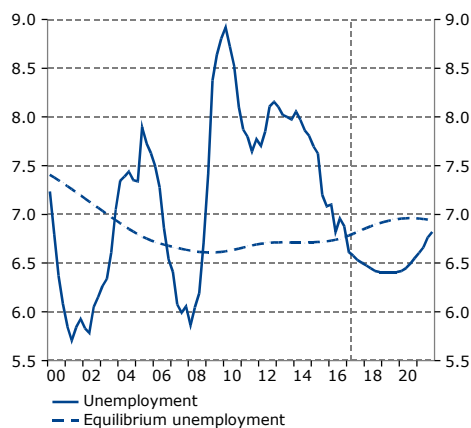
Percentage change, calendar-adjusted values, and percentage of disposable income, respectively



Sources: Statistics Sweden and NIER.

Diagram A9 Unemployment and equilibrium unemployment

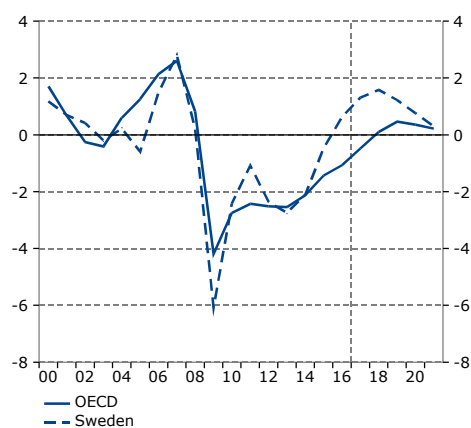
Per cent of labour force, seasonally-adjusted quarterly values



Sources: Statistics Sweden and NIER.

Diagram A11 Output gap in the OECD and Sweden

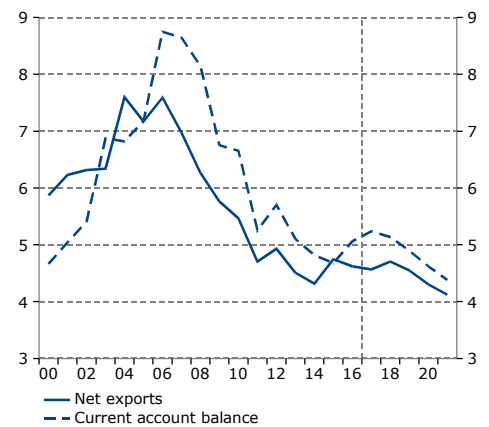
Per cent of potential GDP



Sources: OECD, Statistics Sweden, Macrobond and NIER.

Diagram A8 Net exports and current account balance

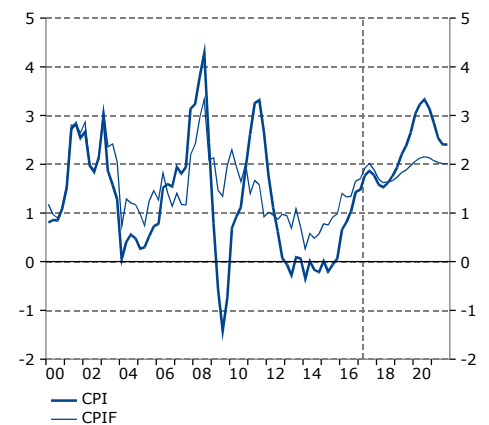
Per cent of GDP, current prices



Sources: Statistics Sweden and NIER.

Diagram A10 Consumer prices

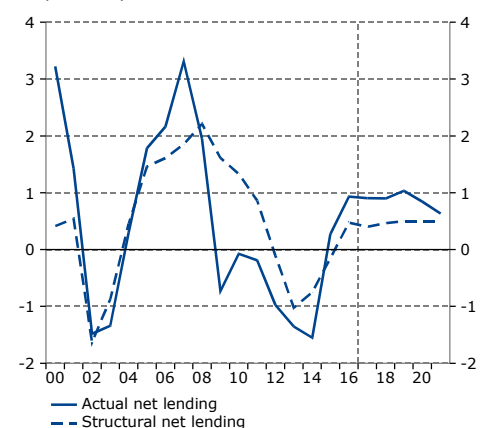
Annual percentage change, quarterly values



Sources: Statistics Sweden and NIER.

Diagram A12 Actual and structural net lending

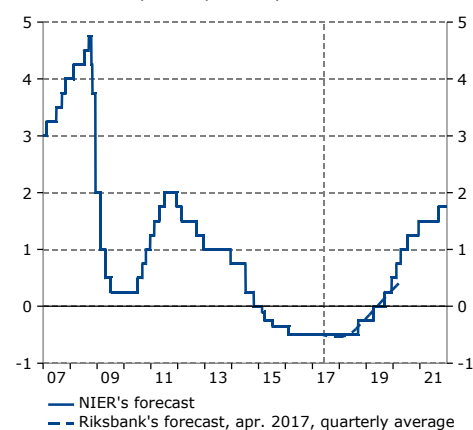
Per cent of GDP and per cent of potential GDP, respectively



Sources: Statistics Sweden and NIER.

Diagram A13 Repo rate

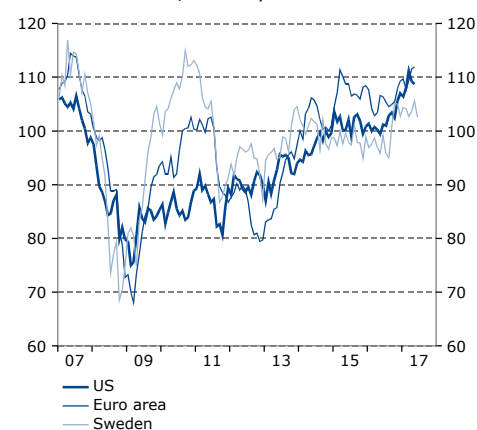
Per cent, daily and quarterly values



Sources: Sveriges Riksbank, Macrobond and NIER.

Diagram A14 Consumer confidence in the US, the euro area and Sweden

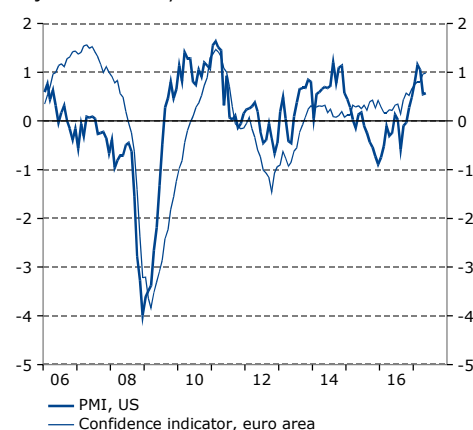
Index mean=100, monthly values



Sources: Conference Board, Eurostat, Macrobond and NIER.

Diagram A15 Confidence indicators for manufacturing

Standardised deviation from mean, seasonally-adjusted monthly values



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

Diagram A16 Recruitment plans in the business sector and employment

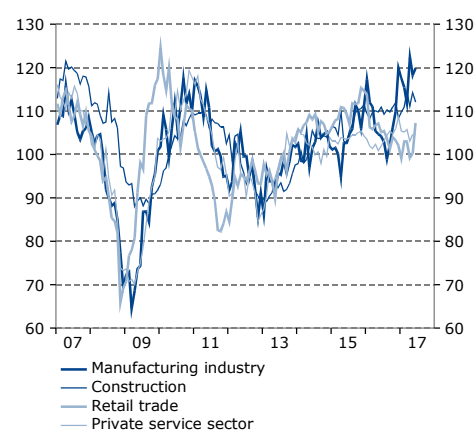
Net balance, seasonally-adjusted monthly values, and percentage change, seasonally-adjusted quarterly values, respectively



Sources: Statistics Sweden and NIER.

Diagram A17 Confidence indicators for the business sector

Index, mean=100, seasonally-adjusted monthly values



Source: NIER.