

# The Swedish Economy

December 2017



National Institute of Economic Research







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# Contents

Summary .....	5
Forecast revisions 2017–2018 .....	10
Prices in the housing market.....	13
Tables and graphs .....	17



## Summary

**The Swedish economy is going from strength to strength. Both output and employment rose rapidly during the autumn, and most indicators point to a continued upswing in the coming quarters. A strong investment climate abroad means that Swedish exports will be an even more important facilitator of growth in 2018. Combined with expansionary fiscal policy, this will contribute to a slight acceleration of GDP growth next year, and a continued fall in unemployment. Recent months' decline in housing prices is a major source of uncertainty. Our forecast anticipates that housing prices will stabilise in early 2018. The effects on the real economy from the drop in prices are expected to be moderate. Should housing prices continue to fall, this could have appreciable negative consequences for the economy.**

Swedish GDP continued to grow strongly in the third quarter of 2017 (see Diagram 1). Confidence is higher or much higher than normal in all parts of the business sector, and there is much pointing to the economy strengthening further in the coming quarters (see Diagram 2). The strong economy is rubbing off on the labour market, with employment continuing to climb relatively quickly in the third quarter. Monthly data and indicators suggest that employment will carry on rising at around the same rate in late 2017 and early 2018, and unemployment will continue to fall.

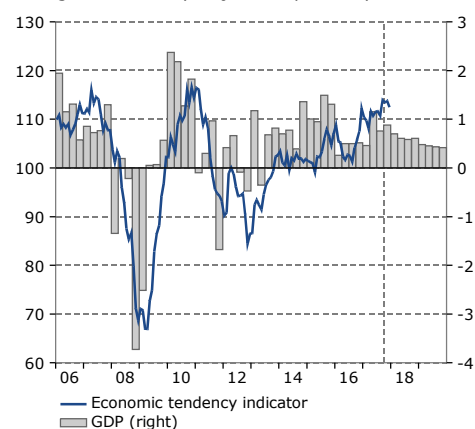
Recent months' decline in housing prices is a major source of uncertainty. The NIER's forecast anticipates that the decrease will be moderate and put only a slight damper on household consumption (see Diagram 3 and the special analysis "Prices in the housing market"). There is, however, a not insignificant risk of housing prices falling further in the short term than we have anticipated. Should prices fall much further than forecasted, this could have appreciable negative effects on the economy in 2018.

### EVER STRONGER ECONOMY IN THE EURO AREA

The recovery in the euro area has become increasingly surefooted over the past year, and the economy continued to grow relatively strongly in the third quarter. As in Sweden, many survey-based confidence indicators are at high levels, which suggests that the economy will continue to strengthen in late 2017 and early 2018. Rising capacity utilisation is increasing the need for new investment. There is also a backlog of replacement investment. Taken together, this means that investment will be an important growth driver in the euro area in the coming years, which is good news for Sweden's export industry. Unemployment in the euro area has fallen back relatively quickly in recent years. The ever stronger labour market has gone hand-in-hand with an increase in consumer confidence to high levels (see Diagram 4). Unemployment is still higher than in the years immedi-

**Diagram 1 Economic tendency indicator and GDP**

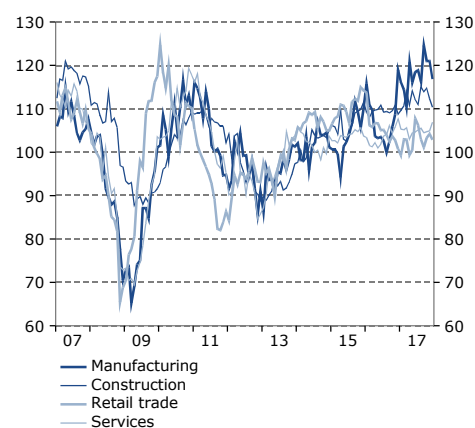
Index mean=100, monthly values and percentage change, seasonally adjusted quarterly values



Sources: Statistics Sweden and NIER.

**Diagram 2 Confidence indicators for business sector**

Index, mean=100, seasonally adjusted monthly values



Source: NIER.

**Diagram 3 Home price index for co-operative apartments and houses**

Index 2016 quarter 4=100, quarterly values

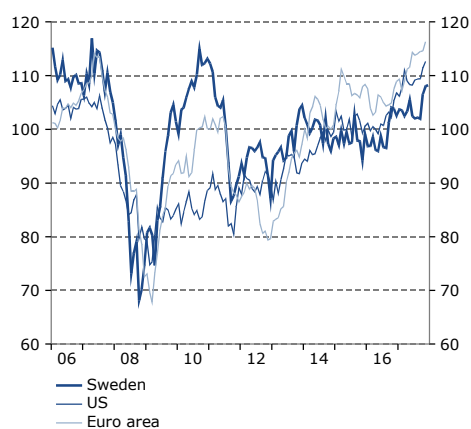


Note. Combined index consisting of property price index (SCB) and price index for co-operative apartments (HOX).

Sources: Valuegard, Statistics Sweden and NIER.

**Diagram 4 Consumer confidence in US, euro area and Sweden**

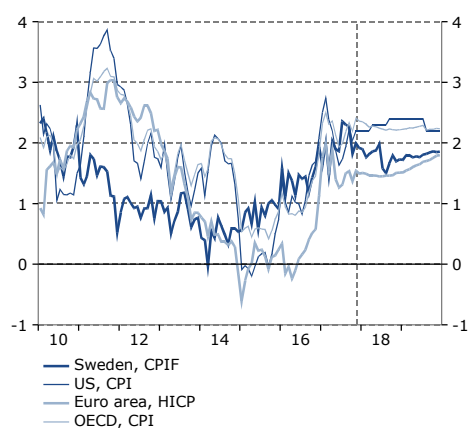
Index mean=100, seasonally adjusted monthly values



Sources: Conference Board, Eurostat, Macrobond and NIER.

**Diagram 5 Consumer prices**

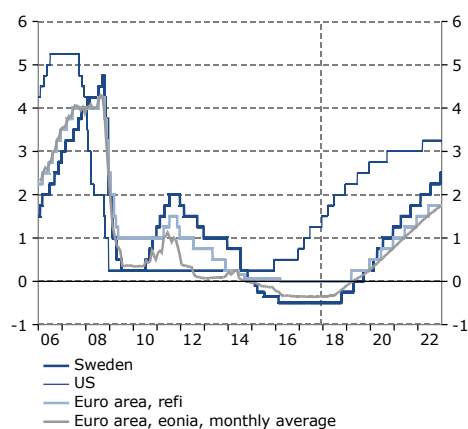
Annual percentage change, monthly values



Sources: OECD, Macrobond and NIER.

**Diagram 6 Policy rates**

Per cent, daily and monthly values



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

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

ately preceding the financial crisis, however, with the result that wage growth has not yet taken off, and inflation will not approach the ECB's target until late 2019 (see Diagram 5). The ECB will therefore not begin to raise its policy rate until spring 2019 (see Diagram 6).

The US is further ahead in the business cycle, and unemployment is now around the same levels as at previous cyclical peaks. Our forecast anticipates that substantial changes will be made to the tax system in 2018 in line with published proposals. The tax reductions are not expected to have any major effect on household consumption, but lower corporate taxes and changes to the rules on deductions will stimulate business investment to some extent, and the strong investment climate is an important reason why GDP growth is expected to rise in 2018. The Federal Reserve will continue its established pattern of interest rate increases to prevent the economy from overheating further ahead, and inflation from rising too far.

In China, GDP growth has accelerated during 2017, partly due to expansionary economic policy. Policy does appear to be moving in a somewhat less growth-oriented direction, however, and GDP growth will slow slightly in 2018 and 2019. In Brazil and India, on the other hand, growth is set to accelerate. All in all, global GDP growth will grow roughly as fast in 2018 and 2019 as it has in 2017 (see Table 1).

## NUMEROUS RISKS TO THE GLOBAL ECONOMY

Although there is pointing to the global economy continuing to perform well in the coming years, there are a number of potential pitfalls. The low policy rates and unconventional monetary policies of recent years have helped push up prices for shares and other assets in many parts of the world. There is a risk that the rise has been unsustainably rapid. A sudden decline in asset prices would put a damper on demand growth through decreases in both wealth and confidence.

Although European bank stocks have generally made gains since mid-2016, concern remains regarding parts of the European banking sector where there is a high share of doubtful debts. There is also risk of an abrupt slowdown in the Chinese economy, partly due to high and growing indebtedness and weak balance sheets in parts of the banking system.

## SWEDISH HOUSING INVESTMENT TO STAGNATE

Housing investment in Sweden has increased very rapidly in recent years (see Diagram 7), but there are now clear signs of a slowdown. Recent months' decline in housing prices means that the number of apartment starts will fall slightly in 2018–2019. Housing investment will therefore level off, albeit at a high level, during the period. This, in turn, means that construction activity will markedly slow down in 2018 and virtually stagnate in 2019.



Production in the manufacturing industry, on the other hand, will gain further momentum in 2018. According to the Economic Tendency Survey, manufacturers are currently very happy with their export order books. In many parts of the world, the economic upswing is moving hand-in-hand with rapidly rising investment. Demand for Swedish exports will therefore continue to grow fast in 2018. Together with a relatively weak krona, this means that exports will be an even more important driver for growth in the Swedish economy in 2018 than they have been 2017 (see Diagram 8).

**Table 1 Selected indicators**

Percentage change, unless otherwise indicated

	2016	2017	2018	2019	2020	2021	2022
GDP, market prices	3.2	2.5	2.9	2.0	1.7	1.4	1.4
GDP per capita	1.9	1.1	1.7	1.0	0.6	0.3	0.3
GDP, calendar-adjusted	3.0	2.7	3.0	2.1	1.4	1.3	1.4
GDP, world	3.2	3.8	3.7	3.7	3.6	3.5	3.4
Current account balance <sup>1</sup>	5.1	4.8	4.7	4.9	4.9	4.7	4.5
Hours worked <sup>2</sup>	2.1	1.7	1.9	0.9	0.3	0.0	-0.1
Employment	1.5	2.3	1.4	0.7	0.3	0.1	0.2
Unemployment rate <sup>3</sup>	6.9	6.7	6.4	6.2	6.3	6.4	6.7
Labour market gap <sup>4</sup>	-0.2	0.6	1.6	1.8	1.5	1.0	0.2
Output gap <sup>5</sup>	0.8	1.6	2.3	2.3	1.7	0.9	0.2
Hourly earnings <sup>6</sup>	2.4	2.7	3.0	3.3	3.7	3.9	3.9
Hourly labour costs <sup>2</sup>	3.0	2.9	3.1	3.3	3.7	3.9	3.9
Productivity <sup>2</sup>	0.6	1.1	1.2	1.2	1.1	1.2	1.5
CPI	1.0	1.8	1.7	2.3	2.9	2.7	2.5
CPIF	1.4	2.0	1.8	1.8	2.1	2.0	2.0
Repo rate <sup>7,8</sup>	-0.50	-0.50	-0.25	0.25	1.25	1.75	2.50
10-year government bond yield <sup>7</sup>	0.5	0.7	1.0	1.6	2.2	2.6	3.1
Effective krona exchange rate index (KIX) <sup>9</sup>	111.7	112.9	113.5	111.7	109.9	108.1	106.2
Government net lending <sup>1</sup>	1.2	1.0	0.9	1.1	1.2	0.9	0.6
Structural net lending <sup>10</sup>	0.6	0.3	-0.1	0.1	0.5	0.5	0.5
Maastricht debt <sup>1,8</sup>	42.2	39.4	37.2	34.7	32.9	31.7	30.8

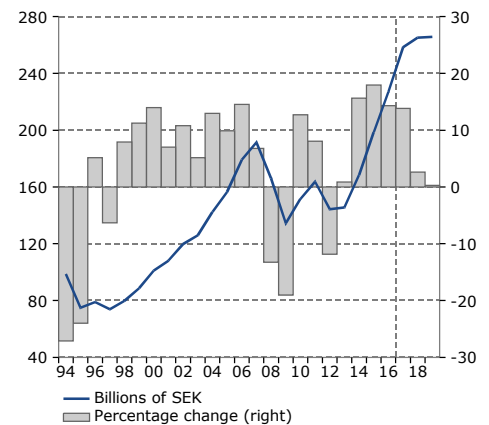
<sup>1</sup> Per cent of GDP. <sup>2</sup> Calendar-adjusted. <sup>3</sup> Per cent of labour force. <sup>4</sup> Difference between actual and potential hours worked in per cent of potential hours worked. <sup>5</sup> Difference between actual and potential GDP in per cent of potential GDP. <sup>6</sup> 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.

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

The bright manufacturing outlook and already high capacity utilisation mean that investment in the manufacturing industry will continue to grow relatively rapidly in the near future. Busi-

**Diagram 8 Housing investment**

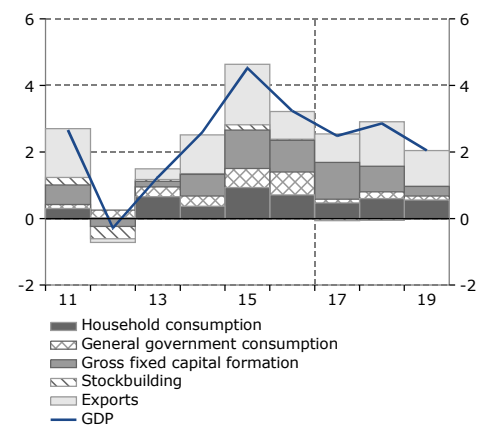
Billions of SEK, constant prices and per cent



Sources: Statistics Sweden and NIER.

**Diagram 7 Contributions to GDP growth, adjusted for import content**

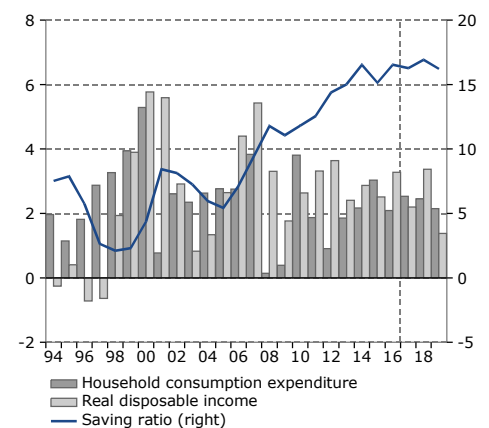
Percentage change and percentage points



Sources: Statistics Sweden and NIER.

**Diagram 9 Household consumption, real disposable income and saving ratio**

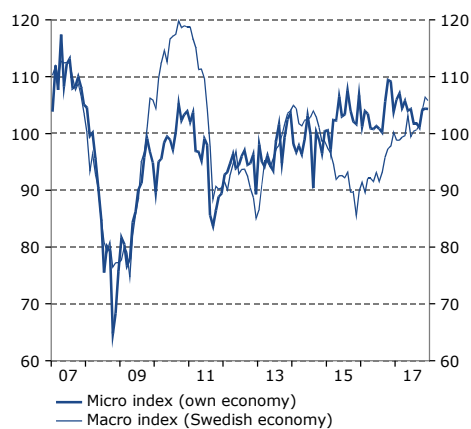
Percentage change and per cent of disposable income



Sources: Statistics Sweden and NIER.

**Diagram 10 Consumer micro and macro index**

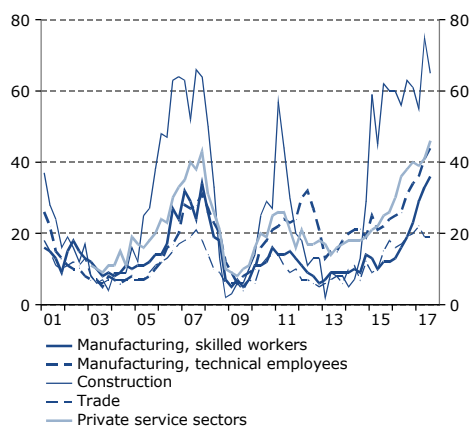
Index mean=100, seasonally adjusted monthly values



Source: NIER.

**Diagram 11 Labour shortage**

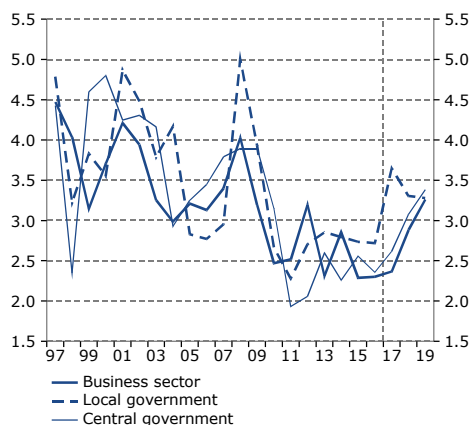
Share of yes answers, seasonally adjusted quarterly values



Source: NIER.

**Diagram 12 Hourly earnings in business sector, local government and central government**

Percentage change



Sources: National Mediation Office and NIER.

ness investment as a whole will therefore rise relatively quickly next year despite the slowdown in housing investment. As a result, investment will continue to make a major contribution to GDP growth in 2018, albeit not quite on a par with 2017.

Hours worked have risen rapidly in 2017 (see Table 1), and household real disposable income will therefore increase around the normal rate despite subdued wage growth (see Diagram 9). Hours worked will continue to grow very quickly in 2018. Together with the tax reductions and increased transfer payments in the government’s budget, this will cause real disposable income to grow relatively quickly in 2018.

The strong performance of the labour market and recent quarters’ high GDP growth have probably contributed to the growing consumer optimism of recent months (see Diagram 10). Together with strong income growth, this means that households will increase their consumption in 2018 at around the same rate as in 2017, despite the slowdown in the housing market spreading uncertainty and putting a damper on growth in wealth. In 2019, weaker employment growth, rising interest rates and contractionary fiscal policy will hold back income growth. Households will nevertheless increase their consumption at around the normal rate, bringing the savings ratio down slightly from its current high levels.

The strong GDP growth in the latter part of 2017 will largely spill over into growth for 2018 as a whole. Although growth will slow gradually over the course of 2018, it will therefore climb to 2.9 per cent for the year as a whole. In 2019, GDP growth will slow, and resource utilisation in the economy as a whole will remain high.

**CONSIDERABLE MATCHING PROBLEMS IN THE LABOUR MARKET**

The rapid increase in employment in recent years has led to major shortages of labour with the required skills in large parts of the business sector (see Diagram 11). Employers in the public sector are also reporting that 15 per cent of recruitment processes are being affected by shortages or failing, which is twice the level of four years ago. These considerable matching problems suggest that unemployment cannot fall much further unless further action is taken to improve matching and make it easier for groups with a weak position in the labour market to find work. Our forecast does not include any additional measures in this area. Unemployment will fall during the course of 2018 and decrease slightly further in 2019, bottoming out at 6.2 per cent. This is somewhat higher than during the two most recent peaks in the labour market. One reason why the jobless rate will not fall as far in this cycle is that there is now a much larger share of people in the labour force with a weak position in the labour market.

### SUBDUED WAGE GROWTH IN THE BUSINESS SECTOR

The 2017 collective bargaining process resulted in agreed wage increases in the business sector in 2017–2019 of around the same size as during the previous four years, or just over 2 per cent per annum. Given the strong labour market, it would not have been surprising if the agreed rises had been somewhat higher. These moderate agreed rises will put a damper on how fast actual wages grow. The strong demand for labour and considerable labour shortages point to wage drift, however, and so wages in the business sector are expected to accelerate gradually in 2018 and 2019 (see Diagram 12). Wages in the public sector have been growing much more quickly over the past year than those in the business sector, due partly to active initiatives targeting certain groups.

The faster wage growth in the business sector means that unit labour costs will rise more quickly in 2018–2019. Firms' cost pressures will therefore gradually mount slightly more quickly during the period. According to firms' responses to the Economic Tendency Survey, however, profitability is currently higher than normal, which will reduce the need to pass on cost increases to consumers.

### CPIF INFLATION TO STAY CLOSE TO 2 PER CENT

CPIF inflation – the rise in the consumer price index with a fixed interest rate – has risen rapidly since autumn 2016 and has hovered around 2 per cent in 2017 (see Diagram 13). Much of the increase is due to a surge in energy prices. Energy prices to consumers will continue to climb in the coming years, but not as quickly as over the past year, and their contribution to inflation will fade somewhat. The ever stronger economy indicates that CPIF inflation ex energy will increase more quickly. According to the Economic Tendency Survey, however, firms' plans for price increases are still moderate, and their inflation expectations one year ahead are below 1.5 per cent. Taken together, this means that CPIF inflation will fall back slightly and come out just below 2 per cent in 2018 and 2019. Not until 2020 will inflation return to 2 per cent more permanently.

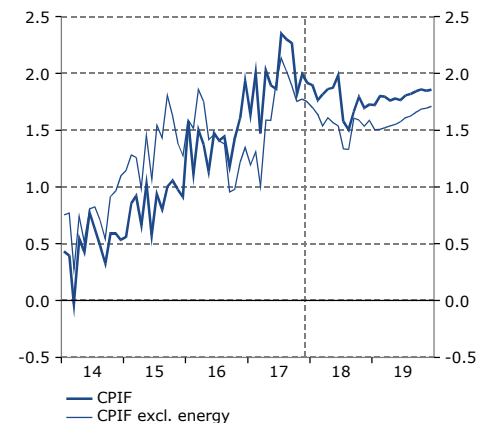
The subdued inflation outlook means that the NIER does not expect the Riksbank to raise the repo rate until autumn 2018. This is in line with both market expectations, as measured by RIBA futures, and the Riksbank's own projections (see Diagram 14).

### FISCAL POLICY WILL NEED TIGHTENING IN 2019

The government's budget for 2018 means that fiscal policy will remain expansionary. According to the NIER's calculations, structural net lending will fall to –0.1 per cent of potential GDP in 2018 (see Diagram 15). The NIER estimates that structural net lending needs to amount to 0.5 per cent of potential GDP for the surplus target to be met. Fiscal policy will therefore need

**Diagram 13 Consumer prices**

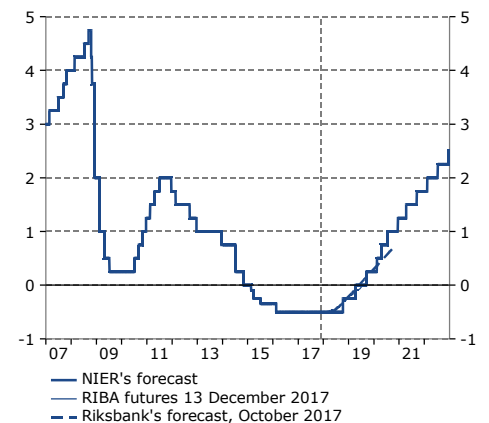
Annual percentage change, monthly values



Sources: Statistics Sweden and NIER.

**Diagram 14 Repo rate**

Per cent, daily and quarterly values

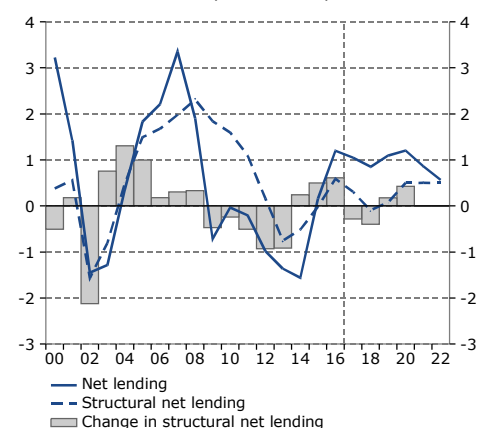


Note. Riksbank's forecast refers to quarterly values.

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

**Diagram 15 General government net lending and structural net lending**

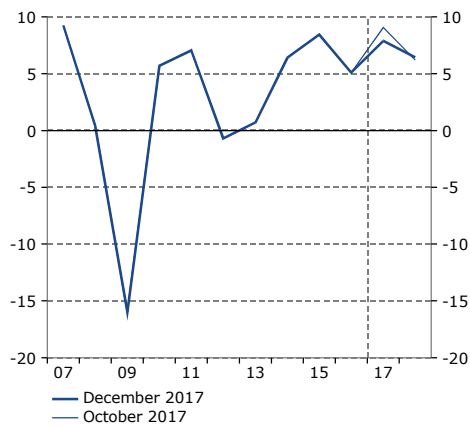
Per cent of GDP and per cent of potential GDP



Sources: Statistics Sweden and NIER.

**Diagram 16 Gross fixed capital formation, business sector**

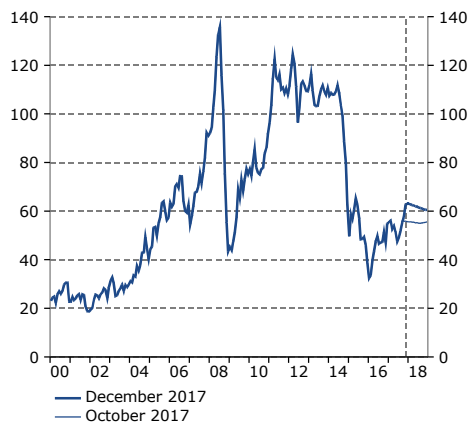
Percentage change



Sources: Statistics Sweden and NIER.

**Diagram 17 Oil price**

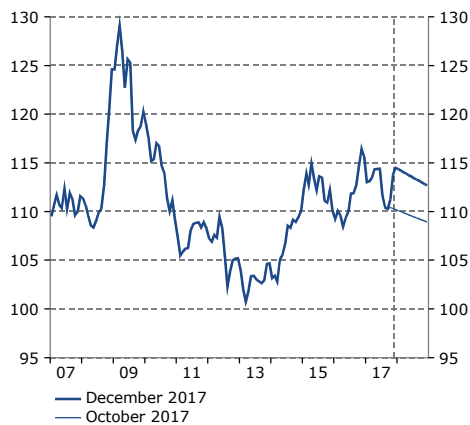
Brent oil, dollar per barrel, monthly values



Sources: Macrobond, International Petroleum Exchange and NIER.

**Diagram 18 Effective exchange rate of the Swedish krona (KIX)**

Index 18 November 1992=100, monthly values



Sources: The Riksbank, Macrobond and NIER.

to be tightened in the following years. The NIER's forecast for fiscal policy in 2019 has been guided by the principle that all new initiatives must be fully funded. As the underlying tightening effect of unchanged policies will be relatively modest in 2019, structural net lending will not come into line with the surplus target until 2020.

## Forecast revisions 2017–2018

New information since our October forecast has not led to any major changes to our view of resource utilisation in the Swedish economy as a whole as measured by the output gap (see Table 2). There are, however, a number of forecast revisions that are worth commenting on.

- The forecast for GDP growth in the euro area has been raised by 0.2 percentage points for 2017 and 0.3 points for 2018, mainly as a result of investment growing more strongly than previously envisaged.
- The forecast for GDP growth in Sweden for 2017 has been lowered by 0.3 percentage points, due chiefly to the revision of historical data by Statistics Sweden.
- A substantial share of the revisions to Swedish GDP growth for 2017 can be attributed to a downward revision of business investment (see Diagram 16), including housing investment.
- The forecast for growth in household consumption has been lowered slightly for 2017 and 2018, largely as a result of unexpectedly weak growth in the third quarter of 2017, which will also spill over into growth in 2018 as a whole.
- Despite the downward revision of GDP growth, hours worked in 2017 have been adjusted up on the strength of surprisingly strong figures for the third quarter. Taken together, this means that productivity growth in 2017 has been revised down sharply.
- The forecast for growth in Swedish exports has been raised for both 2017 and 2018, partly due to investment in the euro area growing more strongly than previously foreseen.
- The forecast for crude oil prices for 2018 has been revised up by 6.3 dollars per barrel following their recent surge (see Diagram 17).
- The krona index (KIX) has deteriorated markedly in recent months, and so the forecast for 2018 has been revised up by 3.7 per cent (see Diagram 18).

**Table 2 Current forecast and revisions compared to the October 2017 forecast**

Percentage change, unless otherwise indicated

	2017			2018		
	Dec	Okt	Diff	Dec	Okt	Diff
<b>Global economy</b>						
GDP, world	3.8	3.7	0.1	3.7	3.6	0.1
GDP, OECD	2.4	2.2	0.2	2.3	2.1	0.2
GDP, euro area	2.4	2.1	0.2	2.1	1.8	0.3
GDP, US	2.2	2.1	0.2	2.5	2.2	0.2
GDP, China	6.8	6.7	0.1	6.4	6.3	0.1
Federal funds target rate <sup>1,2</sup>	1.5	1.5	0.0	2.3	2.0	0.3
ECB refi rate <sup>1,2</sup>	0.0	0.0	0.0	0.0	0.0	0.0
Oil price <sup>3</sup>	54.7	53.4	1.3	61.6	55.3	6.3
CPI, OECD	2.3	2.2	0.1	2.3	2.1	0.2
<b>Domestic economy</b>						
GDP, calendar-adjusted	2.7	3.0	-0.3	3.0	2.8	0.1
GDP	2.5	2.8	-0.3	2.9	2.7	0.1
Household consumption	2.5	2.5	-0.1	2.4	2.6	-0.2
Government consumption	0.5	0.3	0.1	0.9	1.0	0.0
Gross fixed capital formation	7.4	8.6	-1.2	5.9	6.1	-0.1
Stockbuilding <sup>4</sup>	0.0	-0.1	0.1	-0.2	-0.2	0.0
Exports	3.4	3.0	0.4	5.1	4.6	0.5
Imports	5.1	4.4	0.6	5.0	5.0	0.0
<b>Labour market, inflation, interest rates etc.</b>						
Hours worked <sup>5</sup>	1.7	1.4	0.4	1.9	1.6	0.3
Employment	2.3	2.3	0.1	1.4	1.2	0.3
Unemployment <sup>6</sup>	6.7	6.6	0.1	6.4	6.3	0.1
Labour market gap <sup>7</sup>	0.6	0.5	0.1	1.6	1.3	0.3
Output gap <sup>8</sup>	1.6	1.6	-0.1	2.3	2.3	0.1
Productivity <sup>5</sup>	1.1	1.7	-0.6	1.2	1.3	-0.1
Hourly earnings <sup>9</sup>	2.7	2.7	0.0	3.0	3.0	0.0
CPI	1.8	1.9	-0.1	1.7	1.7	0.0
CPIF	2.0	2.0	-0.1	1.8	1.7	0.1
Repo rate <sup>1,2</sup>	-0.50	-0.50	0.00	-0.25	-0.25	0.00
10-year government bond yield <sup>1</sup>	0.7	0.6	0.0	1.0	1.1	-0.1
Effective krona exchange rate index (KIX) <sup>10</sup>	112.9	112.2	0.7	113.5	109.5	4.0
Current account balance <sup>11</sup>	4.8	4.5	0.2	4.7	4.3	0.4
Government net lending <sup>11</sup>	1.0	1.0	0.0	0.9	0.6	0.2

<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 difference is between the current forecast and the October 2017 forecast. A positive value denotes an upward revision.

Source: NIER.



## SPECIAL ANALYSIS

### Prices in the housing market

**After rising rapidly for a long time, housing prices in Sweden faltered during the autumn, with prices falling month-on-month in September, October and November. The NIER believes that the downturn is only temporary. The macroeconomic effects of the fall in prices observed to date are expected to be minor.**

#### DIP IN PRICES AFTER LENGTHY UPSURGE

Prices in the Swedish housing market have climbed relatively strongly in recent years. According to the HOX index, prices for houses and co-operative apartments have more than doubled since 2005. The market has lost momentum in recent months, however, and prices have fallen slightly for the past three months. Both the index for house prices and the index for co-operative apartment prices have lost ground (see Diagram 128).

The overall HOX index has come down around 6 per cent in recent months in seasonally adjusted terms, and the decrease in prices can be observed widely around the country (see Diagrams 129 and 130).

The slowdown in the housing market can also be seen in expectations of future housing prices. SEB's housing price indicator has dropped and shows a negative net balance (see Diagram 131), which means that more households now expect prices to fall than to rise. The last time the indicator was at this level was at the end of 2012.

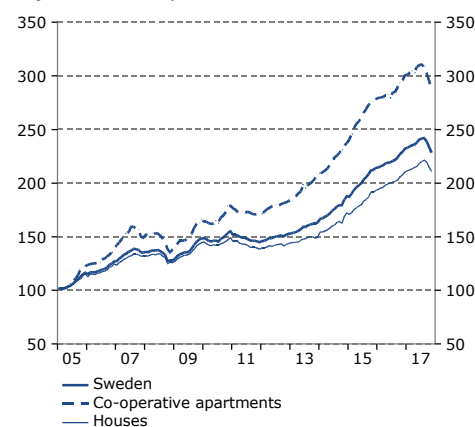
#### HOUSING PRICES CAN IMPACT BOTH CONSUMPTION AND INVESTMENT

Housing prices can act on the economy in a number of ways, for instance via household consumption. The effects on household consumption can arise through various channels. For example, housing prices are a determinant of households' overall wealth, and hence their consumption. Housing prices also affect households' ability to borrow against their homes. A change in the value of a property will change its value as collateral, affecting how much the household can borrow, and so also how much it can spend. Another effect of falling housing prices is an alteration of household debt ratios. This can affect decisions on repayment and make households less likely to take out new loans, impacting in turn on their consumption.

Housing prices can also act on the economy in other ways besides via household consumption. The will to invest in housing is affected by property prices. The higher prices are, the more profitable it is to build new homes. Both housing invest-

**Diagram 19 HOX housing prices for Sweden**

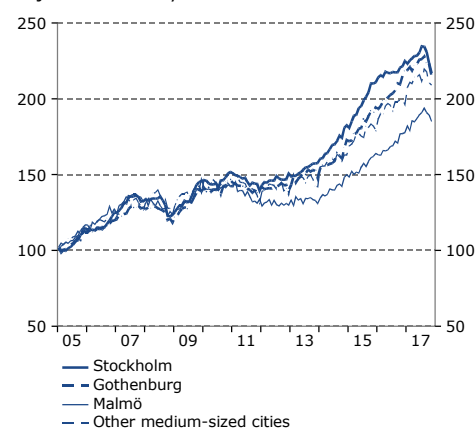
HOX price index, January 2005=100, seasonally adjusted monthly values



Sources: Valuegard and NIER.

**Diagram 20 Price index for houses in different regions**

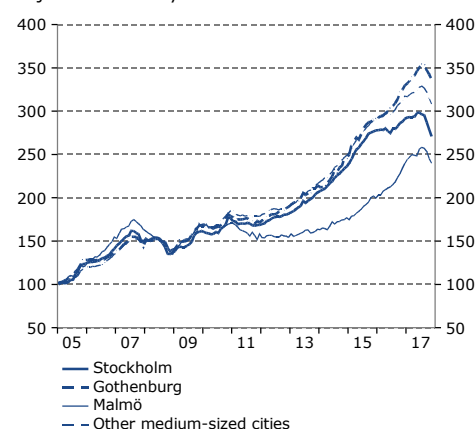
HOX price index, January 2005=100, seasonally adjusted monthly values



Källor: Valuegard och Konjunkturinstitutet.

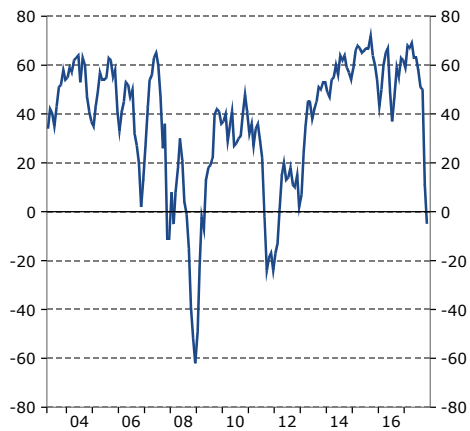
**Diagram 21 Price index for co-operative apartments in different regions**

HOX price index, January 2005=100, seasonally adjusted monthly values



Sources: Valuegard and NIER.

**Diagram 22 SEB's house price indicator**  
Balances, monthly values



Note. The share that believes in price increases minus the share who believe in price reduction  
Sources: SEB and NIER.

ment and homebuilding activity are therefore influenced by movements in housing prices.

As well as having direct effects on aggregate demand, and hence on output and employment, housing prices can also affect key functions in the economy. The financial crisis clearly demonstrated how important a role the financial system plays for the economy. If movements in housing prices have a negative impact on the financial system, this can affect the economy through a reduced supply of credit, for example.

How great a role housing prices play in economic developments has been explored in a number of studies. The NIER has previously looked at how a drop in housing prices might affect the economy.<sup>1</sup> Model simulations indicate that housing prices have a certain effect on household consumption. In one of the scenarios studied, it is assumed that real housing prices fall 5 per cent for four successive quarters, in other words by 20 per cent in a year, before slowly returning to normal levels. In this scenario, household consumption drops temporarily below trend. The decline peaks at almost 2 per cent after five quarters, but consumption is back to the original trend level after three years. Unemployment increases at most by around 1.5 percentage points relative to a base scenario. Similar calculations have been performed by the Riksbank.<sup>2</sup> The central bank finds that if housing prices drop 20 per cent over a one-year period, GDP will be just over 1 per cent lower after two years, and unemployment almost 1 percentage point higher.<sup>3</sup> The results of these two studies indicate that the macroeconomic effects of a sharp fall in housing prices can be appreciable, but not necessarily severe. In the light of these calculations, the macroeconomic effects of this autumn's dip in housing prices are expected to be minor, not least because the decrease observed so far has been relatively small and short-lived up to this point.

At the same time, it is important to remember that the economic impact of a weaker housing market can also depend on how much scope there is for monetary policy to react to the knock-on effects of lower housing prices. In a situation with limited monetary leeway, the impact could be greater than the estimates above suggest. The macroeconomic effects could also be greater if a housing crash coincides with a global economic

<sup>1</sup> See NIER Occasional Study No. 41, "Makroekonomiska effekter av ett bostadsprisfall i Sverige", June 2014, also published as Gustafsson, P., Stockhammar, P. and Österholm, P. (2016), "Macroeconomic Effects of a Decline in Housing Prices in Sweden", *Journal of Policy Modeling* 38(2), 242-255.

<sup>2</sup> Sveriges Riksbank, *Monetary Policy Report*, July 2010.

<sup>3</sup> See NIER Occasional Study No. 41 (ibid) for a more detailed account of various estimations.



downturn, or if the functioning of the financial system is adversely affected.

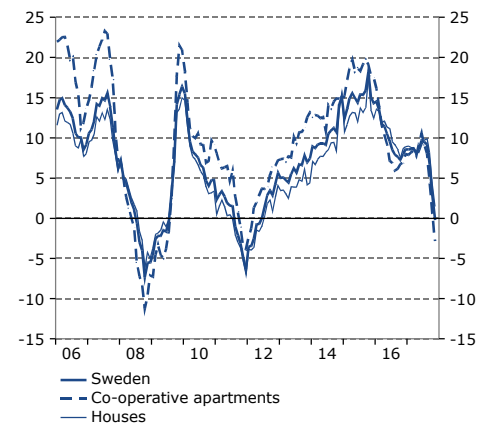
#### MORE NORMAL HOUSING PRICE INFLATION AHEAD

The downturn in the housing market during the autumn follows a long period of strong growth. Although prices have now fallen for several successive months, the slowdown in terms of the annual change is still minor (see Diagram 132). The NIER's forecast is based on the decline in housing prices being only limited, and the macroeconomic effects minor. Factors supporting a limited decline include the Swedish economy in general looking strong and being expected to continue to grow healthily, with further increases in employment and incomes, and interest rates rising only slowly during the forecast period. Developments abroad are also expected to be robust in the coming years.

As with other asset markets, forecasts of short-term movements in the housing market are associated with great uncertainty. A number of macroeconomic variables are nonetheless affected by changes in housing prices, which means that we need a set path for housing prices in order to produce a forecast for the Swedish economy. The NIER estimates such a path. The idea is to paint an approximate picture of developments in the slightly longer term, rather than to provide an exact forecast of what prices will be in specific months (see Diagram 133). The NIER's housing price path indicates that housing prices at an aggregated level will increase by around 7 per cent in 2017 and then fall by around 2 per cent in 2018 before climbing again by around 4 per cent in 2019. In the long term, when the housing market is in equilibrium, the NIER expects housing prices to rise by around 3 per cent per annum.<sup>4</sup>

**Diagram 23 HOX housing prices for Sweden**

Annual percentage change, monthly values



Sources: Statistics Sweden, Valuegard and NIER.

**Diagram 24 Housing price index for co-operative apartments and houses**

Index 2016 quarter 4=100, quarterly values



Note. Combined index consisting of property price index (Statistics Sweden) and price index for co-operative apartments (HOX).

Sources: Valuegard, Statistics Sweden and NIER.

<sup>4</sup> This is a result of households allocating a constant share of their disposable income to accommodation. See NIER Working Paper No. 106, "Strukturell utvecklingstakt av arbetskostnad och priser i den svenska ekonomin" [Structural growth in labour costs and prices in the Swedish economy], May 2011.



# 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](http://www.konj.se/english/data-sets).

## CONTENTS

The global economy 2017–2019 .....	18
Table A1 Global output.....	18
Table A2 Global inflation.....	19
Table A3 Selected indicators for the euro area .....	19
Table A4 Selected indicators for the US.....	20
Table A5 Scenario for the global economy .....	20
The Swedish Economy 2017–2019 .....	21
Table A6 GDP by expenditure.....	21
Table A7 Household income, consumption expenditure and saving.....	22
Table A8 Current account and net lending .....	22
Table A9 GNI .....	23
Table A10 Production.....	23
Table A11 Hours worked .....	23
Table A12 Productivity .....	24
Table A13 The labour market.....	24
Table A14 Hourly earnings according to the short-term earnings statistics.....	24
Table A15 Hourly earnings and labour costs in the business sector according to the national accounts.....	25
Table A16 Supply and use price deflators.....	25
Table A17 Business sector prices, costs and profits.....	26
Table A18 Consumer prices.....	26
Scenario for the Swedish economy 2017–2022 .....	27
Table A19 Resource utilisation .....	27
Table A20 Scenario for the Swedish economy.....	27
Table A21 GDP and demand .....	28
Table A22 Interest and exchange rates.....	28
Public finances 2017–2022.....	29
Table A23 General government finances .....	29
Table A24 Central government finances.....	30
Table A25 Old-age pension system finances.....	30
Table A26 Local government finances.....	31
Table A27 General government revenue .....	31
Table A28 General government expenditure .....	32
Table A29 Transfers from general government to households.....	32
Table A30 Income index, balance index, income pensions and balance ratio.....	32
Table A31 Central government budget balance and debt.....	33
Table A32 Central government expenditure ceiling.....	33
Selected graphs.....	35

## The global economy 2017–2019

**Table A1 Global output**

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

	Weight 2016	2013	2014	2015	2016	2017	2018	2019
World		3.5	3.6	3.4	3.2	3.8	3.7	3.7
KIX weighted <sup>1</sup>	74.5	1.4	2.3	2.3	2.1	2.8	2.6	2.4
OECD	44.9	1.5	2.1	2.5	1.8	2.4	2.3	2.1
US	15.5	1.7	2.6	2.9	1.5	2.2	2.5	2.3
Euro area	11.7	-0.2	1.4	2.0	1.8	2.4	2.1	1.8
Germany	3.3	0.6	1.9	1.5	1.9	2.5	2.3	1.8
France	2.3	0.6	1.0	1.0	1.1	1.8	1.7	1.7
Italy	1.9	-1.7	0.2	0.9	1.1	1.5	1.4	1.2
Spain	1.4	-1.7	1.4	3.4	3.3	3.1	2.5	2.1
Finland	0.2	-0.8	-0.6	0.0	1.9	3.1	2.2	2.0
Japan	4.4	2.0	0.3	1.4	0.9	1.7	1.2	0.8
UK	2.3	2.1	3.1	2.3	1.8	1.5	1.5	1.5
Sweden	0.4	1.2	2.7	4.3	3.0	2.7	3.0	2.1
Norway	0.3	1.1	2.1	1.8	1.0	2.1	1.8	2.0
Denmark	0.2	0.9	1.6	1.6	2.0	1.9	2.0	2.1
Emerging markets <sup>2</sup>	55.1	5.2	4.8	4.2	4.4	4.9	4.8	4.9
China	17.7	7.8	7.4	7.0	6.7	6.8	6.4	6.2
India	7.2	6.2	7.2	7.8	7.8	6.4	7.2	7.4
Brazil	2.6	3.0	0.5	-3.8	-3.6	0.9	1.9	2.5
<b>GDP per capita</b>								
US		1.0	1.8	2.1	0.8	1.6	1.8	1.7
Euro area		-0.4	1.1	1.6	1.4	2.1	1.8	1.5
Japan		2.2	0.5	1.5	1.0	1.9	1.4	1.1
<b>Market growth</b>								
World <sup>3</sup>		2.7	3.7	3.5	3.7	3.9	3.7	3.6

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

**Table A2 Global inflation**

Percentage change in CPI

	2012	2013	2014	2015	2016	2017	2018	2019
OECD	2.2	1.6	1.7	0.6	1.1	2.3	2.3	2.2
US	2.1	1.5	1.6	0.1	1.3	2.1	2.3	2.3
Euro area	2.5	1.3	0.4	0.0	0.2	1.5	1.5	1.7
Germany	2.1	1.6	0.8	0.1	0.4	1.7	1.6	1.8
France	2.2	1.0	0.6	0.1	0.3	1.2	1.3	1.5
Italy	3.3	1.3	0.2	0.1	-0.1	1.3	1.3	1.5
Spain	2.4	1.5	-0.2	-0.6	-0.3	2.1	1.6	1.7
Finland	3.2	2.2	1.2	-0.2	0.4	0.9	1.2	1.6
Japan	-0.1	0.3	2.8	0.8	-0.1	0.4	0.8	1.1
UK	2.8	2.6	1.5	0.1	0.6	2.7	2.5	2.3
Sweden	0.9	0.4	0.2	0.7	1.1	1.9	1.6	1.6
Norway	0.4	2.0	1.9	2.0	3.9	1.9	1.6	2.0
Denmark	2.4	0.5	0.3	0.2	0.0	1.1	1.6	1.8
Emerging markets <sup>1</sup>								
China	2.6	2.6	1.9	1.4	2.0	1.6	2.2	2.2
India	9.3	10.9	6.4	5.9	4.9	2.5	4.5	4.5
Brazil	5.4	6.2	6.3	9.0	8.7	3.5	4.0	4.2

<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: 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	2013	2014	2015	2016	2017	2018	2019
Household consumption expenditure	5 887	-0.6	0.9	1.8	2.0	1.8	1.6	1.4
General government consumption expenditure	2 219	0.3	0.7	1.3	1.7	1.1	1.2	1.1
Gross fixed capital formation	2 186	-2.4	1.9	3.0	4.5	4.0	4.2	3.3
Stockbuilding <sup>1</sup>	15	0.1	0.3	0.0	-0.1	0.1	0.0	0.0
Exports	4 929	2.2	4.6	6.1	3.3	4.8	4.2	3.7
Imports	4 454	1.4	4.9	6.5	4.7	4.6	4.3	3.9
<b>GDP</b>	<b>10 782</b>	<b>-0.2</b>	<b>1.4</b>	<b>2.0</b>	<b>1.8</b>	<b>2.4</b>	<b>2.1</b>	<b>1.8</b>
HICP <sup>2</sup>		1.3	0.4	0.0	0.2	1.5	1.5	1.7
Unemployment <sup>3</sup>		12.0	11.6	10.9	10.0	9.1	8.6	8.1
Policy rate <sup>4</sup>		0.25	0.05	0.05	0.00	0.00	0.00	0.50
10-year government bond yield <sup>5</sup>		1.6	1.2	0.5	0.1	0.4	0.6	1.1
USD/EUR <sup>6</sup>		1.33	1.33	1.11	1.11	1.13	1.18	1.18

<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.

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	2013	2014	2015	2016	2017	2018	2019
Household consumption expenditure	12 821	1.5	2.9	3.6	2.7	2.7	2.4	2.3
General government consumption expenditure	2 658	-2.4	-0.5	1.3	1.0	0.1	1.6	1.8
Gross fixed capital formation	3 632	3.1	4.8	3.5	0.6	3.2	3.8	4.1
Stockbuilding <sup>1</sup>	35	0.2	-0.1	0.2	-0.4	-0.1	0.0	0.0
Exports	2 215	3.5	4.3	0.4	-0.3	3.2	3.8	3.6
Imports	2 736	1.1	4.5	5.0	1.3	3.4	4.3	4.9
<b>GDP</b>	<b>18 624</b>	<b>1.7</b>	<b>2.6</b>	<b>2.9</b>	<b>1.5</b>	<b>2.2</b>	<b>2.5</b>	<b>2.3</b>
CPI <sup>2</sup>		1.5	1.6	0.1	1.3	2.1	2.3	2.3
Unemployment <sup>3</sup>		7.4	6.2	5.3	4.9	4.4	4.1	3.8
Policy rate <sup>4</sup>		0.25	0.25	0.50	0.75	1.50	2.25	2.75
10-year government bond yield <sup>5</sup>		2.4	2.5	2.1	1.8	2.3	2.6	3.0
USD/EUR <sup>6</sup>		1.33	1.33	1.11	1.11	1.13	1.18	1.18

<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, Macrobond and NIER.

**Table A5 Scenario for the global economy**

Percentage change and per cent, respectively

	2015	2016	2017	2018	2019	2020	2021	2022
GDP, OECD	2.5	1.8	2.4	2.3	2.1	1.8	1.7	1.7
GDP, euro area	2.0	1.8	2.4	2.1	1.8	1.5	1.1	1.0
GDP, US	2.9	1.5	2.2	2.5	2.3	1.9	1.6	1.6
GDP, emerging markets	4.2	4.4	4.9	4.8	4.9	4.8	4.8	4.7
GDP, global	3.4	3.2	3.8	3.7	3.7	3.6	3.5	3.4
HICP, euro area	0.0	0.2	1.5	1.5	1.7	1.9	1.9	1.9
CPI, US	0.1	1.3	2.1	2.3	2.3	2.3	2.3	2.3
Policy rate, euro area	0.05	0.00	0.00	0.00	0.50	1.00	1.50	1.75
Policy rate, US	0.50	0.75	1.50	2.25	2.75	3.00	3.00	3.25
Policy rate, KIX6-weighted	0.02	-0.14	-0.04	0.22	0.59	1.07	1.54	2.02
Overnight rate, euro area (Eonia)	-0.2	-0.4	-0.4	-0.1	0.3	0.8	1.3	1.7

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 2017–2019

**Table A6 GDP by expenditure**

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

	Level 2016	2013	2014	2015	2016	2017	2018	2019
Household consumption expenditure <sup>1</sup>	1 950	1.9	2.1	3.1	2.2	2.5	2.4	2.1
Goods	895	0.8	2.6	4.1	2.9	1.0	1.5	1.9
Services excl. housing	629	3.1	3.1	3.8	2.6	2.5	2.5	1.7
Housing	376	1.3	2.1	1.7	2.8	3.7	2.8	3.2
General government consumption expenditure	1 152	1.3	1.5	2.4	3.1	0.5	0.9	0.7
Central government	299	3.6	1.7	2.0	2.7	-1.7	0.4	0.6
Local government	853	0.4	1.5	2.6	3.2	1.2	1.1	0.7
Gross fixed capital formation <sup>2</sup>	1 060	0.6	5.5	6.9	5.6	7.4	5.9	2.7
Business sector excl. housing	647	0.7	4.2	5.9	2.3	5.8	7.9	4.0
Industry	162	1.8	8.8	-15.8	-0.7	7.3	10.5	3.5
Other goods producers	101	1.4	3.1	-0.1	-1.2	8.5	7.6	3.1
Service producers excl. housing	383	-0.2	1.8	21.8	4.6	4.5	6.8	4.4
Housing	227	0.9	15.6	18.0	14.3	13.8	2.6	0.2
General government	181	-0.3	1.6	0.3	8.2	5.8	3.4	1.4
Domestic demand excl. stockbuilding	4 161	1.4	2.7	3.8	3.3	3.2	3.0	1.9
Stockbuilding <sup>3</sup>	31	0.2	0.2	0.4	0.0	0.0	-0.2	0.0
Total domestic demand	4 192	1.6	2.9	4.3	3.3	3.1	2.7	1.9
Exports	1 950	-0.8	5.3	5.7	3.3	3.4	5.1	4.3
Exports of goods	1 322	-2.9	3.1	3.5	3.6	4.4	5.1	4.3
Processed goods	1 059	-0.9	1.6	3.9	3.2	5.6	5.6	4.7
Raw materials	264	-9.4	8.6	2.2	4.8	-0.3	3.3	2.7
Exports of services	628	5.0	10.4	10.7	2.7	1.3	5.0	4.3
Total demand	6 142	0.8	3.6	4.7	3.3	3.2	3.5	2.7
Imports	1 737	-0.1	6.3	5.2	3.4	5.1	5.0	4.2
Imports of goods	1 203	-1.7	4.6	5.4	5.0	3.7	4.8	4.4
Processed goods	901	-0.1	4.8	6.1	4.8	5.5	6.2	5.2
Raw materials	302	-5.2	4.2	3.7	5.6	-1.6	0.2	1.9
Imports of services	534	4.1	10.4	4.9	-0.2	8.1	5.5	3.7
Net exports <sup>3</sup>	213	-0.3	-0.2	0.4	0.1	-0.5	0.3	0.2
<b>GDP</b>	<b>4 405</b>	<b>1.2</b>	<b>2.6</b>	<b>4.5</b>	<b>3.2</b>	<b>2.5</b>	<b>2.9</b>	<b>2.0</b>
GDP per capita <sup>4</sup>	444	0.4	1.6	3.4	1.9	1.1	1.7	1.0

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

Note. There is a break in the time series between 2014 and 2015 due to changes in the industry classification of Ericsson AB. At the aggregated level, more activities are therefore classified in the service sector (SNI 45–98) and fewer in the manufacturing industry (SNI 05–33).

Sources: Statistics Sweden and NIER.

**Table A7 Household income, consumption expenditure and saving**

SEK billion, current prices, and percentage change, respectively

	Level 2016	2016	2017	2018	2019	2020	2021	2022
Total earnings, adjusted for external transactions	1 735	4.7	4.7	5.2	4.2	4.0	3.9	3.8
Hourly earnings (according to national accounts) <sup>1</sup>		2.2	2.8	3.2	3.3	3.7	3.9	3.9
Hours worked <sup>1,2</sup>		2.7	1.8	1.9	0.9	0.3	0.0	-0.1
Transfers from government sector, net	612	3.1	2.1	2.8	2.6	3.4	3.7	4.1
Property income, net	297	12.4	4.2	2.7	0.3	0.6	-3.3	1.1
Other income, net	313	9.5	5.4	4.4	4.0	5.3	5.3	5.3
<b>Income before taxes<sup>3</sup></b>	<b>2 957</b>	<b>5.6</b>	<b>4.2</b>	<b>4.4</b>	<b>3.5</b>	<b>3.7</b>	<b>3.3</b>	<b>3.8</b>
Direct taxes <sup>4</sup>	798	-1.2	-0.2	0.7	-0.5	-0.9	0.0	0.0
<b>Disposable income</b>	<b>2 159</b>	<b>4.3</b>	<b>4.0</b>	<b>5.0</b>	<b>3.0</b>	<b>2.8</b>	<b>3.3</b>	<b>3.8</b>
Consumer prices <sup>5</sup>		1.0	1.8	1.6	1.6	2.1	2.0	2.0
<b>Real disposable income</b>	<b>2 159</b>	<b>3.3</b>	<b>2.2</b>	<b>3.4</b>	<b>1.4</b>	<b>0.7</b>	<b>1.3</b>	<b>1.7</b>
Per capita <sup>6</sup>	218	2.0	0.8	2.2	0.4	-0.3	0.2	0.7
<b>Consumption expenditure<sup>7</sup></b>	<b>1 950</b>	<b>2.2</b>	<b>2.5</b>	<b>2.4</b>	<b>2.1</b>	<b>2.1</b>	<b>2.1</b>	<b>2.1</b>
Saving <sup>8</sup>	386	16.5	16.3	16.9	16.2	15.0	14.1	13.6
Own saving <sup>8</sup>	209	9.7	9.5	10.3	9.6	8.4	7.7	7.3
Net lending <sup>8</sup>	306	13.1	12.8	13.5	12.8	11.5	10.7	10.3

<sup>1</sup> Calendar-adjusted values. <sup>2</sup> Employees only. <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> Constant prices, reference year 2015. <sup>8</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 A8 Current account and net lending**

SEK billion, current prices, and per cent, respectively

	2012	2013	2014	2015	2016	2017	2018	2019
Net exports, goods	138	122	123	127	119	134	146	156
Net exports, services	44	48	47	77	94	59	60	68
Earnings, net	18	17	18	14	11	12	12	13
Investment income, net	61	63	63	45	56	81	86	91
Transfers etc., net	-56	-58	-62	-64	-53	-65	-75	-79
<b>Current account balance</b>	<b>205</b>	<b>192</b>	<b>190</b>	<b>200</b>	<b>227</b>	<b>221</b>	<b>229</b>	<b>248</b>
<i>Per cent of GDP</i>	5.6	5.1	4.8	4.8	5.1	4.8	4.7	4.9
Capital transfers	-6	-9	-5	-8	-3	-3	-5	-5
<b>Net lending</b>	<b>199</b>	<b>183</b>	<b>184</b>	<b>192</b>	<b>224</b>	<b>217</b>	<b>224</b>	<b>244</b>
<i>Per cent of GDP</i>	5.4	4.9	4.7	4.6	5.1	4.7	4.6	4.9

Sources: Statistics Sweden and NIER.



**Table A9 GNI**

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

	Level 2016	2013	2014	2015	2016	2017	2018	2019
GNI	4 475	2.3	4.4	5.9	5.0	5.0	4.9	4.0
Deflator, domestic use		1.1	1.7	1.7	1.6	2.1	2.0	1.9
<b>Real GNI</b>		<b>1.2</b>	<b>2.6</b>	<b>4.1</b>	<b>3.3</b>	<b>2.8</b>	<b>2.8</b>	<b>2.1</b>
Population <sup>1</sup>	9 923	0.9	1.0	1.1	1.3	1.4	1.1	1.0
<b>Real GNI per capita<sup>2</sup></b>	<b>451</b>	<b>0.3</b>	<b>1.6</b>	<b>3.0</b>	<b>2.1</b>	<b>1.5</b>	<b>1.7</b>	<b>1.1</b>

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

Sources: Statistics Sweden and NIER.

**Table A10 Production**

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

	Level 2016	2013	2014	2015	2016	2017	2018	2019
Goods producers	1 003	-1.8	0.9	-2.3	2.5	3.9	3.9	2.2
Of which: Industry	610	-1.1	-0.5	-5.5	2.6	3.3	4.9	3.2
Construction	232	-3.8	3.0	5.3	4.1	8.0	2.4	0.7
Service producers	2 046	3.9	4.5	8.9	3.4	2.9	3.5	2.8
Business sector	3 049	1.8	3.2	5.0	3.1	3.2	3.6	2.6
General government	783	-0.3	1.2	0.7	1.2	1.4	1.3	0.6
<b>GDP at basic prices<sup>1</sup></b>	<b>3 884</b>	<b>1.3</b>	<b>2.8</b>	<b>4.1</b>	<b>2.7</b>	<b>2.8</b>	<b>3.1</b>	<b>2.2</b>
Taxes/subsidies on products	510	0.5	2.2	5.5	4.8	2.1	1.6	1.2
GDP at market prices	4 394	1.2	2.7	4.3	3.0	2.7	3.0	2.1

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

Note. Production refers here to value added. There is a break in the time series between 2014 and 2015 due to changes in the industry classification of Ericsson AB. At the aggregated level, more activities are therefore classified in the service sector (SNI 45–98) and fewer in the manufacturing industry (SNI 05–33).

Sources: Statistics Sweden and NIER.

**Table A11 Hours worked**

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

	Level 2016	2013	2014	2015	2016	2017	2018	2019
Goods producers	1 877	-0.6	0.3	-2.1	-0.1	1.8	1.3	0.2
Of which: Industry	970	-2.4	-1.1	-4.2	-1.0	1.1	1.2	0.1
Construction	586	0.7	2.5	1.8	2.7	3.6	2.0	0.6
Services producers	3 701	0.8	2.5	2.5	2.4	1.3	2.3	1.5
Business sector	5 578	0.3	1.7	0.9	1.5	1.5	2.0	1.0
General government	2 154	0.6	2.1	0.7	3.6	2.3	1.9	0.6
<b>Total economy<sup>1</sup></b>	<b>7 905</b>	<b>0.4</b>	<b>1.8</b>	<b>0.9</b>	<b>2.1</b>	<b>1.7</b>	<b>1.9</b>	<b>0.9</b>

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

Note. There is a break in the time series between 2014 and 2015 due to changes in the industry classification of Ericsson AB. At the aggregated level, more activities are therefore classified in the service sector (SNI 45–98) and fewer in the manufacturing industry (SNI 05–33).

Sources: Statistics Sweden and NIER.

**Table A12 Productivity**

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

	Level 2016	2013	2014	2015	2016	2017	2018	2019
Goods producers	534	-1.2	0.5	-0.2	2.6	2.1	2.5	2.0
Of which: Industry	629	1.4	0.6	-1.3	3.6	2.2	3.7	3.1
Construction	396	-4.4	0.5	3.5	1.4	4.2	0.4	0.1
Service producers	553	3.0	2.0	6.3	1.0	1.5	1.2	1.3
Business sector	547	1.5	1.5	4.1	1.6	1.7	1.6	1.5
General government	363	-1.0	-0.9	0.0	-2.3	-0.9	-0.6	0.0
<b>Total economy<sup>1</sup></b>	<b>491</b>	<b>0.9</b>	<b>1.0</b>	<b>3.2</b>	<b>0.6</b>	<b>1.1</b>	<b>1.2</b>	<b>1.2</b>

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

Note. There is a break in the time series between 2014 and 2015 due to changes in the industry classification of Ericsson AB. At the aggregated level, more activities are therefore classified in the service sector (SNI 45–98) and fewer in the manufacturing industry (SNI 05–33).

Sources: Statistics Sweden and NIER.

**Table A13 The labour market**

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

	Level 2016	2013	2014	2015	2016	2017	2018	2019
Hours worked <sup>1</sup>	7 905	0.4	1.8	0.9	2.1	1.7	1.9	0.9
Average hours worked for employed <sup>2</sup>	31.0	-0.6	0.3	-0.5	0.6	-0.6	0.5	0.2
Number of employed	4 910	1.0	1.4	1.4	1.5	2.3	1.4	0.7
Employment rate <sup>3</sup>		65.7	66.2	66.7	67.1	67.9	68.4	68.5
Labour force	5 277	1.1	1.3	0.8	1.0	2.0	1.1	0.5
Labour force participation rate <sup>4</sup>		71.5	71.9	72.0	72.1	72.7	73.0	73.0
Unemployment <sup>5</sup>	366	8.0	7.9	7.4	6.9	6.7	6.4	6.2
Population aged 15–74	7 323	0.6	0.7	0.7	0.9	1.1	0.7	0.5

<sup>1</sup> Million hours, calendar-adjusted values. <sup>2</sup> Hours per week, calendar-adjusted values. <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 and NIER.

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

Per cent and percentage change, respectively

	Weight 2016	2013	2014	2015	2016	2017	2018	2019
Business sector	68	2.3	2.9	2.3	2.3	2.4	2.9	3.3
Industry	16	2.0	2.5	2.4	2.0	2.1	2.8	3.3
Construction	7	3.0	3.1	1.6	2.7	2.0	2.7	2.9
Services	46	2.3	2.9	2.3	2.3	2.5	2.9	3.3
Local government	26	2.9	2.8	2.7	2.7	3.6	3.3	3.3
Central government	6	2.6	2.3	2.6	2.4	2.6	3.1	3.4
<b>Total</b>	<b>100</b>	<b>2.5</b>	<b>2.8</b>	<b>2.4</b>	<b>2.4</b>	<b>2.7</b>	<b>3.0</b>	<b>3.3</b>
Real hourly earnings (CPI) <sup>1</sup>		2.5	3.0	2.5	1.4	0.9	1.3	1.0
Real hourly earnings (CPIF) <sup>2</sup>		1.6	2.3	1.6	1.0	0.7	1.2	1.5

<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 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	2013	2014	2015	2016	2017	2018	2019
Hourly earnings	236	1.7	1.9	3.1	2.4	2.8	3.1	3.3
Employers' social contributions <sup>1</sup> (per cent of earnings)		41.4	41.4	42.0	43.3	43.4	43.4	43.4
Hourly labour costs <sup>2</sup>	338	2.0	2.0	3.6	3.3	2.9	3.1	3.3
Productivity <sup>3</sup>		1.2	1.4	3.8	0.8	1.6	1.6	1.5
Unit labour costs		0.8	0.5	-0.2	2.5	1.3	1.4	1.8

<sup>1</sup> Employers' social contributions and payroll taxes. <sup>2</sup> Earnings and employers' social contributions. <sup>3</sup> 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	2013	2014	2015	2016	2017	2018	2019
GDP	71.7	1.1	1.8	2.1	1.6	2.0	2.0	1.9
General government <sup>1,2</sup>	13.6	3.6	2.6	3.2	3.5	3.8	3.2	3.2
Business sector <sup>2</sup>	49.8	0.4	1.7	1.9	1.1	1.6	1.7	1.6
Product taxes, net	8.3	0.8	0.9	1.0	1.3	1.9	1.5	2.0
Imports	28.3	-2.8	1.8	1.3	-1.7	3.5	1.4	-0.2
Processed goods	14.7	-3.7	2.4	4.0	-1.4	2.2	0.3	-0.8
Raw materials	4.9	-3.6	-1.5	-10.2	-4.7	12.7	3.5	-0.4
Services	8.7	-0.4	3.2	4.4	-0.3	1.1	2.2	1.0
<b>Supply/use<sup>3</sup></b>	<b>100.0</b>	<b>-0.1</b>	<b>1.8</b>	<b>1.8</b>	<b>0.7</b>	<b>2.5</b>	<b>1.8</b>	<b>1.3</b>
General government consumption expenditure	18.8	2.6	2.4	2.9	2.9	3.4	3.0	3.1
Household consumption expenditure	31.7	0.7	1.1	0.9	1.0	1.8	1.6	1.6
Gross fixed capital formation	17.3	0.3	2.2	2.0	1.3	2.1	1.2	1.2
Exports	31.8	-2.5	2.0	2.1	-1.3	3.2	1.3	0.1
Processed goods	17.2	-3.3	2.8	4.4	-1.3	1.8	0.3	-0.5
Raw materials	4.3	-2.7	-0.4	-8.1	-3.5	14.6	3.6	0.6
Services	10.2	-0.9	1.8	3.2	-0.3	1.0	2.1	1.2

<sup>1</sup> Including non-profit institutions serving households. <sup>2</sup> Value added price deflator calculated at basic prices. <sup>3</sup> 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	2013	2014	2015	2016	2017	2018	2019
Value added, constant prices <sup>1</sup>		1.8	3.1	5.3	3.4	3.0	3.6	2.6
Value-added deflator		0.4	1.7	1.9	1.1	1.6	1.7	1.6
Value added, current prices <sup>2</sup>	3 052	2.1	5.0	7.1	4.4	4.5	5.3	4.2
Hours worked, employees		0.6	1.5	1.9	3.0	0.9	1.7	1.0
Hourly labour costs <sup>3</sup>	336	2.0	2.3	2.9	2.7	3.6	3.4	3.4
Total labour costs <sup>4</sup>	1 758	2.6	3.8	4.8	5.7	4.6	5.1	4.4
Gross profit	1 294	1.4	6.6	10.3	2.7	4.5	5.5	4.0
<b>Profit share</b>		<b>41.2</b>	<b>41.9</b>	<b>43.1</b>	<b>42.4</b>	<b>42.4</b>	<b>42.5</b>	<b>42.4</b>
Adjusted profit share <sup>5</sup>		33.7	34.5	36.5	36.0	36.1	36.3	36.2

<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 A18 Consumer prices**

Per cent and percentage change, respectively

	Weight 2017	2013	2014	2015	2016	2017	2018	2019
<b>CPI</b>	<b>100</b>	<b>0.0</b>	<b>-0.2</b>	<b>0.0</b>	<b>1.0</b>	<b>1.8</b>	<b>1.7</b>	<b>2.3</b>
Mortgage interest costs, mortgage interest rate		-14.7	-11.5	-20.8	-13.1	-3.0	-1.6	12.4
<b>CPIF</b>	<b>100</b>	<b>0.9</b>	<b>0.5</b>	<b>0.9</b>	<b>1.4</b>	<b>2.0</b>	<b>1.8</b>	<b>1.8</b>
Goods	44	0.2	-0.1	1.2	0.4	0.3	0.3	0.4
Services	30	0.8	0.5	1.1	2.0	2.9	2.5	2.5
Housing excl. mortgage interest costs and energy	15	2.0	1.7	1.5	1.9	1.4	1.7	1.7
Energy	7	-1.8	-2.5	-4.9	1.3	5.8	4.6	4.4
Mortgage interest costs, capital stock	4	5.2	5.0	5.4	5.8	9.4	6.9	6.1
<b>CPIF excl. energy</b>	<b>93</b>	<b>1.1</b>	<b>0.7</b>	<b>1.4</b>	<b>1.4</b>	<b>1.7</b>	<b>1.5</b>	<b>1.6</b>
HICP		0.4	0.2	0.7	1.1	1.9	1.6	1.6
Crude oil (Brent) <sup>1</sup>		108.8	99.6	53.5	45.1	54.7	61.6	60.7

<sup>1</sup> 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 2017–2022

**Table A19 Resource utilisation**

Percentage change, calendar-adjusted values, unless otherwise indicated

	2015	2016	2017	2018	2019	2020	2021	2022
<b>Labour market</b>								
Equilibrium unemployment <sup>1</sup>	6.7	6.8	6.8	6.9	6.9	6.9	6.9	6.8
Actual unemployment <sup>2</sup>	7.4	6.9	6.7	6.4	6.2	6.3	6.4	6.7
Potential hours worked	1.0	1.0	0.9	0.9	0.7	0.6	0.6	0.7
Of which: Potential employment	1.0	1.1	1.1	0.8	0.5	0.4	0.6	0.7
Actual hours worked	0.9	2.1	1.7	1.9	0.9	0.3	0.0	-0.1
Labour market gap <sup>3</sup>	-1.3	-0.2	0.6	1.6	1.8	1.5	1.0	0.2
<b>Productivity</b>								
Potential productivity	1.1	0.6	1.1	1.3	1.4	1.5	1.5	1.4
Of which: Potential productivity, business sector	1.5	1.5	1.7	1.9	1.9	1.9	1.9	1.9
Actual productivity	3.3	0.9	1.0	1.0	1.1	1.1	1.2	1.5
Productivity gap <sup>4</sup>	0.8	1.1	1.0	0.7	0.5	0.1	-0.1	0.0
<b>GDP</b>								
Potential GDP	2.1	1.7	2.0	2.2	2.1	2.0	2.0	2.1
Actual GDP	4.3	3.0	2.7	3.0	2.1	1.4	1.3	1.4
Output gap <sup>5</sup>	-0.5	0.8	1.6	2.3	2.3	1.7	0.9	0.2

<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

	2015	2016	2017	2018	2019	2020	2021	2022
Population	1.1	1.3	1.4	1.1	1.0	1.0	1.1	1.1
Population aged 15–74	0.7	0.9	1.1	0.7	0.5	0.5	0.5	0.6
GDP <sup>1</sup>	4.3	3.0	2.7	3.0	2.1	1.4	1.3	1.4
GDP per capita <sup>1</sup>	3.2	1.7	1.4	1.8	1.0	0.4	0.2	0.3
Hours worked <sup>1</sup>	0.9	2.1	1.7	1.9	0.9	0.3	0.0	-0.1
Productivity	3.2	0.6	1.1	1.2	1.2	1.1	1.2	1.5
Labour force	0.8	1.0	2.0	1.1	0.5	0.4	0.3	0.5
Employment	1.4	1.5	2.3	1.4	0.7	0.3	0.1	0.2
Employment rate <sup>2</sup>	66.7	67.1	67.9	68.4	68.5	68.4	68.1	67.8
Unemployment <sup>3</sup>	7.4	6.9	6.7	6.4	6.2	6.3	6.4	6.7
Hourly earnings <sup>4</sup>	2.4	2.4	2.7	3.0	3.3	3.7	3.9	3.9
Hourly labor cost <sup>1</sup>	3.6	3.0	2.9	3.1	3.3	3.7	3.9	3.9
Unit labour cost	0.6	2.9	1.8	1.9	2.1	2.5	2.6	2.4
CPI	0.0	1.0	1.8	1.7	2.3	2.9	2.7	2.5
CPIF	0.9	1.4	2.0	1.8	1.8	2.1	2.0	2.0
Government net lending <sup>5</sup>	0.2	1.2	1.0	0.9	1.1	1.2	0.9	0.6
Structural net lending <sup>6</sup>	0.0	0.6	0.3	-0.1	0.1	0.5	0.5	0.5

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

	2015	2016	2017	2018	2019	2020	2021	2022
Household consumption expenditure	3.0	2.1	2.5	2.5	2.2	2.1	2.0	2.1
General government consumption expenditure	2.1	2.7	0.8	1.1	0.7	1.3	1.5	1.6
Gross fixed capital formation	6.6	5.2	7.9	6.1	2.8	0.6	0.0	0.4
<i>Domestic demand excl. stockbuilding</i>	3.7	3.0	3.4	3.0	1.9	1.5	1.3	1.5
Stockbuilding <sup>1</sup>	0.4	0.0	0.0	-0.2	0.0	0.0	0.0	0.0
<i>Total domestic demand</i>	4.0	3.0	3.4	2.8	1.9	1.4	1.3	1.5
Exports	5.3	2.9	3.9	5.3	4.3	3.3	3.1	3.1
<i>Total demand</i>	4.4	3.0	3.5	3.6	2.7	2.0	1.9	2.0
Imports	4.8	3.0	5.5	5.2	4.2	3.5	3.3	3.4
<i>Net exports<sup>1</sup></i>	0.4	0.1	-0.5	0.3	0.2	0.1	0.0	0.0
<b>GDP</b>	<b>4.3</b>	<b>3.0</b>	<b>2.7</b>	<b>3.0</b>	<b>2.1</b>	<b>1.4</b>	<b>1.3</b>	<b>1.4</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

	2015	2016	2017	2018	2019	2020	2021	2022
<b>At year-end</b>								
Repo rate	-0.35	-0.50	-0.50	-0.25	0.25	1.25	1.75	2.50
<b>Annual average</b>								
Repo rate	-0.3	-0.5	-0.5	-0.4	0.0	0.8	1.5	2.1
5-year government bond yield	0.2	-0.2	-0.1	0.2	1.0	1.8	2.4	2.9
10-year government bond yield	0.7	0.5	0.7	1.0	1.6	2.2	2.6	3.1
Effective krona exchange rate index (KIX)	112.6	111.7	112.9	113.5	111.7	109.9	108.1	106.2
EUR exchange rate	9.4	9.5	9.6	9.8	9.7	9.5	9.4	9.2
USD exchange rate	8.4	8.6	8.5	8.3	8.2	8.1	8.0	7.8

Sources: Sveriges Riksbank, Macrobond and NIER.

## Public finances 2017–2022

**Table A23 General government finances**

SEK billion and percentage of GDP, respectively, current prices

	2015	2016	2017	2018	2019	2020	2021	2022
<b>Revenue</b>	<b>2 047</b>	<b>2 184</b>	<b>2 266</b>	<b>2 346</b>	<b>2 442</b>	<b>2 557</b>	<b>2 658</b>	<b>2 766</b>
<i>Per cent of GDP</i>	48.7	49.6	49.2	48.6	48.6	48.9	49.1	49.4
Taxes and duties	1 803	1 935	2 011	2 082	2 171	2 272	2 354	2 444
<i>Per cent of GDP</i>	42.9	43.9	43.6	43.1	43.2	43.5	43.5	43.6
<i>Tax-to-GDP ratio<sup>1</sup></i>	43.1	44.1	43.8	43.2	43.3	43.6	43.7	43.7
Property income	62	66	65	68	70	77	89	101
Other revenue	182	183	190	195	201	208	214	221
<b>Expenditure</b>	<b>2 041</b>	<b>2 131</b>	<b>2 217</b>	<b>2 305</b>	<b>2 387</b>	<b>2 494</b>	<b>2 611</b>	<b>2 735</b>
<i>Per cent of GDP</i>	48.6	48.4	48.1	47.7	47.5	47.7	48.3	48.8
Consumption expenditure	1 087	1 152	1 196	1 244	1 291	1 356	1 423	1 492
Transfers	750	767	791	822	849	878	911	947
Households	604	624	637	654	671	694	719	749
Corporations	74	83	84	89	91	95	99	103
Abroad	71	61	71	80	86	90	93	96
Capital formation	178	187	206	216	223	228	233	239
Property expenditure	26	26	24	23	25	32	44	56
<b>Net lending</b>	<b>7</b>	<b>53</b>	<b>48</b>	<b>41</b>	<b>55</b>	<b>63</b>	<b>47</b>	<b>32</b>
<i>Per cent of GDP</i>	0.2	1.2	1.0	0.9	1.1	1.2	0.9	0.6
<b>Primary net lending</b>	<b>-29</b>	<b>12</b>	<b>7</b>	<b>-4</b>	<b>10</b>	<b>18</b>	<b>2</b>	<b>-13</b>
<i>Per cent of GDP</i>	-0.7	0.3	0.2	-0.1	0.2	0.3	0.0	-0.2
<b>Maastricht debt</b>	<b>1 855</b>	<b>1 859</b>	<b>1 815</b>	<b>1 797</b>	<b>1 743</b>	<b>1 719</b>	<b>1 714</b>	<b>1 729</b>
<i>Per cent of GDP</i>	44.2	42.2	39.4	37.2	34.7	32.9	31.7	30.8
GDP, current prices	4 200	4 405	4 607	4 831	5 025	5 224	5 410	5 604
Potential GDP, current prices	4 220	4 368	4 536	4 720	4 913	5 139	5 364	5 594
Net financial wealth	798	995	1 183	1 242	1 331	1 441	1 536	1 616
<i>Per cent of GDP</i>	19.0	22.6	25.7	25.7	26.5	27.6	28.4	28.8

<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

	2015	2016	2017	2018	2019	2020	2021	2022
<b>Revenue</b>	<b>1 066</b>	<b>1 156</b>	<b>1 191</b>	<b>1 224</b>	<b>1 273</b>	<b>1 325</b>	<b>1 359</b>	<b>1 400</b>
Taxes and duties	927	1 012	1 049	1 077	1 122	1 168	1 193	1 223
Property income	22	24	21	23	23	25	28	33
Other revenue	116	119	121	124	127	133	138	144
<b>Expenditure</b>	<b>1 053</b>	<b>1 086</b>	<b>1 124</b>	<b>1 157</b>	<b>1 186</b>	<b>1 233</b>	<b>1 290</b>	<b>1 351</b>
Transfers	656	677	708	728	738	765	795	829
Old-age pension system <sup>1</sup>	23	25	24	23	21	21	21	22
Local government sector	219	247	269	271	269	281	293	307
Households	301	300	300	308	314	324	336	350
Corporations	45	48	48	51	52	54	56	59
Abroad	68	57	67	76	82	85	88	91
Consumption expenditure	286	295	301	312	324	339	354	371
Capital formation	89	93	96	100	105	110	115	119
Property expenditure	22	21	19	17	18	19	26	33
Of which interest expenditure	17	16	14	11	13	13	20	26
<b>Net lending</b>	<b>12</b>	<b>69</b>	<b>67</b>	<b>67</b>	<b>87</b>	<b>92</b>	<b>70</b>	<b>49</b>
<i>Per cent of GDP</i>	<i>0.3</i>	<i>1.6</i>	<i>1.5</i>	<i>1.4</i>	<i>1.7</i>	<i>1.8</i>	<i>1.3</i>	<i>0.9</i>
Central government debt	1 352	1 292	1 222	1 172	1 087	1 025	983	963
<i>Per cent of GDP</i>	<i>32.2</i>	<i>29.3</i>	<i>26.5</i>	<i>24.3</i>	<i>21.6</i>	<i>19.6</i>	<i>18.2</i>	<i>17.2</i>
Net financial wealth	-431	-303	-221	-154	-65	46	136	205
<i>Per cent of GDP</i>	<i>-10.3</i>	<i>-6.9</i>	<i>-4.8</i>	<i>-3.2</i>	<i>-1.3</i>	<i>0.9</i>	<i>2.5</i>	<i>3.7</i>

<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

	2015	2016	2017	2018	2019	2020	2021	2022
<b>Revenue</b>	<b>279</b>	<b>292</b>	<b>303</b>	<b>315</b>	<b>325</b>	<b>337</b>	<b>352</b>	<b>367</b>
Social insurance contributions	224	234	245	258	268	279	290	301
Central government's old-age pension contributions	23	25	24	23	21	21	21	22
Property income	30	31	33	34	34	35	39	42
Other revenue	1	2	2	2	2	2	2	2
<b>Expenditure</b>	<b>270</b>	<b>288</b>	<b>302</b>	<b>312</b>	<b>323</b>	<b>335</b>	<b>348</b>	<b>362</b>
Income pensions	265	282	296	305	317	328	340	354
Property expenditure	0	0	0	0	0	0	0	1
Other expenses	5	6	6	6	6	7	7	7
<b>Net lending</b>	<b>8</b>	<b>4</b>	<b>1</b>	<b>4</b>	<b>2</b>	<b>2</b>	<b>4</b>	<b>6</b>
<i>Per cent of GDP</i>	<i>0.2</i>	<i>0.1</i>	<i>0.0</i>	<i>0.1</i>	<i>0.0</i>	<i>0.0</i>	<i>0.1</i>	<i>0.1</i>
Net financial wealth	1 246	1 347	1 467	1 484	1 510	1 533	1 558	1 584
<i>Per cent of GDP</i>	<i>29.7</i>	<i>30.6</i>	<i>31.8</i>	<i>30.7</i>	<i>30.1</i>	<i>29.3</i>	<i>28.8</i>	<i>28.3</i>

Sources: Statistics Sweden and NIER.



**Table A26 Local government finances**

SEK billion and percentage of GDP, respectively, current prices

	2015	2016	2017	2018	2019	2020	2021	2022
<b>Revenue</b>	<b>957</b>	<b>1 020</b>	<b>1 074</b>	<b>1 110</b>	<b>1 145</b>	<b>1 207</b>	<b>1 272</b>	<b>1 340</b>
Taxes	636	672	701	731	763	807	853	901
Municipal property tax	16	16	16	17	17	18	19	19
Central government grants incl. VAT compensation	218	242	265	267	264	276	288	302
Property income	11	11	11	11	13	17	22	26
Other revenue	76	78	81	84	87	89	90	91
<i>Average municipal tax rate<sup>1</sup></i>	<i>31.99</i>	<i>32.10</i>	<i>32.12</i>	<i>32.17</i>	<i>32.25</i>	<i>32.77</i>	<i>33.28</i>	<i>33.76</i>
<b>Expenditure</b>	<b>971</b>	<b>1 040</b>	<b>1 094</b>	<b>1 140</b>	<b>1 178</b>	<b>1 239</b>	<b>1 299</b>	<b>1 362</b>
Transfers	80	88	87	91	92	95	98	102
Households	41	43	43	43	43	44	46	48
Other	38	45	44	47	49	51	53	54
Consumption expenditure	797	853	892	928	962	1 012	1 064	1 117
Capital formation	89	94	110	116	117	118	119	119
Property expenditure	5	5	5	5	7	13	18	24
<b>Net lending</b>	<b>-14</b>	<b>-20</b>	<b>-20</b>	<b>-30</b>	<b>-33</b>	<b>-31</b>	<b>-27</b>	<b>-22</b>
<i>Per cent of GDP</i>	<i>-0.3</i>	<i>-0.5</i>	<i>-0.4</i>	<i>-0.6</i>	<i>-0.7</i>	<i>-0.6</i>	<i>-0.5</i>	<i>-0.4</i>
Net financial wealth	-17	-50	-64	-87	-114	-139	-159	-174
<i>Per cent of GDP</i>	<i>-0.4</i>	<i>-1.1</i>	<i>-1.4</i>	<i>-1.8</i>	<i>-2.3</i>	<i>-2.7</i>	<i>-2.9</i>	<i>-3.1</i>

<sup>1</sup> Per cent.

Sources: Statistics Sweden and NIER.

**Table A27 General government revenue**

Per cent of GDP

	2015	2016	2017	2018	2019	2020	2021	2022
Direct household taxes	15.4	15.9	15.8	15.5	15.7	16.0	16.0	16.1
Direct business taxes	3.0	2.8	2.7	2.7	2.7	2.7	2.7	2.7
Employers' social contributions <sup>1</sup>	11.7	12.0	12.1	12.1	12.1	12.1	12.2	12.2
VAT	9.0	9.2	9.2	9.1	9.1	9.1	9.1	9.1
Excise	2.3	2.2	2.2	2.1	2.1	2.1	2.1	2.1
Other taxes	1.7	1.8	1.8	1.8	1.7	1.6	1.6	1.6
<b>Tax-to-GDP ratio<sup>2</sup></b>	<b>43.1</b>	<b>44.1</b>	<b>43.8</b>	<b>43.2</b>	<b>43.3</b>	<b>43.6</b>	<b>43.7</b>	<b>43.7</b>
EU taxes <sup>3</sup>	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1
Other revenue <sup>4</sup>	4.3	4.2	4.1	4.0	4.0	4.0	4.0	3.9
<b>General government primary revenue</b>	<b>47.3</b>	<b>48.1</b>	<b>47.8</b>	<b>47.1</b>	<b>47.2</b>	<b>47.5</b>	<b>47.5</b>	<b>47.6</b>
Property income	1.5	1.5	1.4	1.4	1.4	1.5	1.6	1.8
<b>Total revenue</b>	<b>48.7</b>	<b>49.6</b>	<b>49.2</b>	<b>48.6</b>	<b>48.6</b>	<b>48.9</b>	<b>49.1</b>	<b>49.4</b>

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

Sources: Statistics Sweden and NIER.

**Table A28 General government expenditure**

Per cent of GDP

	2015	2016	2017	2018	2019	2020	2021	2022
General government consumption expenditure	25.9	26.1	26.0	25.7	25.7	26.0	26.3	26.6
Transfers	17.8	17.4	17.2	17.0	16.9	16.8	16.8	16.9
Households	14.4	14.2	13.8	13.5	13.4	13.3	13.3	13.4
Corporations	1.8	1.9	1.8	1.8	1.8	1.8	1.8	1.8
Abroad	1.7	1.4	1.5	1.6	1.7	1.7	1.7	1.7
Gross fixed capital formation	4.2	4.2	4.5	4.5	4.4	4.4	4.3	4.3
General government primary expenditure	48.0	47.8	47.6	47.2	47.0	47.1	47.4	47.8
Property expenditure	0.6	0.6	0.5	0.5	0.5	0.6	0.8	1.0
<b>Total expenditure</b>	<b>48.6</b>	<b>48.4</b>	<b>48.1</b>	<b>47.7</b>	<b>47.5</b>	<b>47.7</b>	<b>48.3</b>	<b>48.8</b>

Sources: Statistics Sweden and NIER.

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

Per cent of GDP

	2015	2016	2017	2018	2019	2020	2021	2022
Pensions <sup>1</sup>	7.8	7.8	7.7	7.5	7.5	7.4	7.4	7.4
Of which income pension	6.2	6.4	6.4	6.3	6.3	6.2	6.2	6.3
Labour market <sup>2</sup>	0.8	0.7	0.7	0.6	0.6	0.6	0.6	0.6
Illness and disability <sup>3</sup>	1.9	1.8	1.7	1.6	1.5	1.5	1.5	1.5
Family and children <sup>4</sup>	1.7	1.7	1.7	1.7	1.7	1.7	1.8	1.8
Education <sup>5</sup>	0.3	0.3	0.3	0.3	0.4	0.4	0.3	0.3
Social assistance <sup>6</sup>	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.3
Other <sup>7</sup>	1.6	1.5	1.5	1.5	1.5	1.5	1.4	1.5
<b>Transfers to households</b>	<b>14.4</b>	<b>14.2</b>	<b>13.8</b>	<b>13.5</b>	<b>13.4</b>	<b>13.3</b>	<b>13.3</b>	<b>13.4</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 other 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

	2015	2016	2017	2018	2019	2020	2021	2022
Income index	2.1	2.0	3.7	1.5	3.7	3.5	3.7	3.9
Balance index	2.5	5.9	4.4	2.3	4.0	3.5	3.7	3.9
Balance ratio <sup>1,2</sup>	1.004	1.038	1.007	1.013	1.010	1.015	1.013	1.010
<b>Nominal income pension<sup>3</sup></b>	<b>0.9</b>	<b>4.2</b>	<b>2.8</b>	<b>0.7</b>	<b>2.0</b>	<b>1.9</b>	<b>2.0</b>	<b>2.3</b>

<sup>1</sup> Level. <sup>2</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>3</sup> 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

	2015	2016	2017	2018	2019
<b>Budget balance</b>	<b>-32.6</b>	<b>85.3</b>	<b>47.0</b>	<b>36.4</b>	<b>83.8</b>
Adjustments to net lending	10.3	17.9	8.5	7.3	4.1
Sales of shares etc.	0.0	-0.2	0.0	0.0	0.0
Extra dividends	-11.3	-2.1	0.0	0.0	0.0
On-lending	16.7	27.7	11.5	17.1	3.5
Other adjustments	5.0	-7.5	-2.9	-9.8	0.6
Accruals	32.5	-39.8	12.0	23.7	-0.9
Of which: Tax accruals	33.4	-30.7	18.3	19.2	-4.9
Interest accruals	-2.7	-8.3	-3.5	4.5	4.0
Other	2.1	6.0	-0.4	-0.5	-0.5
<b>Central government net lending</b>	<b>12.3</b>	<b>69.4</b>	<b>67.1</b>	<b>67.0</b>	<b>86.5</b>
Central government borrowing requirement <sup>1</sup>	32.6	-85.3	-47.0	-36.4	-83.8
Stock-flow adjustments, central government debt	-27.3	25.0	-23.3	-13.0	-1.6
Central government debt, change	5.3	-60.3	-70.3	-49.4	-85.4
<b>Central government debt</b>	<b>1 352</b>	<b>1 292</b>	<b>1 222</b>	<b>1 172</b>	<b>1 087</b>
<i>Per cent of GDP</i>	32.2	29.3	26.5	24.3	21.6

<sup>1</sup> 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

	2015	2016	2017	2018	2019	2020
<b>Central government expenditure ceiling</b>	<b>1 158</b>	<b>1 215</b>	<b>1 274</b>	<b>1 337</b>	<b>1 397</b>	<b>1 471</b>
<i>Per cent of potential GDP</i>	27.4	27.8	28.1	28.3	28.4	28.6
Capped expenditure	1 135	1 184	1 227	1 273	1 308	1 358
<i>Per cent of potential GDP</i>	26.9	27.1	27.0	27.0	26.6	26.4
<b>Budgeting margin</b>	<b>23</b>	<b>31</b>	<b>47</b>	<b>64</b>	<b>89</b>	<b>113</b>
<i>Per cent of capped expenditure</i>	2.0	2.6	3.9	5.0	6.8	8.3

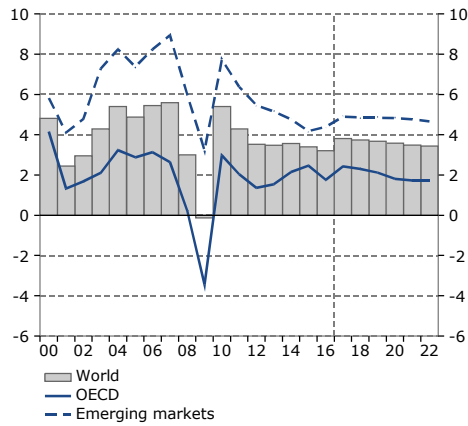
Sources: Swedish National Financial Management Authority, Ministry of Finance and NIER.



## Selected graphs

**Diagram A1 GDP – world, OECD and emerging markets**

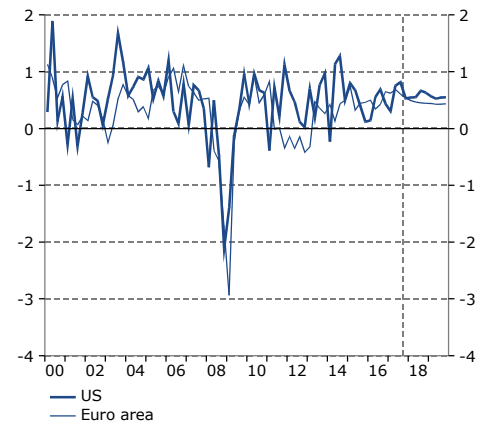
Percentage change



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

**Diagram A2 GDP in the US and the euro area**

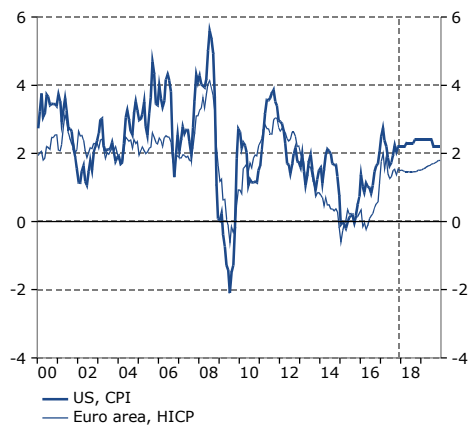
Percentage change, seasonally-adjusted quarterly values



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

**Diagram A3 Inflation in the US and the euro area**

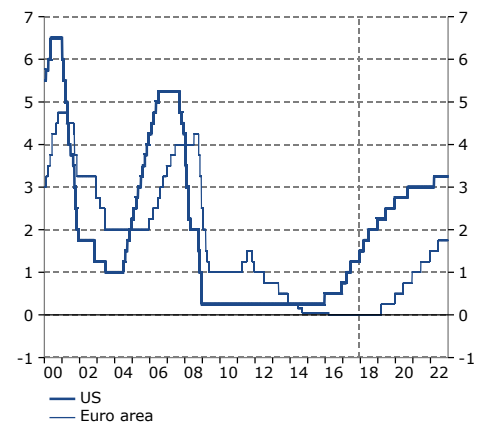
Annual percentage change, monthly values



Sources: Bureau of Labor Statistics, Eurostat and NIER.

**Diagram A4 Central bank policy rates**

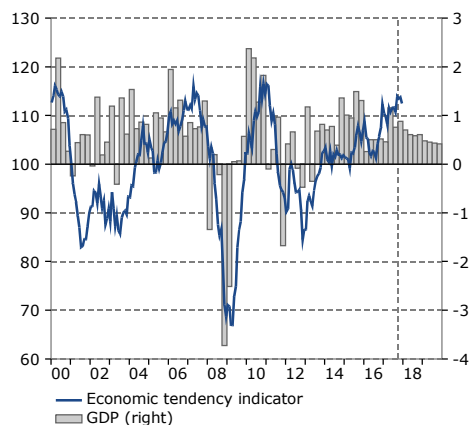
Per cent, daily values



Sources: Federal Reserve, ECB, Macrobond and NIER.

**Diagram A5 Economic tendency indicator and GDP**

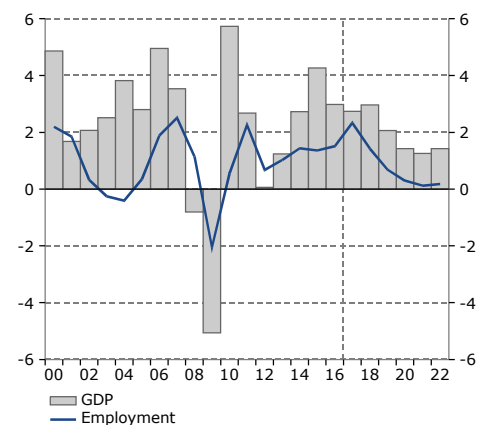
Index mean=100, monthly values, and percentage change, seasonally-adjusted quarterly values, respectively



Sources: Statistics Sweden and NIER.

**Diagram A6 GDP and employment**

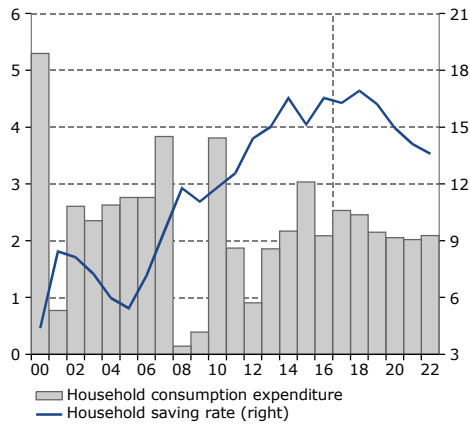
Percentage change, calendar-adjusted values



Sources: Statistics Sweden and NIER.

**Diagram A7 Household consumption and saving rate**

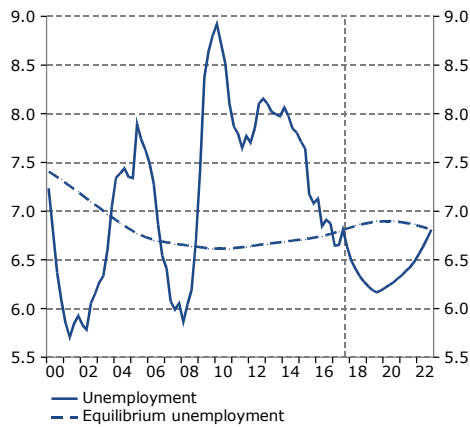
Percentage change, calendar-adjusted values, and percentage of disposable income, respectively



Sources: Statistics Sweden and NIER.

**Diagram A9 Unemployment and equilibrium unemployment**

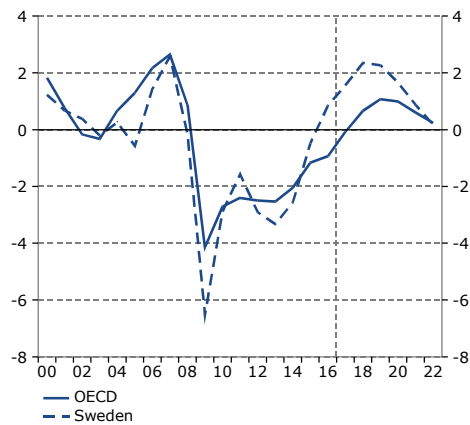
Per cent of labour force, seasonally-adjusted quarterly values



Sources: Statistics Sweden and NIER.

**Diagram A11 Output gap in the OECD and Sweden**

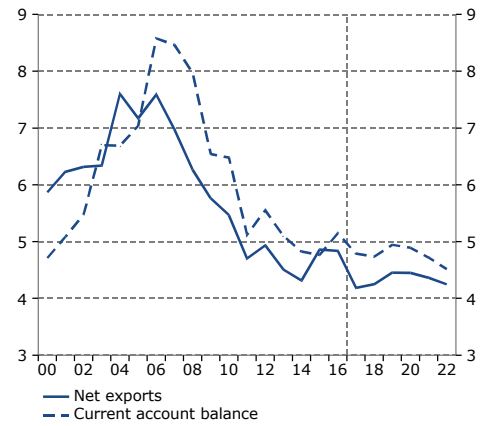
Per cent of potential GDP



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**

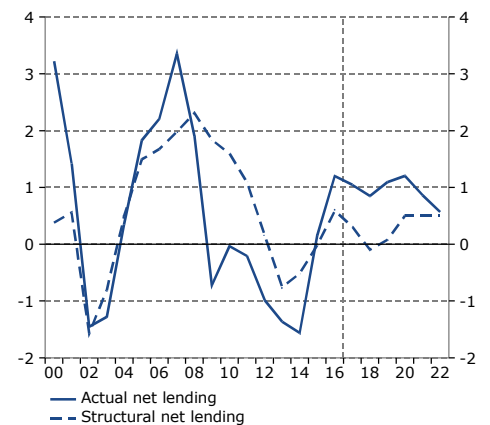
Annual percentage change, quarterly values



Sources: Statistics Sweden and NIER.

**Diagram A12 Actual and structural net lending**

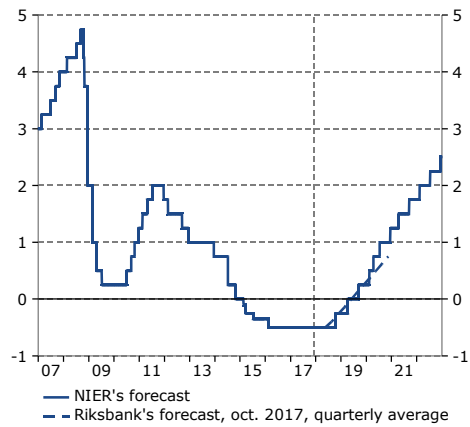
Per cent of GDP and per cent of potential GDP, respectively



Sources: Statistics Sweden and NIER.

**Diagram A13 Repo rate**

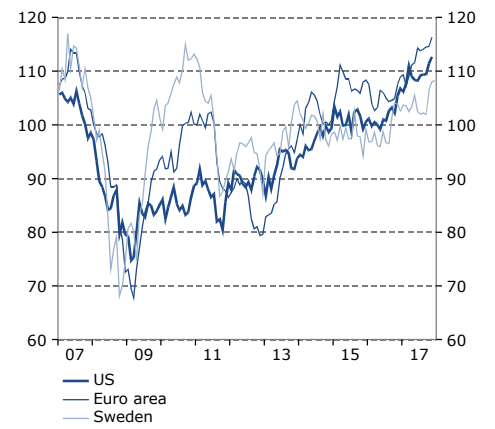
Per cent, daily and quarterly values



Sources: Sveriges Riksbank, Macrobond and NIER.

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

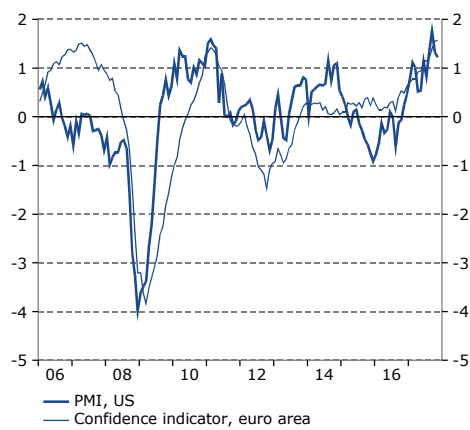
Index mean=100, monthly values



Sources: Conference Board, Eurostat, Macrobond and NIER.

**Diagram A15 Confidence indicators for manufacturing**

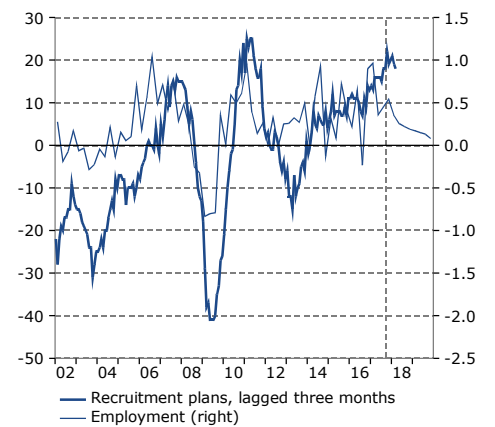
Standardised deviation from mean, seasonally-adjusted monthly values



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

**Diagram A16 Recruitment plans in the business sector and employment**

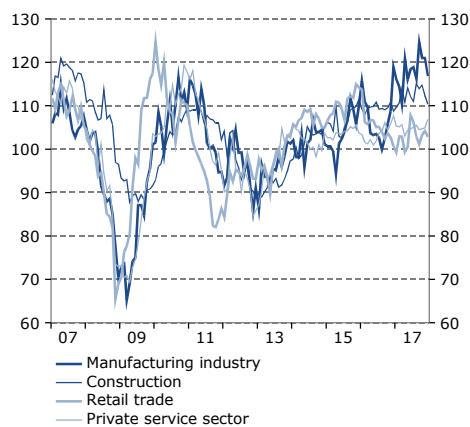
Net balance, seasonally-adjusted monthly values, and percentage change, seasonally-adjusted quarterly values, respectively



Sources: Statistics Sweden and NIER.

**Diagram A17 Confidence indicators for the business sector**

Index, mean=100, seasonally-adjusted monthly values



Source: NIER.