

The Swedish Economy  
October 2019

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## Summary

**The Swedish economy is in a clear slowdown phase, and the output gap will close next year after gradually narrowing this year. International trade disputes and uncertainty around Brexit are weighing on the global economy, which is affecting Swedish exporters. The investment cycle in Sweden has also peaked. Employment has decreased this year, and unemployment increased rapidly over the summer. Mildly expansionary fiscal policy will help prop up demand growth next year to some extent, but unemployment will continue to rise slightly and inflation will remain well below 2 per cent. The Riksbank is not therefore expected to raise the repo rate either this year or next.**

GDP growth in Sweden has barely increased at all since being greatly boosted by temporary factors in the fourth quarter last year (see Diagram 1). There was a broad-based decline in business investment in the second quarter, and exports stagnated. GDP nevertheless increased by 0.1 per cent thanks to household consumption rising by slightly more than 1 per cent.

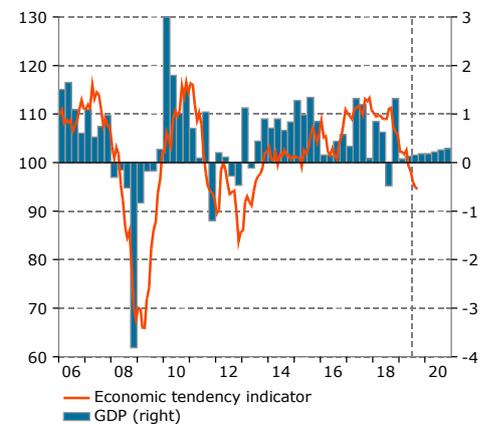
There are clear indications that the economic slowdown is continuing in the second half of the year. Confidence in both manufacturing and services has dropped back recently. Both the overall business indicator and the consumer indicator are now lower than normal (see Diagram 2). Consumers' view of the economy and their expectations for the future are particularly gloomy. Consumers have become deeply pessimistic about the labour market, although they do not see a greater risk of becoming unemployed themselves. They have some cause for this concern. Employment fell slightly in the first and second quarters (see Diagram 3), and the decline accelerated in July and August. Employment plans in the business sector as a whole have also deteriorated gradually over the year and are now around a normal level. All in all, we assume that employment fell by 0.8 per cent in the third quarter, pushing unemployment up to 7.1 per cent. Housing investment is also continuing to fall fast, and investment as a whole is not expected to have made any contribution at all to demand growth in the third quarter. A rebound in export growth means that GDP growth is nevertheless assumed to have improved marginally (see Diagram 1).

### GLOBAL ECONOMY CLOUDED BY UNCERTAINTY

The decline in Swedish confidence indicators can be explained partly by the uncertainty surrounding the global economic outlook. The trade dispute between the US and China has contributed to a downturn in world trade this year, and it is unclear where the dispute is headed (see Diagram 4). US threats of new tariffs targeting European and Japanese carmakers and the lack of clarity around Brexit have further fuelled uncertainty. Confusion about the ground rules for world trade is weighing on

**Diagram 1 Economic tendency indicator and GDP**

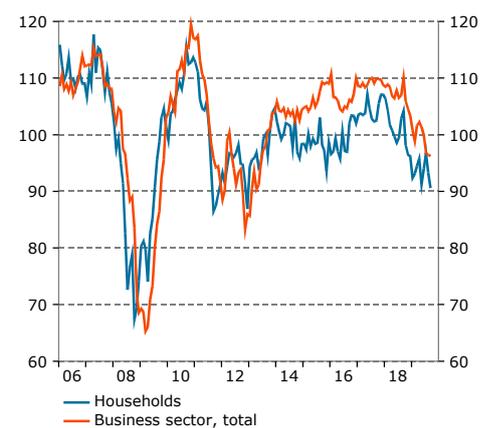
Index mean=100, monthly values and percentage change, seasonally adjusted quarterly values



Sources: Statistics Sweden and NIER.

**Diagram 2 Households and the business sector confidence indicator**

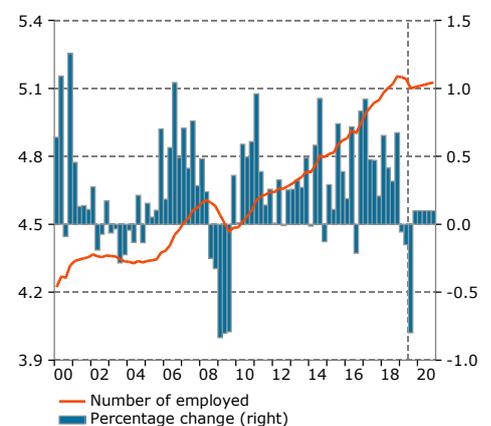
Index mean=100, seasonally adjusted monthly values



Source: NIER.

**Diagram 3 Employment**

Millions and percentage change, seasonally adjusted quarterly values



Sources: Statistics Sweden and NIER.

business investment and thus on global industrial production, which has fallen recently (see Diagram 4). This will cause global growth to slow to around 3 per cent this year and next (see Table 1). This forecast is based on the assumption that the trade war does not escalate further, and tariffs are not raised any further than already announced, and that the UK leaves the EU in an orderly fashion either this year or next.

Weaker world trade and industrial production have impacted on various confidence indicators. Manufacturing sentiment has deteriorated since early 2018 and is now well below the historical average in the US, the euro area and the UK (see Diagram 5). Consumers remain optimistic in the US and the euro area, however. In the UK, uncertainty about Brexit and the future have caused consumers to be less optimistic than normal even though the labour market is still strong.

GDP growth slowed in most of the major advanced economies in the second quarter. In the US, GDP increased by 0.5 per cent, driven primarily by higher household consumption. Consumers' optimism is due partly to further low unemployment and accelerating wage growth. Despite the latter, inflation has been subdued since the spring, and the Federal Reserve has therefore lowered its policy rate twice in recent months (see Diagram 6). This would suggest that household consumption will continue to grow at a healthy rate and remain the most important driver in the economy. GDP growth will nevertheless slow both this year and next, when it will be slightly below 2 per cent.

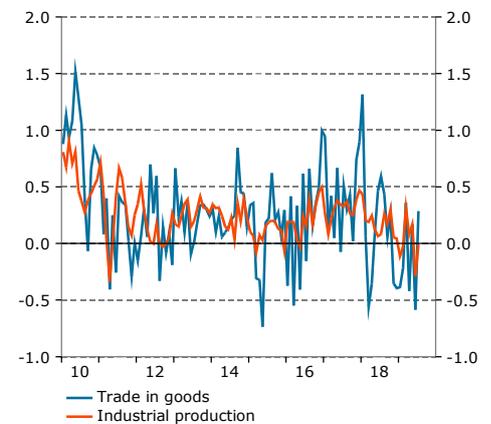
In the euro area, GDP growth fell to a modest 0.2 per cent in the second quarter, with output stagnating in Italy and decreasing slightly in Germany. The latter is a major exporting nation, and the uncertainty about world trade is weighing on the German economy, not least after US threats of new tariffs on motor vehicles produced in the EU. Although unemployment in the euro area is now at the same level as before the financial crisis, wage growth has not taken off, and core inflation is hovering around 1 per cent. Together with the weaker economic outlook, this has prompted the ECB to cut its deposit rate and announce that interest rates will be kept low until inflation nears the target level on a sustainable basis. Despite this stimulus, GDP growth in the euro area will slow this year and next to around 1 per cent, which is somewhat below the potential growth rate.

### SLOWER GROWTH IN DEMAND FOR SWEDISH EXPORTS

The global economic slowdown and weak growth in world trade have led to a rapid downturn in new orders for Swedish manufacturers (see Diagram 7). Firms still have relatively healthy order books, but the decline in new orders will lead to a deterioration further ahead. Export market growth, defined as growth in imports in the countries to which Sweden exports, will fall this year to just below 3 per cent, which is very low by historical

**Diagram 4 Global goods trade and industrial production**

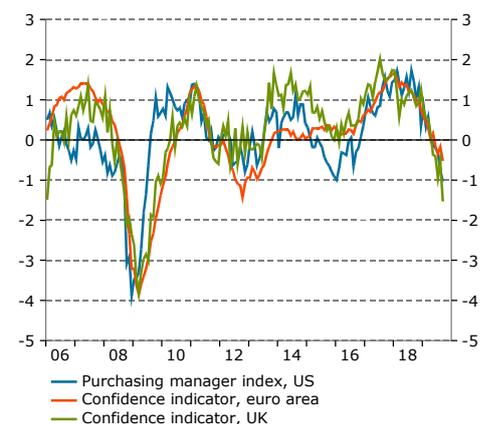
Percentage change, 3-month moving average, seasonally adjusted monthly values



Sources: CPB Netherlands Bureau for Economic Policy Analysis and Macrobond.

**Diagram 5 Confidence indicators for manufacturing**

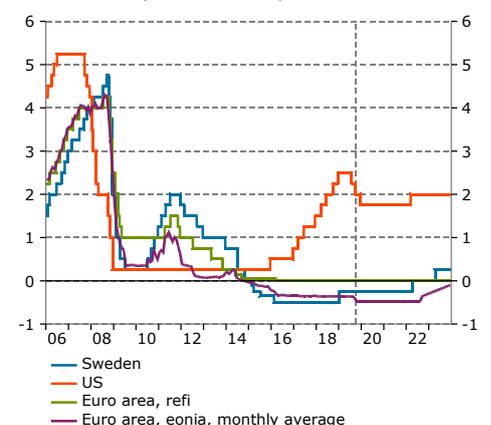
Standardized deviations from mean, seasonally adjusted monthly values



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

**Diagram 6 Policy rates**

Per cent, daily- and monthly values



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

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

standards, and will remain weak next year. While Swedish exporters are benefiting from the weak krona, the weak global investment climate is hitting them hard given how focused they are on intermediate and capital goods. After a temporary surge in the third quarter, export growth is set to slow again. This means that export growth will be much lower than export market growth next year, when exports will make a relatively small contribution to GDP growth by historical standards (see Diagram 8).

**BUSINESS INVESTMENT FALLING**

The previously strong manufacturing climate fuelled investment in the manufacturing sector, which is at a high level despite dropping back in the second quarter. The economic slowdown outside Sweden and dwindling new orders mean that manufacturing investment will decrease slightly this year before falling more noticeably next year. Housing investment has been falling for some time. New mortgage rules and the previous decline in housing prices have caused the number of housing starts to decrease sharply over the past two years, and so housing investment will continue to decline in the coming quarters. There is a major need for new housing, however, and housing prices have recently been edging up. The decline in housing investment is therefore expected to slow markedly next year. Housing investment will then still account for a relatively high share of GDP by historical standards (see Diagram 9).

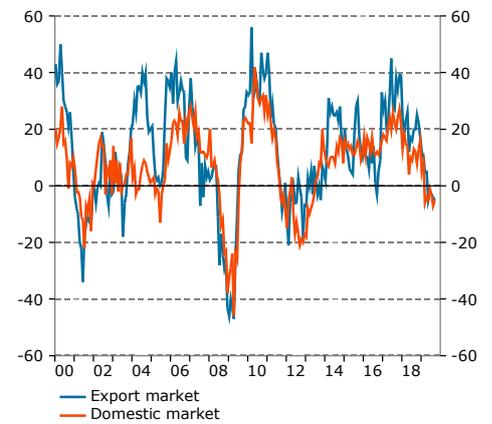
**MILDLY EXPANSIONARY FISCAL POLICY NEXT YEAR**

Government consumption has increased only slowly in recent years due to falling immigration-related costs. The weak growth is continuing this year despite demand for publicly funded welfare services rising relatively quickly. Given the government’s budget bill for 2020, we expect fiscal policy to be slightly expansionary, and structural net lending will decrease slightly (see Diagram 10). Despite new spending on the police, courts and defence and higher grants to local government, overall government consumption will continue to increase relatively slowly next year in the light of demographic developments, due partly to weak local government net lending.

For the surplus target to be met after 2020, some fiscal tightening will be required. Fiscal space is estimated at SEK 105 billion in the period from 2021 to 2023, which largely corresponds to the increase in spending needed to maintain personnel density in the provision of publicly funded services at 2020 levels plus an increase in standards in line with the historical pattern.

**Diagram 7 Orders, manufacturing industry**

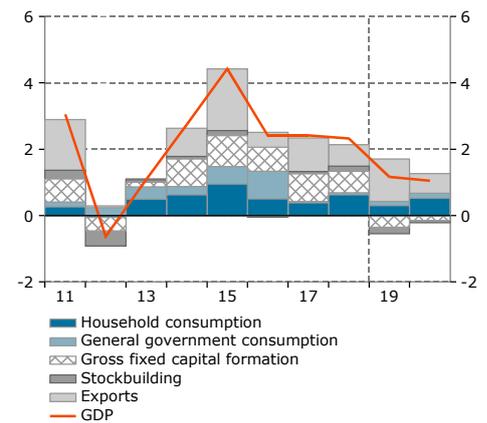
Net balances, seasonally adjusted monthly values



Source: NIER.

**Diagram 8 Import-adjusted contribution to GDP growth**

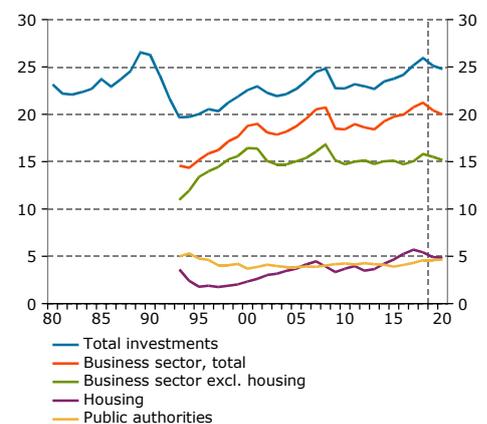
Percentage change and percentage point respectively



Sources: Statistics Sweden and NIER.

**Diagram 9 Gross fixed capital formation**

Per cent of GDP, current prices



Sources: Statistics Sweden and NIER.

**Table 1 Selected Indicators**

Percentage change, unless otherwise indicated

	2018	2019	2020	2021	2022	2023
GDP, Market Prices	2.3	1.2	1.1	1.7	1.8	1.5
GDP per Capita	1.1	0.2	0.2	0.9	1.0	0.8
GDP, Calendar-Adjusted	2.4	1.2	0.8	1.6	1.8	1.7
GDP, World	3.6	3.1	3.0	3.1	3.2	3.3
Current Account Balance <sup>1</sup>	2.4	4.6	4.9	5.1	5.0	4.8
Hours Worked <sup>2</sup>	2.4	0.9	0.1	0.4	0.7	0.7
Employment	1.8	0.2	-0.1	0.6	0.8	0.8
Unemployment Rate <sup>3</sup>	6.3	6.7	7.1	7.2	7.0	6.8
Labour Market Gap <sup>4</sup>	1.0	0.8	0.1	-0.2	-0.1	0.0
Output Gap <sup>5</sup>	1.6	0.9	0.0	-0.1	0.0	0.0
Hourly Earnings <sup>6</sup>	2.5	2.6	2.6	2.7	2.8	2.9
Hourly Labour Costs <sup>2,7</sup>	2.9	2.7	2.4	2.7	2.8	2.9
Productivity <sup>2</sup>	0.1	0.5	0.7	1.2	1.1	1.0
CPI	2.0	1.8	1.5	1.6	1.9	2.3
CPIF	2.1	1.7	1.5	1.6	1.8	2.0
Repo Rate <sup>8,9</sup>	-0.50	-0.25	-0.25	-0.25	0.00	0.25
10-year Government Bond Yield <sup>8</sup>	0.7	0.0	0.1	0.5	1.0	1.4
Effective Krona Exchange Rate Index (KIX) <sup>10</sup>	117.6	122.5	124.2	122.7	120.6	117.0
Government Net Lending <sup>1</sup>	0.8	0.4	-0.1	0.0	0.2	0.3
Structural Net Lending <sup>11</sup>	-0.2	0.2	0.0	0.1	0.3	0.3
Maastricht Debt <sup>1</sup>	38.8	35.3	35.1	34.5	33.8	33.3

<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> Refers to the hours of employees. <sup>8</sup> Per cent. <sup>9</sup> At year-end. <sup>10</sup> Index 18 November 1992=100. <sup>11</sup> Per cent of potential GDP.

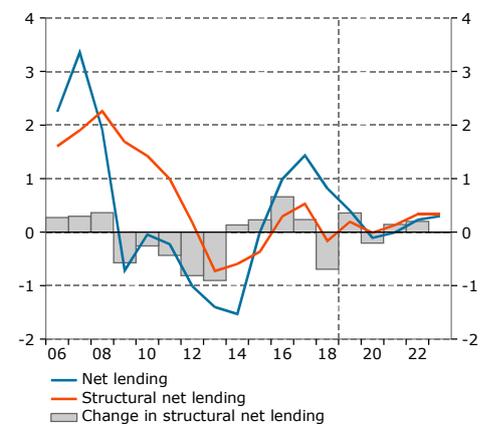
Sources: IMF, Statistics Sweden, National Mediation Office, The Riksbank, Macrobond and NIER.

## GLOOMY CONSUMERS TIGHTEN PURSE STRINGS

Statistics Sweden's consumption indicator and retail sales statistics suggest that consumer spending grew relatively strongly in the third quarter, but the recent rapid decline in the consumer confidence indicator paints a less positive picture (see Diagram 2). On balance, we expect household consumption to have grown at around the normal rate in the third quarter. Next year, some households will benefit from tax cuts, but further weak employment growth means that household real disposable income will still rise more slowly next year than this (see Diagram 11). Consumers' pessimistic expectations mean that they are expected to increase their saving slightly further for precautionary reasons.

**Diagram 10 Net lending and structural net lending in general government**

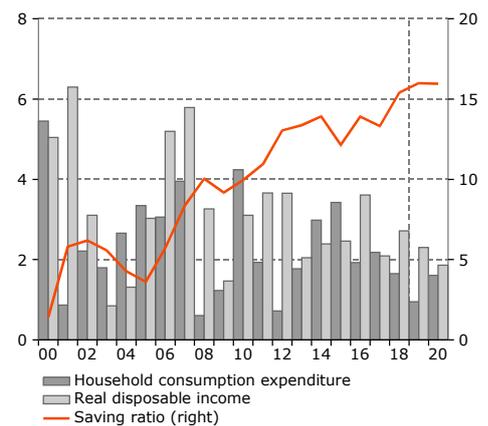
Per cent of GDP and per cent of potential GDP



Sources: Statistics Sweden and NIER.

**Diagram 11 Household consumption, real disposable income and saving ratio**

Percentage change and per cent of disposable income plus collective savings

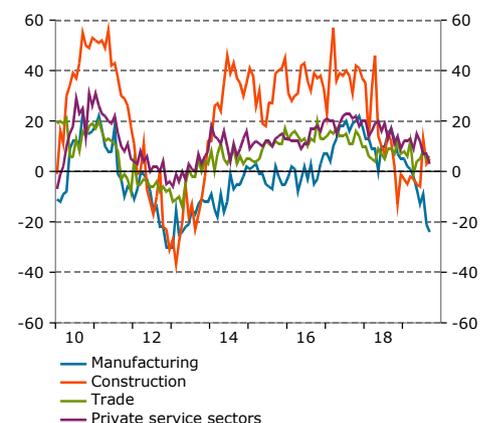


Note. The savings ratio is defined as households' total savings incl. savings in premium and occupational pensions as a share of household disposable income plus savings in premium and occupational pensions.

Sources: Statistics Sweden and NIER.

**Diagram 12 Recruitment plans**

Net balances, seasonally adjusted monthly values



Source: NIER.

**RAPID DOWNTURN IN THE LABOUR MARKET**

The rapid deterioration in the labour market over the summer means that employment is assumed to have fallen by 0.8 per cent in the third quarter. Employment plans in manufacturing have fallen back sharply recently as the manufacturing climate has worsened (see Diagram 12). In other parts of the business sector, however, employment plans are still slightly positive. There is also a continued need for recruitment in the public sector. Employment in the economy as a whole is therefore expected to increase again in the fourth quarter, albeit only very slightly. This weak employment growth is then expected to persist during the course of 2020, with employment stagnating over the year taken as a whole (see Diagram 13).

The economic slowdown has caused growth in the labour force to slow this year, and the participation rate has fallen slightly. Going forward, the labour force is expected to expand slowly, which is consistent with demographic developments, and the participation rate will stabilise. All in all, this means that unemployment, which is assumed to have risen to 7.1 per cent in the third quarter this year, will more or less level off, at a level just above our estimate of the equilibrium rate (see Diagram 14).

**OUTPUT GAP TO CLOSE NEXT YEAR**

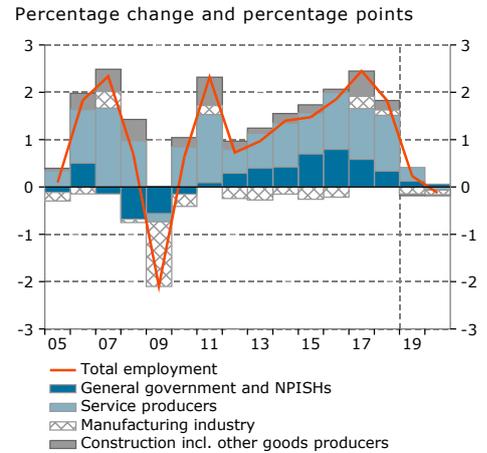
Falling employment is a clear indication that the output gap is narrowing. Other indications are that the Economic Tendency Survey is finding that capacity utilisation in manufacturing has dropped back recently, and that more and more firms across the business sector are reporting a lack of demand as the greatest constraint on production. The subdued GDP growth over the rest of 2019 and in 2020 means that resource utilisation will continue to decline gradually during the period. We predict that the output gap – an indicator of resource utilisation in the economy as a whole – will close in 2020 (see Table 1).

**WAGE GROWTH IN THE BUSINESS SECTOR STILL MUTED**

Recent years’ relatively low unemployment has not had any great effect on wage growth in the business sector. Last year, wages grew by 2.5 per cent, which is much lower than in the two previous economic booms since the turn of the millennium (see Diagram 15). This year, they will rise at around the same rate. The beginning of next year will bring new collective agreements in a situation when profitability in manufacturing – the industry that sets the tone for the rest of the business sector – is still expected to be relatively good, albeit in decline. However, wage growth in Swedish manufacturing is being held back by the downturn in the labour market and lower wage growth in German manufacturing. All in all, this is expected to mean that wages in the business sector increase at around the same rate again next year.

One reason why private wage growth has been muted is that productivity growth has been surprisingly weak. Despite this

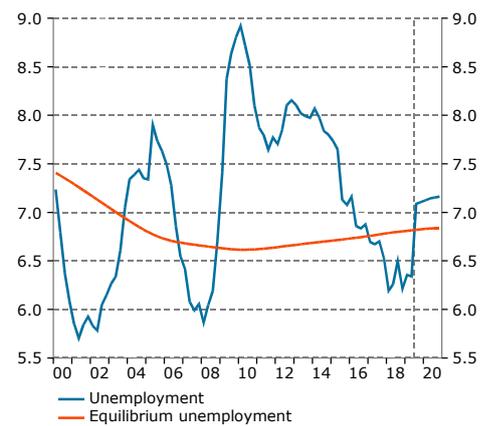
**Diagram 13 Contribution to employment growth**



Note. NPISH refers to institutions serving households.  
 Sources: Statistics Sweden and NIER.

**Diagram 14 Unemployment**

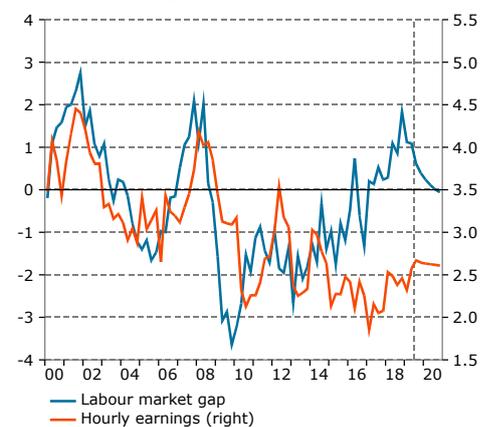
Percentage of actual labour force and potential labour force respectively, seasonally adjusted quarterly values



Sources: Statistics Sweden and NIER.

**Diagram 15 Labour market gap and hourly wage in business sector**

Percentage of potentially worked hours and annual percentage change, quarterly values



Sources: National Mediation Office and NIER.

weak productivity growth, the profit share in the business sector as a whole is at normal levels, and firms' own assessment of their profitability in the Economic Tendency Survey is slightly more positive than normal (see Diagram 16). This favourable take on profitability is due largely to manufacturers, which are benefiting from the weak krona. Service and retail firms' view of their profitability was at more normal levels in the second quarter. Next year, business sector productivity will increase slightly more quickly, and unit labour costs, which reflect cost pressures at firms, will rise more slowly.

**INFLATION BELOW THE RIKSBANK TARGET**

CPIF inflation – the increase in the consumer price index with a fixed interest rate – hovered around the Riksbank's 2.0 per cent target in 2018 and early 2019 (see Diagram 17), due mainly to soaring energy prices and a weaker krona pushing up import prices. It has fallen markedly in recent months, however, partly because energy prices are no longer making the same contribution. The inflationary effects of the previous depreciation of the krona are expected to fade gradually through to the end of 2020. Together with the relatively subdued increase in unit labour costs next year and a more or less normal assessment of profitability in retail and services, this means that inflation is expected to remain below the Riksbank's target for the rest of 2019 and in 2020.

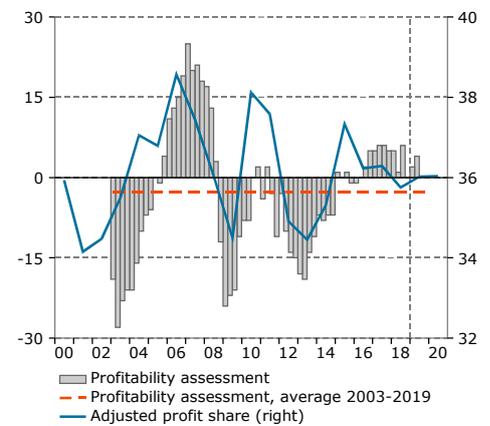
The Riksbank has signalled an intention to raise the repo rate in late 2019 or early 2020. In the light of the ongoing economic slowdown and the weak inflationary outlook, the NIER does not expect this to materialise. The repo rate is instead assumed to hold at -0.25 per cent until early 2022 (see Diagram 18). This view is closely in line with market expectations as reflected in RIBA futures.

**RISK OF LOWER GDP GROWTH DOMINATES**

There is a considerable risk of a more rapid downturn in the global economy, for example if the trade war escalates or there is a no-deal Brexit. Should this happen, the output gap in Sweden could very well turn negative. In a separate chapter in this report, we present a scenario illustrating how economic policy might respond. This scenario shows that a temporary increase in government consumption could be an effective way of stabilising the economy when the Riksbank has limited room to manoeuvre due to the repo rate reaching its lower bound.

**Diagram 16 Business sector profitability**

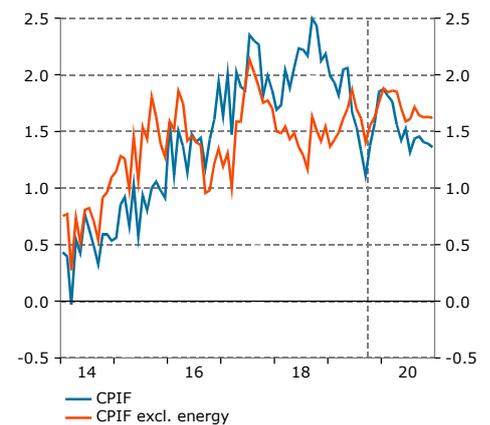
Per cent, annual values and balances, seasonally adjusted quarterly values



Sources: Statistics Sweden and NIER.

**Diagram 17 Consumer prices**

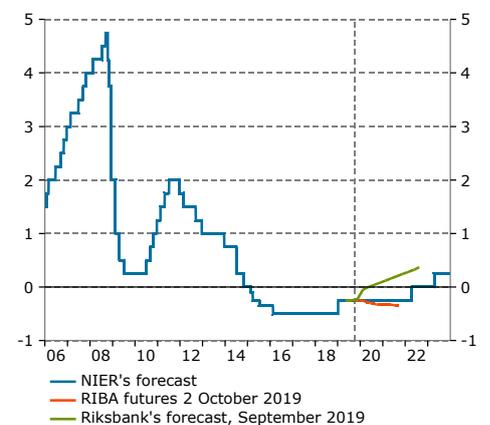
Annual percentage change, monthly values



Sources: Statistics Sweden and NIER.

**Diagram 18 Repo rate**

Per cent, daily- and quarterly values



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

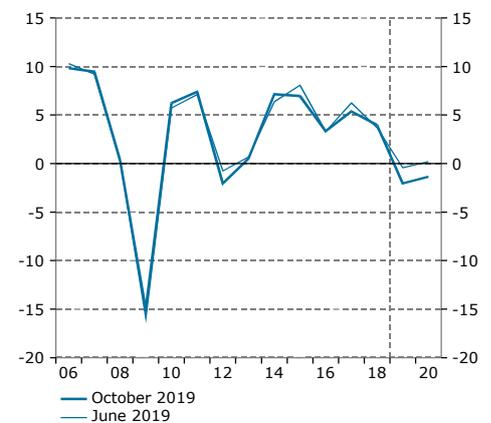
Sources: Nasdaq OMX, The Riksbank, Macrobond and NIER.

## Forecast revisions 2019-2020

New information since our June forecast has led to some revisions to our forecasts (see Table 2). Some of the more significant changes are outlined below.

- Global GDP growth has been revised down for both 2019 and 2020, due to weak data and a weaker outlook.
- The forecast for Swedish GDP growth has been reduced by 0.7 percentage points for 2019, mainly as a result of revisions to the national accounts. The forecast for 2020 has also been lowered, owing partly to the weaker economic outlook.
- Growth in gross fixed capital formation has been adjusted down by 1.5 percentage points for 2019 (see Diagram 19), to a great extent due to much weaker business investment in the second quarter than anticipated in June. The weaker manufacturing outlook has prompted a relatively large downward revision of manufacturing investment for 2020, and investment growth in the economy as a whole has been revised down by 1 percentage point for 2020.
- Employment declined slightly in the first two quarters of 2019 and has fallen sharply in recent months. This has prompted a sharp cut in the forecast for employment growth in the third quarter, which has had a marked impact on the annual figures for both 2019 and 2020.
- The corollary of recent months' weak employment growth is a strong increase in unemployment. This has led to a substantial increase in the jobless forecast for 2019 as a whole and, in particular, 2020 (see Diagram 20).
- CPIF inflation has been slightly weaker in recent months than anticipated in our June forecast. The economic outlook has also worsened. The inflation forecast has therefore been lowered for both 2019 and 2020 (see Diagram 21).
- The weaker inflationary outlook means that the Riksbank is now expected to leave the repo rate at -0.25 per cent for the rest of 2019 and in 2020, whereas our June forecast assumed that it would be raised in 2020.

**Diagram 19 Gross fixed capital formation in the business sector**  
Percentage change



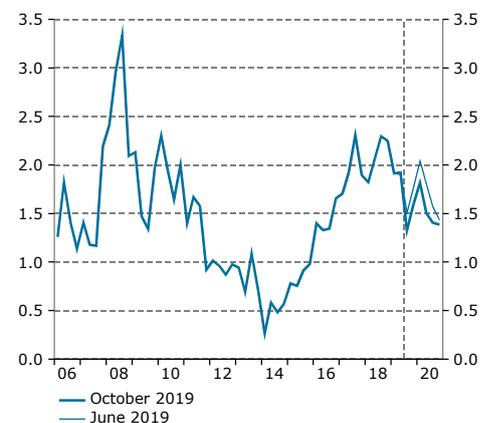
Sources: Statistics Sweden and NIER.

**Diagram 20 Unemployment**  
Per cent of labour force, seasonally adjusted quarterly values



Sources: Statistics Sweden and NIER.

**Diagram 21 CPIF**  
Annual percentage change, quarterly values



Sources: Statistics Sweden and NIER.

**Table 2 Current Forecast and Revisions Compared to the June 2019 Forecast**

Percentage change and percentage points respectively, unless otherwise indicated

	2019			Oct	Jun	2020 Diff
	Oct	Jun	Diff			
<b>Global Economy</b>						
GDP, World	3.1	3.4	-0.3	3.0	3.3	-0.4
GDP, KIX-weighted	1.9	2.0	-0.1	1.8	2.0	-0.3
GDP, Euro Area	1.1	1.2	-0.1	1.0	1.4	-0.3
GDP, US	2.3	2.5	-0.2	1.8	1.9	-0.1
GDP, China	6.2	6.1	0.1	6.0	6.0	0.0
Federal Funds Target Rate <sup>1,2</sup>	1.8	2.5	-0.8	1.8	2.5	-0.8
ECB Refi Rate <sup>1,2</sup>	0.0	0.0	0.0	0.0	0.3	-0.3
Oil Price <sup>3</sup>	63.0	63.3	-0.3	57.4	61.0	-3.7
CPI, KIX-weighted	2.0	2.0	0.0	2.0	2.0	0.0
<b>Domestic Economy</b>						
GDP, Calendar-Adjusted	1.2	1.9	-0.7	0.8	1.2	-0.4
GDP	1.2	1.8	-0.7	1.1	1.4	-0.4
Household Consumption	0.9	1.0	0.0	1.7	1.9	-0.2
Government Consumption	0.6	0.6	0.0	0.7	0.9	-0.1
Gross Fixed Capital Formation	-1.4	0.1	-1.5	-0.8	0.3	-1.0
Stockbuilding <sup>4</sup>	-0.3	-0.3	0.0	-0.2	-0.2	0.0
Exports	4.3	4.2	0.1	2.4	2.9	-0.5
Imports	1.7	1.0	0.7	1.4	2.0	-0.5
<b>Labour Market, Inflation, Interest Rates, etc.</b>						
Hours Worked <sup>5</sup>	0.9	1.4	-0.5	0.1	0.3	-0.3
Employment	0.2	1.1	-0.9	-0.1	0.5	-0.7
Unemployment <sup>6</sup>	6.7	6.3	0.4	7.1	6.4	0.7
Labour Market Gap <sup>7</sup>	0.8	1.1	-0.3	0.1	0.7	-0.7
Output Gap <sup>8</sup>	0.9	1.3	-0.5	0.0	0.7	-0.7
Productivity <sup>5</sup>	0.5	0.7	-0.2	0.7	0.9	-0.1
Hourly Earnings <sup>9</sup>	2.6	2.6	0.0	2.6	2.7	-0.1
CPI	1.8	1.9	-0.1	1.5	1.9	-0.5
CPIF	1.7	1.8	-0.1	1.5	1.7	-0.2
Repo Rate <sup>1,2</sup>	-0.25	-0.25	0.00	-0.25	0.00	-0.25
10-Year Government Bond Yield <sup>1</sup>	0.0	0.2	-0.2	0.1	0.5	-0.4
Effective Krona Exchange Rate Index (KIX) <sup>10</sup>	122.5	122.2	0.3	124.2	122.2	2.0
Current Account Balance <sup>11</sup>	4.6	4.7	-0.1	4.9	4.7	0.2
Government Net Lending <sup>11</sup>	0.4	0.2	0.2	-0.1	0.0	-0.1

<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 June 2019 forecast. A positive value denotes an upward revision.

Source: NIER.



## Special Analysis

### Alternative scenarios

There are a number of risks which, if they materialise, could be expected to lead to a weaker economic performance in Europe and elsewhere than in the base scenario presented in this report. One such risk is the UK leaving the EU without a deal, which could lead to reduced flows of goods, services and capital between the UK and the rest of the EU. In the NIER's general equilibrium model SELMA, events of this kind can be represented by lower demand for goods and services abroad and so lower demand for Swedish exports than in the base scenario.

We can use SELMA to analyse how alternative assumptions for the Swedish economy might impact on economic developments. In the following, we describe how lower aggregate demand in the foreign economy affects the domestic economy in this model.<sup>1</sup> The size of this effect does, however, depend on how monetary policy and fiscal policy respond to the change in demand abroad. This is analysed in two scenarios below.

In both scenarios, it is assumed that there is a limit to how low policy rates in Sweden and abroad can go.<sup>2</sup> Both the repo rate and the foreign policy rate reach their respective lower bounds in both scenarios.<sup>3</sup> This limits the scope for using monetary policy to stabilise the economy. Given this limited scope, two scenarios with different fiscal policy approaches are presented in order to show how fiscal policy might be used as a complement to monetary policy to stimulate the economy.<sup>4</sup>

Lower foreign demand leads to lower domestic growth in exports, consumption and investment, and so lower growth in GDP. In the first scenario, no discretionary fiscal policy is conducted. In other words, no active fiscal decisions are taken beyond those included in the base scenario and those needed to ensure compliance with the surplus target, operationalised as a structural net lending level of one-third of a percent of potential GDP. It is assumed here that it is transfers that are adjusted so

<sup>1</sup> The foreign economy is represented in the diagrams by the KIX6 countries, i.e. all of the countries in the euro area plus the US, Norway, the UK, Denmark and Japan.

<sup>2</sup> The effect of an economic downturn in the foreign economy on Sweden when monetary policy is not constrained by a lower bound was analysed in the Swedish version of *The Swedish Economy*, March 2019.

<sup>3</sup> The lower bound in Sweden is assumed to be -0.5 per cent. The basis for this assumption is that, when the repo rate was at that level (between 2016 and 2018), the Riksbank chose further quantitative easing over a further reduction in the repo rate. The value of the lower bound for the foreign economy is assumed to be -0.4 per cent, which is a trade-weighted average of the NIER's estimate of the lower bounds for the KIX6 countries.

<sup>4</sup> In both scenarios, it is assumed that there is no co-ordination between the Riksbank and the government.

#### What is an alternative scenario?

This chapter presents possible paths for the economy other than those described in the base scenario. It sets out different economic assumptions to the base scenario, and the effects these alternative assumptions might have on the Swedish economy.

The alternative scenarios are analysed using the NIER's general equilibrium model SELMA. The analysis presented is based on the results from the model. It is therefore entirely dependent on the assumptions made in the model.

#### About SELMA

SELMA is a general equilibrium model based on established economic theory. This means that SELMA captures the relationships between macroeconomic variables and the interaction between them.

The model has two regions: Sweden and abroad. The foreign economy can affect Sweden, but Sweden is assumed to have no effect on the foreign economy because the Swedish economy is small. The Swedish economy in turn consists of two types of household, five types of firms, an independent central bank that conducts monetary policy, and a government sector that conducts fiscal policy.

One type of household has access to financial markets and can therefore borrow and save, while the other does not have access to financial markets, which means that these households consume all of their disposable income, consisting of wages and transfer payments.

Firms produce export goods, capital goods and consumption goods. These firms use intermediate goods which are either produced by other domestic firms or imported. Pricing by producers of intermediates and by exporters is assumed to be sticky.

The Swedish central bank – the Riksbank – conducts monetary policy with a view to stabilising inflation around the target level. It also attaches some importance to the output gap. All else equal, the repo rate will be set higher if the output gap is positive, and lower if it is negative.

Fiscal policy can be conducted via a number of fiscal instruments, such as increasing or decreasing transfers to households, raising or lowering tax rates, and increasing or decreasing government consumption.

The foreign economy is modelled using the same principles as the Swedish economy, but the structure is simplified. SELMA has been calibrated to reflect how the Swedish economy functions. It is a quarterly model, even though the results in the scenarios are presented as annual growth rates.

For a more detailed description of SELMA, see "SELMA – Technical documentation" at [www.konj.se](http://www.konj.se).

that the surplus target is met.<sup>5</sup> In the second scenario, the government uses discretionary spending to counteract the negative effects of lower foreign demand on the Swedish economy. The government counters the economic downturn by increasing its consumption for two years, with the result that structural net lending falls below one-third of a percent of potential GDP in those same two years. After that, it is assumed that transfers are adjusted in such a way that the surplus target is reached. This fiscal stimulus leads to both higher government consumption and higher household consumption, thus halving the downturn in Swedish GDP growth.

### A GLOBAL ECONOMIC DOWNTURN

The lower aggregate demand in the foreign economy causes firms abroad to reduce their production relative to the base scenario. Foreign GDP in 2020 falls rather than rises as it does in the base scenario (see Diagram 22). The downturn is expected to be temporary, which means that GDP growth is higher than in the base scenario for a few years after 2021 as the economy recovers. Global inflation also slows in 2020. Lower production leads to lower demand for labour, and in turn to lower wage growth. This means that firms' costs fall, and they raise their prices more slowly. Foreign inflation is therefore lower than in the base scenario (see Diagram 23). The lower inflation and GDP growth prompt central banks to lower their policy rates (see Diagram 24). However, the foreign policy rate reaches its lower bound in this scenario. Given foreign inflation and GDP growth, this lower bound is a binding constraint. In other words, foreign central banks would want to lower their policy rates further than they are able to. This means that they are unable to stimulate the economy to the extent that they would wish, exacerbating the economic downturn.

The decrease in aggregate demand means that GDP in the foreign economy falls by 2.1 per cent in 2020. In Sweden, GDP increases by 0.1 per cent in 2020. This can be compared with the growth rates seen during the financial crisis in 2009, when GDP in both the KIX6 countries and Sweden fell by 4.1 per cent.

Part of the reason why foreign GDP and inflation fall further than domestic GDP and inflation is that no account is taken of effects through confidence channels and some financial channels (such as falling share prices) in the scenarios. The scenarios described here include only the effects of the decrease in foreign demand on Swedish exports and the reduction in foreign policy

<sup>5</sup> This fiscal policy is an example and should not be viewed as the NIER's position on what might be the most appropriate fiscal response.

**Diagram 22 World GDP**

Percentage change, constant prices

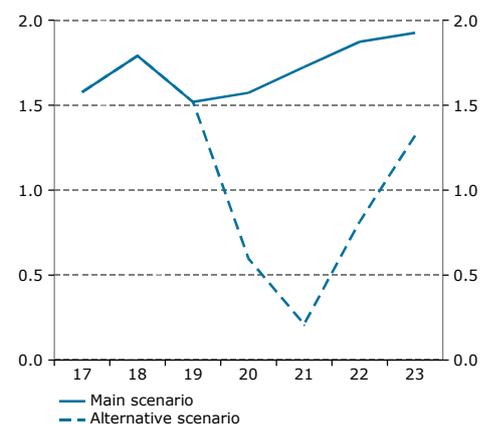


Note. The world is represented by KIX6.

Sources: OECD, Eurostat, Macrobond and NIER.

**Diagram 23 World inflation**

Per cent

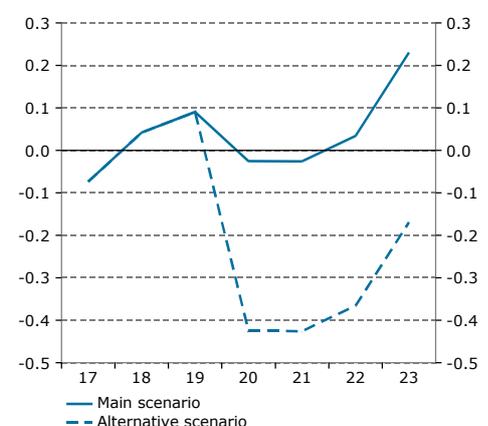


Note. The world is represented by KIX6.

Sources: OECD, Eurostat, Macrobond and NIER.

**Diagram 24 World policy rate**

Per cent



Note. The world is represented by KIX6.

Sources: Bank of England, Bank of Japan, ECB, Federal Reserve, Norges Bank, Macrobond and NIER.

rates. Were confidence channels and these financial channels also to be taken into account, domestic GDP growth and inflation would be much lower.

How the domestic economy is affected by this lower foreign demand depends partly on how monetary policy and fiscal policy respond. The following therefore presents two alternative scenarios with different fiscal policy responses to illustrate the impact on the Swedish economy. In both scenarios, monetary policy in Sweden is also restricted by the policy rate reaching its lower bound. This means that the Riksbank is unable to cut the repo rate as far as it would wish. Since monetary policy is constrained, fiscal policy becomes the most important instrument for counteracting the negative consequences of lower foreign demand for the Swedish economy, such as lower consumption and lower GDP growth. Research also supports the view that fiscal policy is more effective in stabilising the economy when policy rates have reached their lower bound.<sup>6</sup>

In both of the alternative scenarios described below, the automatic stabilisers in the Swedish economy are modelled. This means that rule-based government revenue and expenditure automatically put a damper on the cyclical effects on households and firms through higher transfers and lower tax revenue in an economic downturn, and lower transfers and higher tax revenue in an upswing. Examples of these automatic stabilisers include unemployment benefits and revenue from value-added tax and taxes on labour. It is also assumed that transfers to households are the instrument used to keep structural net lending in line with the surplus target. In the first scenario, with no discretionary fiscal policy, the government takes no discretionary fiscal action beyond adjusting transfer payments to households. In other words, no active fiscal decisions are taken to counter the negative effects of lower demand abroad on the Swedish economy.

This lower foreign demand results in lower exports and so lower demand for domestic intermediates<sup>7</sup> than in the base scenario. Household consumption decreases, and investment is lower than in the base scenario. All of this means that GDP growth in the Swedish economy in 2020 falls to 0.1 per cent as opposed to 0.8 per cent in the base scenario (see Diagram 25), and the output gap is appreciably negative in 2020-2021 (see Diagram 26).

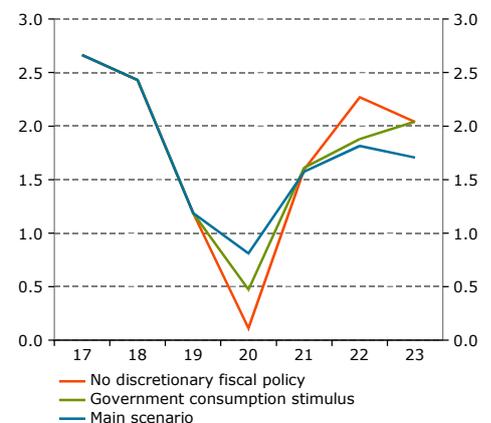
In the second scenario, with increased government consumption, a stimulus package is introduced that results in a temporary

<sup>6</sup> See, for example, Eggertsson, G. "What fiscal policy is effective at zero interest rates?", in Acemoglu, D. and Woodford M. (eds.), *NBER Macroeconomics Annual 2010*, vol. 25, University of Chicago Press, 2011.

<sup>7</sup> Intermediates refers to both goods and services used as inputs to production.

**Diagram 25 Swedish GDP**

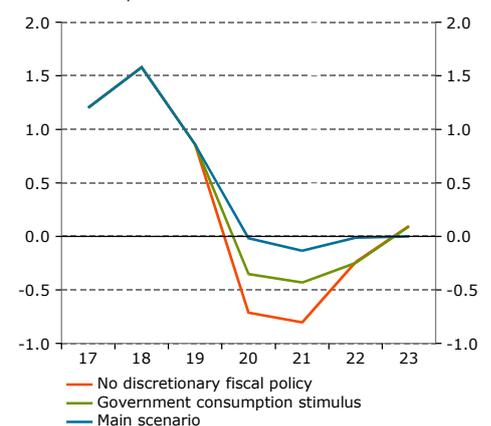
Percentage change, constant prices, calendar-adjusted values



Sources: Statistics Sweden and NIER.

**Diagram 26 Swedish GDP gap**

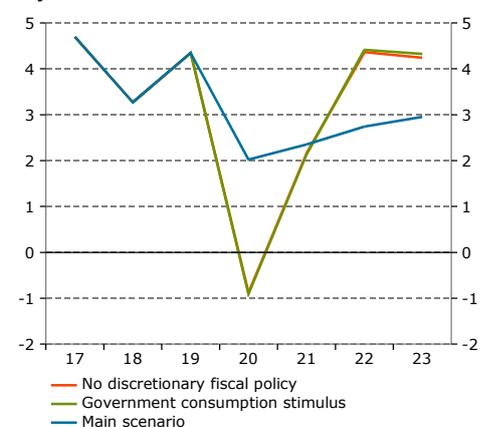
Per cent of potential GDP



Source: NIER.

**Diagram 27 Swedish exports**

Percentage change, constant prices, calendar-adjusted values



Sources: Statistics Sweden and NIER.

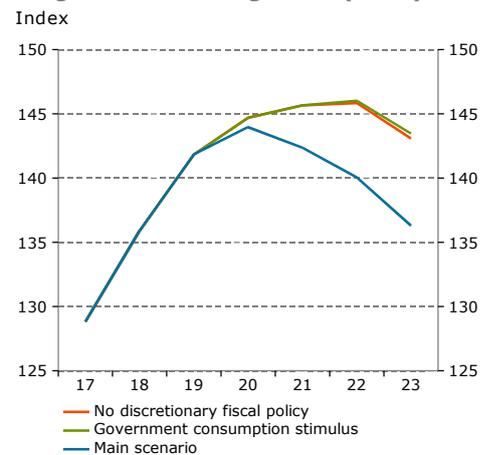
rise in public spending. Government consumption is then 1.2 per cent higher than in the scenario with no discretionary fiscal policy for two years, which corresponds to around SEK 15 billion per year. At the same time, structural net lending is permitted to fall below one-third of a percent of potential GDP during these two years. The stimulus package helps stabilise domestic GDP growth, with the result that the slowdown is only around half of that in the scenario with no discretionary fiscal policy, and the output gap is less negative. This happens partly as a direct consequence of the rise in government consumption, but also through higher household consumption. Since household consumption increases, so does tax revenue from that tax base. Labour income is also higher as a result of more hours worked and higher wages. Government revenue from taxes on labour therefore increases. All in all, primary revenue is higher as a result of the fiscal stimulus than in the scenario with no discretionary fiscal policy, which means that the increase in the Maastricht debt from the increase in government consumption is only marginal.

#### SCENARIO: NO DISCRETIONARY FISCAL POLICY

This scenario is illustrated by the red line in the diagrams. The lower foreign demand compared to the base scenario means that demand for Swedish exports is lower than in the base scenario (see Diagram 27). The drop in exports is softened by the krona depreciating (see Diagram 28). The exchange rate is affected partly by differences in the interest rate path relative to abroad, and partly by changes in Sweden's net foreign asset position. Since the differences in the interest rate path are relatively small as a result of interest rates both in Sweden and abroad reaching their respective lower bounds (and these bounds being around the same level), the main reason for the depreciation is reduced demand for the krona as Sweden exports less. The decreased demand for Swedish exports undermines demand for Swedish intermediates, which means that domestic producers of intermediates need less labour than before (see Diagram 29). Due to the weaker demand for labour, wage growth is also lower (see Diagram 30).

CPIF inflation can be divided into a domestic component and an imported component. Domestic inflation decreases because firms' costs fall with lower wage growth. Imported inflation is also lower, because the economic downturn abroad leads to lower foreign inflation. This is, however, offset to some extent by the weaker krona. Since both domestic and imported inflation are lower, CPIF inflation is lower than in the base scenario (see Diagram 31).

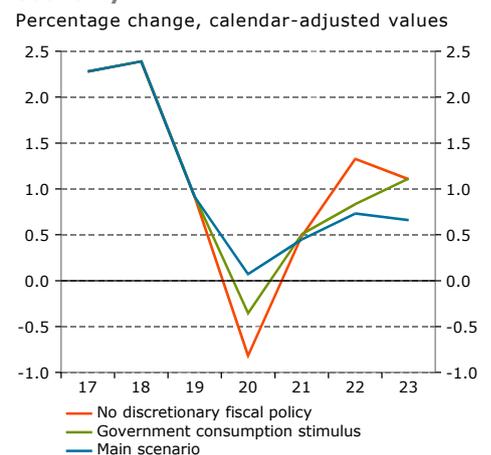
Diagram 28 Exchange rate (KIX6)



Note. A higher index corresponds to a weaker krona.

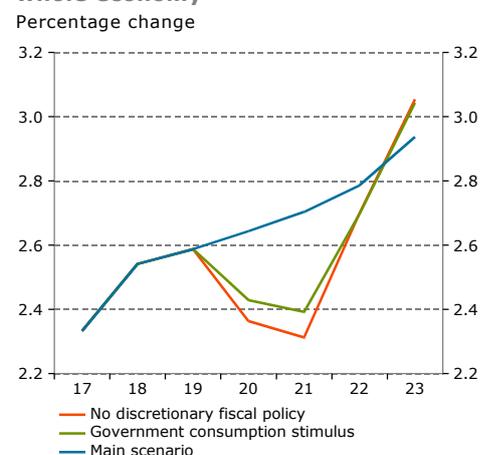
Sources: The Riksbank and NIER.

Diagram 29 Hours worked in the whole economy



Sources: Statistics Sweden and NIER.

Diagram 30 Hourly earnings in the whole economy



Sources: National Mediation Office and NIER.

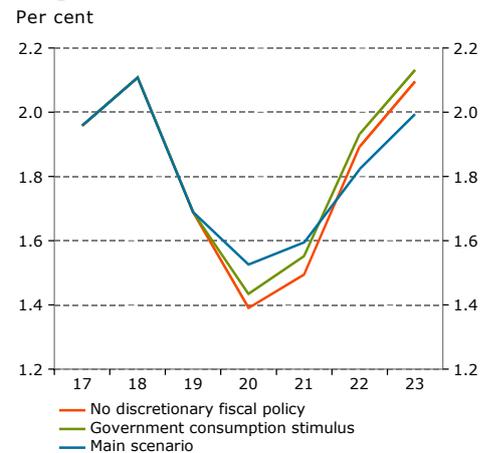
Due to the lower inflation and lower GDP growth, the Riksbank cuts the repo rate, which is then lower than in the base scenario (see Diagram 33). However, the lower bound for the repo rate means that it cannot be reduced as far as the Riksbank would wish. The lower bound binds for around two years. The Riksbank starts to raise the repo rate again in late 2021, and it is higher than in the base scenario from late 2022. The repo rate rises because CPIF inflation is higher than in the base scenario from 2022.

SELMA differentiates between two types of households: those with access to financial markets, who can borrow and save, and those without access to financial markets.<sup>8</sup> A decrease in foreign demand leads to lower wages and reduced demand for labour, and so temporarily lower labour income for households compared to the base scenario. In this model, households with savings will then save less or borrow more to maintain their consumption. Lower interest rates also make it cheaper for households to borrow. However, since the Riksbank is limited in how far it can reduce the repo rate, the reduction is not sufficient to offset the negative effect of the decrease in foreign demand. Another reason why households with savings reduce their consumption is that interest rates are higher than in the base scenario from 2022. Households without savings have less disposable income because their labour income falls, and so they reduce their consumption. Since both households with savings and households without savings reduce their consumption, household consumption is lower than in the base scenario (see Diagram 32). If the Riksbank and central banks abroad were not constrained by their respective lower bounds, policy rates would be cut further, and households with savings would instead increase their consumption relative to the base scenario. Consumption by households without savings would still decrease, but to a lesser extent than in the case with a lower bound. All in all, consumption would be higher than in the base scenario without the lower bounds for policy rates.

Domestic producers of intermediates use labour and capital in their production. Since demand for domestic intermediates decreases, these firms' demand for capital is lower than in the base scenario. Investment growth is therefore lower than in the base scenario (see Diagram 34). The lower bounds for policy rates play a similar role here as with household consumption. Without a lower bound, investment growth would be higher than in the base scenario.

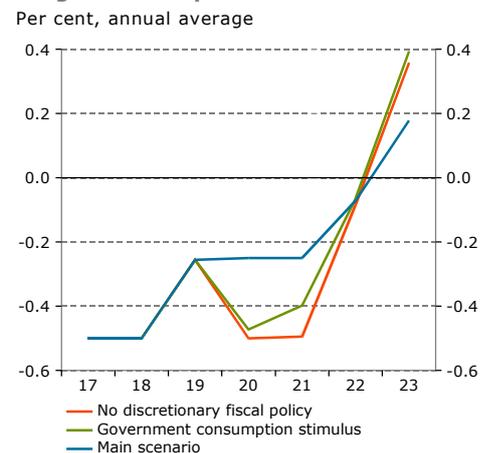
<sup>8</sup> See the box "About SELMA".

**Diagram 31 CPIF-inflation**



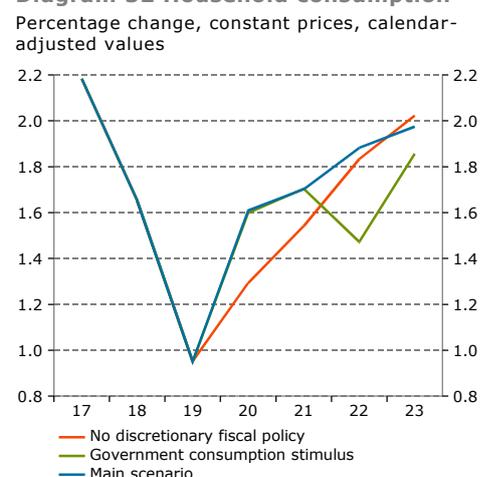
Sources: Statistics Sweden and NIER.

**Diagram 33 Repo rate**



Sources: The Riksbank and NIER.

**Diagram 32 Household consumption**



Sources: Statistics Sweden and NIER.

Since growth in household consumption and investment, which both depend partly on imported intermediates, decreases, so does import growth (see Diagram 35).

Once the repo rate and the foreign policy rate have reached their lower bounds, household consumption, investment and exports will be lower than in the base scenario and thus explain why GDP growth is lower than in the base scenario and why the output gap is negative for three years. Without the lower bounds for policy rates in Sweden and abroad, GDP growth would still be lower than in the base scenario, but higher than in this scenario. The output gap would still deteriorate but would be less negative.

Since the output gap is negative, there is an increase in transfers to households via the automatic stabilisers (see Diagram 36). This cushions the fall in household disposable income as a result of households' lower labour income.

Lower consumption and lower labour income lead to lower tax revenue and so lower primary government revenue than in the base scenario. At the same time, primary government expenditure increases as a result of increased transfers to households. All in all, reduced revenue and increased expenditure lead to a higher Maastricht debt than in the base scenario (see Diagram 38). Structural net lending is calculated to reflect what government net lending would be if capacity utilisation in the economy were balanced (zero output gap).<sup>9</sup> Structural net lending will not be affected appreciably by an economic downturn in Sweden caused by lower foreign demand (see Diagram 37).<sup>10</sup>

To sum up, lower foreign demand leads to lower exports and so lower demand for domestic intermediates than in the base scenario. This causes hours worked to fall and hourly wages to rise more slowly. A negative output gap and lower inflation cause the Riksbank to cut the repo rate. The Riksbank is limited, however, in how far it can lower the repo rate. Household consumption and investment therefore decrease relative to the base scenario. Together with lower exports, this leads to lower GDP growth.

#### SCENARIO: INCREASED GOVERNMENT CONSUMPTION

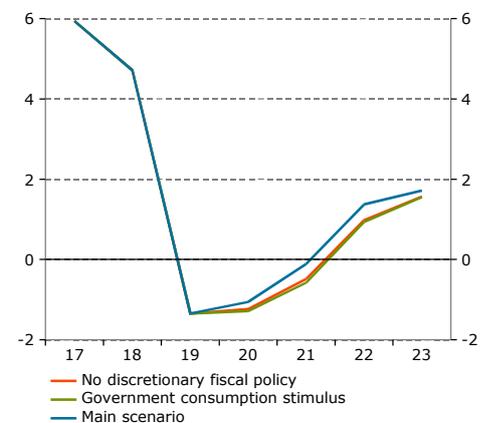
In the scenario above, the Riksbank is unable to make monetary policy sufficiently expansionary to counter the negative effects of lower foreign demand on Swedish GDP to the extent that it

<sup>9</sup> One exception is capital costs on government debt, which are not adjusted for business cycle effects.

<sup>10</sup> Higher Maastricht debt results in slightly higher interest costs which need to be covered, but the effect on transfers is negligible.

**Diagram 34 Investments**

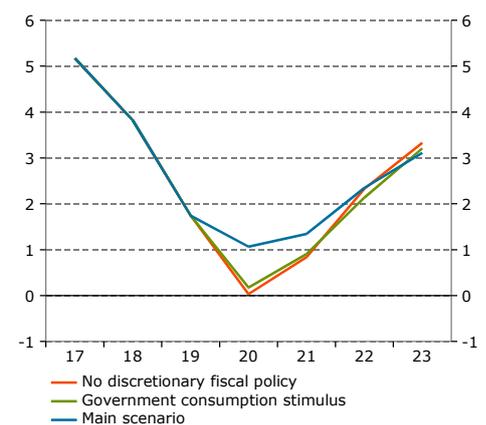
Percentage change, constant prices, calendar-adjusted values



Sources: Statistics Sweden and NIER.

**Diagram 35 Swedish imports**

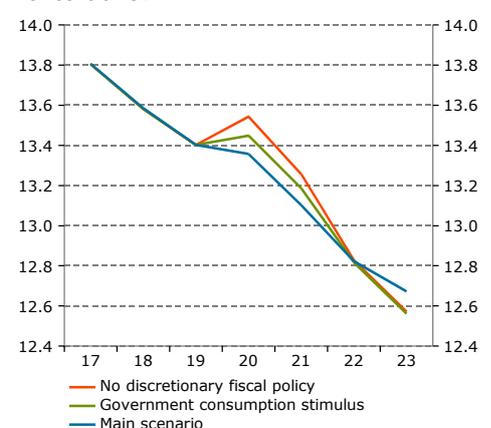
Percentage change, constant prices, calendar-adjusted values



Sources: Statistics Sweden and NIER.

**Diagram 36 Transfers to households**

Per cent of GDP



Sources: Statistics Sweden and NIER.

would wish. Other instruments are therefore needed to stimulate the economy, such as fiscal policy. In this second scenario, a fiscal stimulus package is introduced whereby government consumption is 1.2 per cent higher than in the scenario with no discretionary fiscal policy for two years, 2020 and 2021. This corresponds to consumption in each of these two years being around SEK 15 billion higher in constant prices compared to the base scenario. In 2022, the stimulus package is withdrawn, and government consumption returns to the scenario with no discretionary fiscal policy. Government consumption therefore needs to increase more slowly in 2022 (see Diagram 39).

It is also assumed in this scenario that the government does not adjust transfers in 2020 and 2021 to maintain structural net lending in those years in line with the guideline (of one-third of a percent of potential GDP in a normal economic climate).<sup>11</sup> In other words, the deficit in public finances caused by the increase in government consumption in 2020 and 2021 is debt-financed.

The fiscal stimulus means that the slowdown in GDP growth is only half what it was in the scenario with no discretionary fiscal policy in those two years. This scenario is illustrated by the green line in the diagrams.

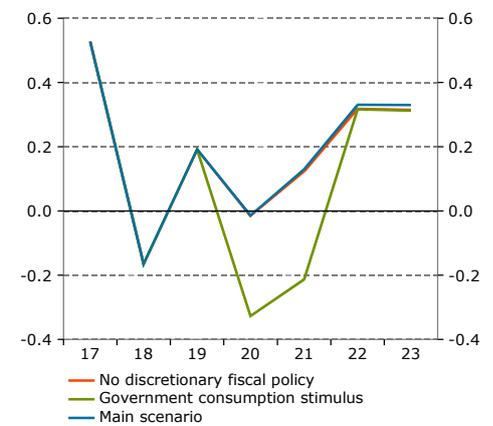
Household consumption is higher than in the scenario with no discretionary fiscal policy and grows at the same rate as in the base scenario in both 2020 and 2021 (see Diagram 32). The rise in government consumption is assumed to boost the propensity to consume among households with savings.<sup>12</sup> They therefore increase their consumption. Households without savings also increase their consumption relative to the scenario with no discretionary fiscal policy, because hours worked and hourly wages are higher, boosting household disposable income.

CPIF inflation can be divided into a domestic component and an imported component. The greater demand for private and government consumption leads domestic producers of intermediates to raise their prices, resulting in higher domestic inflation than in the scenario with no discretionary fiscal policy. Prices on imports for household consumption do not differ appreciably between the two scenarios in 2020–2021. CPIF inflation therefore increases (see Diagram 31).

Although inflation and GDP growth are higher than in the scenario with no discretionary fiscal policy, the Riksbank would

**Diagram 37 Structural net lending in general government**

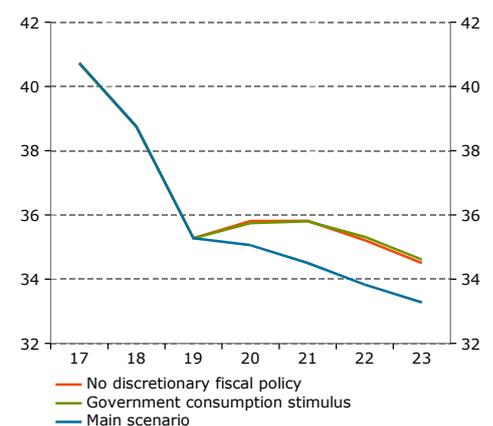
Per cent of potential GDP



Source: NIER.

**Diagram 38 Maastricht debt**

Per cent of GDP



Sources: Statistics Sweden and NIER.

<sup>11</sup> Note that this policy is in keeping with the fiscal framework, because the economy is now operating below capacity (negative output gap). In such a situation, structural net lending is permitted to depart from the guideline of one-third of a percent of potential GDP.

<sup>12</sup> Similar assumptions are made in other models of the same type. See, for example, Coenen G., Straub R. and Trabandt M., "Gauging the effects of fiscal stimulus packages in the euro area", *Journal of Economic Dynamics and Control* 37(2), 2012, pp. 367-386.

still want a repo rate below the lower bound during part of 2020 and 2021. However, it takes slightly longer for the repo rate to reach the lower bound than in the scenario with no discretionary fiscal policy, and the repo rate leaves the lower bound again slightly earlier. The lower bound therefore binds only for part of 2020 and part of 2021.<sup>13</sup> The difference in the repo rate between the scenarios is not that great, but it does entail a slightly higher interest rate path (see Diagram 33). Since the interest rate path is close to that in the scenario with no discretionary fiscal policy, the exchange rate does not differ appreciably between the two scenarios (see Diagram 28). The strengthening of the krona that nevertheless occurs as a result of the slightly higher repo rate is counteracted by a slight deterioration in the net foreign asset position.

Domestic producers of intermediates use labour and capital in their production. Although demand for domestic intermediates is higher, investment growth is around the same as in the scenario with no discretionary fiscal policy (see Diagram 34). There is a substitution from capital to labour in the production of these goods, and monetary policy is a little less expansionary than in the scenario with no discretionary fiscal policy.

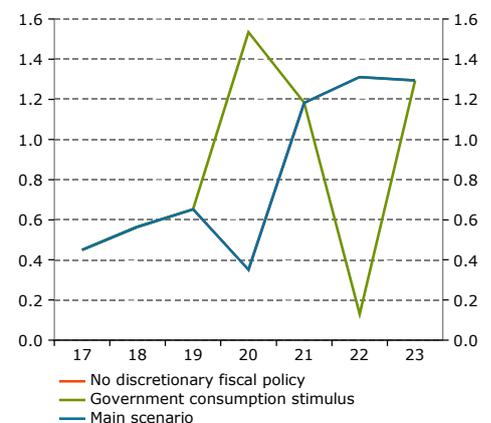
Since the exchange rate and foreign demand are unchanged, exports are also unchanged from the scenario with no discretionary fiscal policy (see Diagram 27). Imports rise, however, because household consumption – met partly using imported intermediates – increases.

To sum up, GDP growth is higher in 2020 and 2021 than in the scenario with no discretionary fiscal policy (see Diagram 25). The slowdown in export growth is the same in both scenarios, but GDP growth is boosted by higher domestic consumption. Meanwhile, higher imports put a slight damper on growth.

### Unemployment

SELMA models the number of hours worked in the economy but not unemployment. To estimate how unemployment might move in the two alternative scenarios, certain assumptions must be made. First, it is assumed that an increase/decrease in hours worked leads to a corresponding increase/decrease in employment. In other words, the number of hours worked per employee is assumed to be constant. For example, if hours worked increase by 2 per cent, employment too increases by 2 per cent. The second assumption that needs to be made concerns how the

**Diagram 39 Government consumption**  
Percentage change, constant prices, calendar-adjusted values



Sources: Statistics Sweden and NIER.

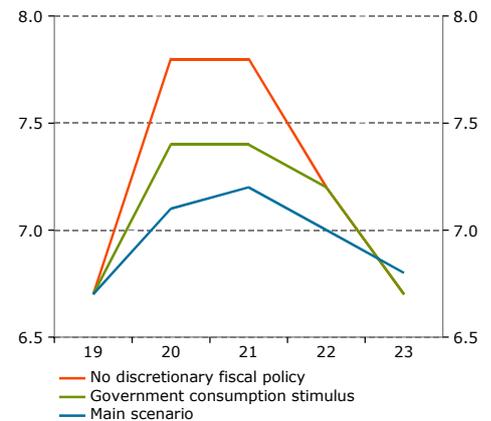
<sup>13</sup> Note, however, that Diagram 32 presents the annual averages and so does not show the lower bound binding for part of 2020 and part of 2021.

increase/decrease in employment affects the labour force. It is assumed here that for each 1 percent that employment increases/decreases, the labour force increases/decreases by 0.25 percent, which would be a reasonable cyclical response from the labour force. Given these assumptions, the change in unemployment can be estimated on the basis of the change in hours worked in both of the alternative scenarios.

In the scenario with no discretionary fiscal policy, unemployment is 0.7 percentage points higher compared to the base scenario in 2020, and 0.6 percentage points higher in 2021 (see Diagram 40). It then falls and is lower than in the base scenario in 2023. In the scenario with an increase in government consumption, unemployment is 0.4 percentage points lower compared to the scenario with no discretionary fiscal policy in both 2020 and 2021. The stimulus package thus more than halves the rise in unemployment that results from a downturn in foreign demand.

**Diagram 40 Unemployment**

Per cent of labour force



Sources: Statistics Sweden and NIER.

The stronger demand for domestic intermediates means that domestic producers of these goods increase their demand for labour, and so the number of hours worked rises (see Diagram 29). The increase in demand for labour, together with higher inflation, leads to higher hourly wages than in the scenario with no discretionary fiscal policy (see Diagram 30).

Transfers to households are lower than in the scenario with no discretionary fiscal policy, because the output gap is less negative (see Diagram 36). However, the rise in government consumption means that primary government expenditure is higher compared to the scenario with no discretionary fiscal policy. On the revenue side, tax revenue increases as a result of higher household consumption and labour income pushing up revenue from these tax bases. Since GDP growth and inflation are also higher, however, primary government revenue is not much different as a share of GDP compared to the scenario with no discretionary fiscal policy. Maastricht debt does not, however, differ particularly as a share of GDP from the scenario with no discretionary fiscal policy (see Diagram 38), due to the higher nominal GDP growth.

Structural net lending is lower in 2020-2021 as a consequence of higher government consumption pushing up expenditure. From 2022, the fiscal stimulus is withdrawn, which means that structural primary expenditure moves back in line with the scenario with no discretionary fiscal policy. Structural net lending is

therefore in line with the guideline of one-third of a percent of potential GDP from 2022 (see Diagram 37).<sup>14</sup>

To sum up, the scenario shows that a temporary increase in government consumption could be an effective way of stabilising GDP growth in a situation where the Riksbank can only help stabilise the economy to a limited extent as a result of the repo rate reaching its lower bound. The increase in government consumption results in higher GDP growth and higher inflation compare to the scenario with no discretionary fiscal policy. The increase in Maastricht debt as a share of GDP is also minor under these assumptions. If the repo rate remains at a level close to the lower bound for a long period, and the Riksbank therefore has limited room for manoeuvre, fiscal policy becomes an important instrument in stabilising the economy in an economic downturn. At the same time, the Riksbank is still in a position to stabilise an economy in an upturn. Taken together, this could have implications for the surplus target.

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<sup>14</sup> Given that interest payments on Maastricht debt are at the same level as in the scenario with no discretionary fiscal policy, there is no need for any further cuts in transfers to households to meet the surplus target beyond those in that scenario.

## Special Analysis

# Automatic fiscal tightening provides scope for unfunded measures

**In the absence of active fiscal policy, public finances will strengthen over time. This “automatic fiscal tightening” occurs because, without active fiscal measures, revenue will tend to grow with the economy, while spending will generally fall as a share of GDP. This normally generates fiscal space. Our estimates show fiscal space of around SEK 100 billion in the period from 2021 to 2023.<sup>15</sup> Given the macroeconomic scenario we present, it will therefore be possible to introduce unfunded measures (such as tax cuts and spending increases) of this magnitude over the same period while keeping structural net lending in line with the surplus target. This special analysis explains why this automatic fiscal tightening arises and how it normally results in fiscal space.**

Our fiscal scenario assumes active fiscal policy to maintain personnel density in the provision of publicly funded services at 2020 levels plus an annual increase in standards corresponding to 0.4 per cent. This assumption differs from the government’s calculations, which are based on current rules and measures announced in the latest budget bill.

Alongside this fiscal scenario, we also perform calculations that do not include any fiscal measures beyond those set out in the latest budget bill and relating to the fiscal year in question. This alternative approach is referred to as “unchanged rules” and is more comparable with the government’s forecasts.<sup>16</sup> With unchanged rules, there will be automatic fiscal tightening over time that generates fiscal space.

## How does automatic fiscal tightening arise?

With unchanged rules, revenue will move roughly in line with nominal GDP over time. A few taxes, such as the duties on

### Fiscal space or reform space?

In Sweden, the term reform space is sometimes used synonymously with fiscal space. However, there is no consensus on what it means in economic terms, and the method for calculating reform space is not necessarily the same as the method presented in this special analysis.

<sup>15</sup> The fiscal space presented in our June report was slightly higher. The difference is due mainly to the June estimate referring to the period from 2020 to 2023, whereas the new estimate covers only the period from 2021 to 2023.

<sup>16</sup> The NIER’s calculations with unchanged rules do not include announcements in the latest budget bill relating to fiscal years after the coming one. This differs from the approach taken by the government and the Swedish National Financial Management Authority (ESV), which both include measures announced for subsequent years in their calculations.

alcohol and tobacco, are set in nominal terms, which means that revenue from them will gradually decrease as a share of GDP. The majority of taxes, however, are directly linked to a tax base. Large tax bases such as consumption and labour income move more or less with GDP over time, and so total tax revenue will grow in line with GDP with unchanged rules. Spending, on the other hand, does not have a direct link to economic growth. For expenditure not to fall as a share of GDP, active policy measures will normally be required. Diagram 41 shows how revenue and expenditure move with unchanged rules in our current forecast. Expenditure drops from around 49 per cent of GDP in 2020 to around 46 per cent in 2023, whereas revenue is relatively stable as a share of GDP.

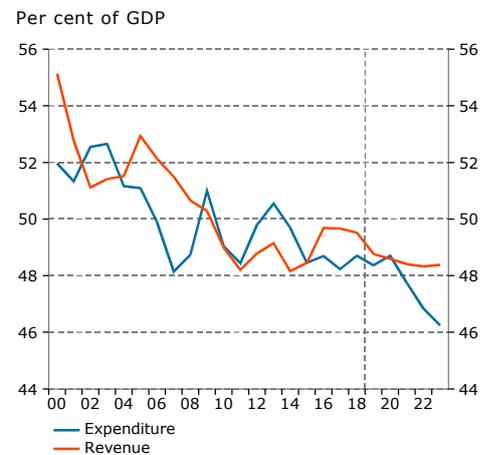
### RULES FOR CENTRAL GOVERNMENT EXPENDITURE EXPLAIN WHY SPENDING RISES MORE SLOWLY THAN GDP

When we estimate automatic fiscal tightening, the starting point is the various rules that govern central government expenditure. The decline in spending as a share of GDP with unchanged rules is a result of how the different types of expenditure rise each year in the absence of active policy measures from the government or parliament. Central government expenditure can be divided into three types: nominally determined, rule-based and institutional. *Nominally determined expenditure* is dominated by general grants to the local government sector, which are set in nominal terms and are not therefore linked in any way to GDP growth. With unchanged rules, we assume that this expenditure will stay at the level proposed in the government's latest budget bill.<sup>17</sup> *Rule-based expenditure* consists primarily of transfer payments to households. Most transfers move partly with changes in volume (number of recipients) but also with changes in prices, as some benefits are linked to inflation. Even with unchanged volumes, this expenditure will therefore increase somewhat each year, but it will decrease as a share of GDP over time because nominal GDP generally rises more quickly than prices.<sup>18</sup> *Institutional expenditure* rises each year on the basis of an annual "PLO adjustment", which reflects movements in prices and wages but also includes a deduction for productivity growth. This expenditure therefore normally rises more slowly than nominal

<sup>17</sup> This assumption differs from the government's method, where nominal changes to general grants to local government are included in the calculations once announced even if not yet approved. This currently means that general grants to local government increase slightly in 2021 and 2022 in the government's forecast, but hold at 2020 levels in the NIER's forecast with unchanged rules.

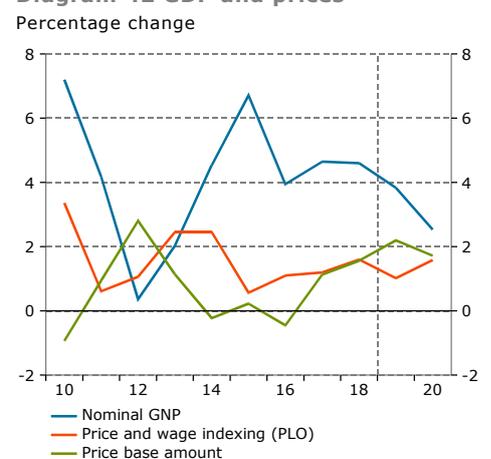
<sup>18</sup> Nominal GDP growth is the sum of growth in real GDP (i.e. volume changes) and the GDP deflator (i.e. price changes).

**Diagram 41 Government expenditure and revenue with unchanged rules after 2020**



Source: NIER.

**Diagram 42 GDP and prices**



Sources: Statistics Sweden and NIER.

GDP (see Diagram 42).<sup>19</sup> It is mainly funding for central government institutions that follows the PLO system.

### “GOOD FINANCIAL MANAGEMENT” ASSUMED IN THE LOCAL GOVERNMENT SECTOR

Expenditure at municipalities and county councils depends largely on developments in the size and composition of the population. Unlike in the central government sector, there are no specific rules on spending. Instead, the local government sector is governed by a balanced-budget requirement and an expectation of “good financial management” (see box “Good financial management”). Exactly as in our fiscal scenario, the local government sector as a whole is assumed to meet the expectation of good financial management with unchanged rules. The NIER’s operationalisation of good financial management corresponds to net lending in the longer term (currently 2024) reaching -0.3 per cent of GDP.

Since the rate of municipal taxation is assumed to be unchanged at 2020 levels with unchanged rules, tax revenue will rise largely with GDP. Central government grants to the local government sector are also assumed to be unchanged in nominal terms, which means that local government revenue as a whole will decrease as a share of GDP over time. To meet the expectation of good financial management, the local government sector must therefore adjust its spending. At present, the sector’s net lending is below the level that we consider to be consistent with good financial management in the longer term (see Diagram 43). Significant tightening will be needed to achieve net lending of -0.3 per cent. This means that expenditure (which consists mainly of consumption) falls as a share of GDP with unchanged rules. This tightening means that consumption does not rise with the demographic need, with the result that personnel density in the provision of public services decreases over time.

## Automatic fiscal tightening normally generates fiscal space

Under Sweden’s fiscal policy framework, general government net lending shall average one-third of a percent of GDP over a business cycle. To gauge compliance with this surplus target,

### Good financial management

The Swedish Local Government Act requires municipalities and county councils to meet a balanced-budget requirement and practise good financial management. The *balance-budget requirement* means that municipalities and county councils are not permitted to budget spending in excess of revenue without a special reason. The expectation of *good financial management* is not quantified: it is left to each municipality and county council to make its own interpretation. The Swedish Association of Local Authorities and Regions developed a rule of thumb in 2005 to assist municipalities and county councils in their planning. This rule of thumb is that an authority’s surplus should be 2 per cent of taxes and general grants from central government. Depending on the local starting point and other local factors, this level may be either higher or lower.

The NIER’s operationalisation of *good financial management* for the local government sector as a whole is net financial wealth that is stable over time as a share of GDP. At present, this is considered to be equivalent to net lending of -0.3 per cent of GDP. This corresponds to a net income of around 4 per cent of taxes and general grants from central government.

Diagram 43 Net lending in local government

Per cent of GDP



Sources: Statistics Sweden and NIER.

<sup>19</sup> The PLO system aims to compensate central government institutions for increases in prices, adjusted for an efficiency and productivity requirement, also known as a productivity deduction. This deduction is calculated to correspond to a ten-year average of productivity growth in the private service sector.

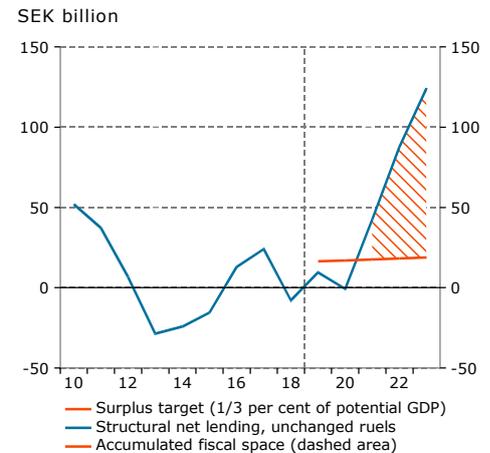
structural net lending – net lending adjusted for cyclical effects – is used as an indicator. The automatic fiscal tightening due to government spending rising more slowly than GDP means that structural net lending improves over time. If net lending exceeds one-third of a percent of potential GDP<sup>20</sup> with unchanged rules, there is considered to be fiscal space – i.e. scope for unfunded measures. The size of this fiscal space corresponds to the difference between structural net lending with unchanged rules and one-third of a percent of potential GDP (see Diagram 44). Estimates of structural net lending and fiscal space are associated with considerable uncertainty.<sup>21</sup>

## How does the NIER's method differ from that of the government?

The method that the government uses to calculate automatic fiscal tightening is in many respects similar to the NIER's method. The main difference lies in the interpretation of what level of local government net lending is consistent with good financial management. While we look at local government net lending and take the view that it should be -0.3 per cent of GDP in the longer term, the government method presumes that the local government sector generates a net income at the end of the forecast horizon of 2 per cent of taxes and general grants from central government. At present, there is a considerable gap between the local government sector's net income and its net lending. This is explained mainly by the sector's increased levels of investment since the 2000s impacting directly on net lending but having only a minor effect on current net income via depreciation. The differing assumptions made by the NIER and the government on the target level for local government net lending mean that the sector needs to save more in our scenario. All else equal, this means a higher level of automatic fiscal tightening – and so more fiscal space – in our scenario.

However, there are also other factors that affect fiscal space, such as the estimate of current structural net lending. In the forecast presented by the government in its budget bill for 2020, structural net lending (in per cent of potential GDP) next year is around 0.2 percentage points higher than estimated by the NIER. All else equal, this means more fiscal space. The difference in structural net lending is due primarily to different views on actual net lending.

**Diagram 44 Structural net lending with unchanged rules and fiscal space**



Note. The fiscal space refers to the entire general government.

Sources: Statistics Sweden and NIER.

<sup>20</sup> Potential GDP is the output level with the economy operating exactly at capacity, i.e. with neither a positive nor a negative output gap.

<sup>21</sup> See the special analysis "Strukturellt sparande – en osäker bedömning" [Structural net lending – an uncertain quantity] in the Swedish version of *The Swedish Economy*, June 2019.

# Tables

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).

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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

	<b>Weight 2018<sup>1</sup></b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>
World	100.0	3.8	3.6	3.1	3.0	3.1	3.2	3.3
KIX Weighted <sup>2</sup>	74.8	3.1	2.5	1.9	1.8	1.9	1.9	1.9
US	15.2	2.4	2.9	2.3	1.8	1.7	1.7	1.7
Euro Area	13.1	2.7	1.9	1.1	1.0	1.3	1.3	1.3
Germany	3.2	2.8	1.5	0.5	0.7	...	...	...
France	2.2	2.4	1.7	1.3	1.3	...	...	...
Finland	0.2	3.0	1.7	1.3	1.3	...	...	...
Japan	4.1	1.9	0.8	1.0	0.4	...	...	...
UK	2.2	1.9	1.4	1.2	0.8	...	...	...
Sweden	0.4	2.7	2.4	1.2	0.8	1.6	1.8	1.7
Norway	0.3	2.7	1.6	1.2	1.8	...	...	...
Denmark	0.2	2.3	1.5	1.9	1.4	...	...	...
China	18.7	6.8	6.7	6.2	6.0	...	...	...
India	7.8	7.0	7.3	5.4	6.3	...	...	...
Brazil	2.5	1.1	1.1	0.9	1.6	...	...	...
Rest of the World <sup>3</sup>	25.2	3.2	2.8	2.3	2.5	...	...	...
<b>Market Growth</b>								
World <sup>4</sup>	...	5.3	3.5	2.7	2.8	3.2	3.2	3.3

<sup>1</sup>The weights indicate each country or region's purchasing power-adjusted share of IMF. <sup>2</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>3</sup>The rest of the world is defined here as countries that are not part of the KIX aggregate, that is, not belonging to Sweden's 32 most important trading partners. <sup>4</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 table shows some of the countries that the NIER makes forecasts for. 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

	2016	2017	2018	2019	2020	2021	2022	2023
US	1.3	2.1	2.4	1.9	2.2	2.3	2.3	2.3
Euro Area	0.2	1.5	1.8	1.2	1.3	1.6	1.8	1.9
Germany	0.3	1.7	1.9	1.4	1.4	...	...	...
France	0.3	1.2	2.1	1.3	1.3	...	...	...
Finland	0.4	0.8	1.2	1.2	1.4	...	...	...
Japan	-0.1	0.5	1.0	0.7	1.4	...	...	...
UK	1.0	2.6	2.3	1.9	2.0	...	...	...
Sweden	1.4	2.0	2.1	1.7	1.5	1.6	1.8	2.0
Norway	3.9	1.9	3.0	2.4	1.9	...	...	...
Denmark	0.0	1.1	0.7	0.9	1.4	...	...	...
China	2.0	1.6	2.1	2.5	3.0	...	...	...
India	4.9	2.5	4.9	6.3	4.5	...	...	...
Brazil	8.7	3.4	3.7	3.9	4.1	...	...	...

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. CPI for the United Kingdom refers to CPIH, including owner occupiers' housing costs. 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

	Nivå 2018	2017	2018	2019	2020	2021	2022	2023
Household Consumption Expenditure	6 231	1.8	1.4	1.2	1.0	...	...	...
General Government Consumption Expenditure	2 343	1.5	1.1	1.2	0.9	...	...	...
Gross Fixed Capital Formation	2 427	3.8	2.3	2.7	1.7	...	...	...
Stockbuilding <sup>1</sup>	65	0.1	0.1	-0.4	0.0	...	...	...
Exports	5 540	5.7	3.5	2.5	2.0	...	...	...
Imports	5 031	5.0	2.7	2.5	2.3	...	...	...
<b>GDP</b>	<b>11 576</b>	<b>2.7</b>	<b>1.9</b>	<b>1.1</b>	<b>1.0</b>	<b>1.3</b>	<b>1.3</b>	<b>1.3</b>
HICP <sup>2</sup>	...	1.5	1.8	1.2	1.3	1.6	1.8	1.9
Unemployment <sup>3</sup>	...	9.1	8.2	7.6	7.4	...	...	...
Policy Rate <sup>4</sup>	...	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10-Year Government Bond Yield <sup>5</sup>	...	0.4	0.5	-0.3	-0.3	0.1	0.6	1.0
Overnight Rate <sup>6</sup>	...	-0.3	-0.4	-0.5	-0.5	-0.5	-0.3	-0.1
USD/EUR <sup>7</sup>	...	1.1	1.2	1.1	1.1	1.1	1.1	1.1

<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> Per cent. Refers to Germany. <sup>6</sup> Per cent, at year-end. <sup>7</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

	<b>Nivå</b>							
	<b>2018</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>
Household Consumption Expenditure	13 952	2.6	3.0	2.6	2.2	...	...	...
General Government Consumption Expenditure	2 844	0.6	1.7	1.8	1.5	...	...	...
Gross Fixed Capital Formation	4 274	3.7	4.1	2.2	2.0	...	...	...
Stockbuilding <sup>1</sup>	57	0.0	0.1	0.2	-0.1	...	...	...
Exports	2 531	3.5	3.0	0.2	2.1	...	...	...
Imports	3 156	4.7	4.4	2.0	3.1	...	...	...
<b>GDP</b>	<b>20 501</b>	<b>2.4</b>	<b>2.9</b>	<b>2.3</b>	<b>1.8</b>	<b>1.7</b>	<b>1.7</b>	<b>1.7</b>
CPI <sup>2</sup>	...	2.1	2.4	1.9	2.2	2.3	2.3	2.3
Unemployment <sup>3</sup>	...	4.4	3.9	3.7	3.8	...	...	...
Policy Rate <sup>4</sup>	...	1.50	2.50	1.75	1.75	1.75	2.00	2.00
10-year Government Bond Yield <sup>5</sup>	...	2.3	2.9	2.1	1.8	2.1	2.3	2.5
USD/EUR <sup>6</sup>	...	1.13	1.18	1.12	1.09	1.10	1.10	1.12

<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.

## Interest and Exchange Rates

**Table A5 Interest and Exchange Rates**

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

	2016	2017	2018	2019	2020	2021	2022	2023
<b>At Year-End</b>								
Repo Rate	-0.50	-0.50	-0.50	-0.25	-0.25	-0.25	0.00	0.25
Policy Rate. KIX6-Weighted <sup>1</sup>	-0.14	-0.04	0.10	0.00	-0.02	-0.03	0.12	0.30
<b>Annual Average</b>								
Repo Rate	-0.48	-0.50	-0.50	-0.26	-0.25	-0.25	-0.07	0.18
5-Year Government Bond Yield	-0.22	-0.06	0.08	-0.41	-0.39	-0.01	0.47	1.00
10-Year Government Bond Yield	0.54	0.65	0.65	0.00	0.07	0.53	1.00	1.43
Effective Krona Exchange Rate Index (KIX)	111.7	112.9	117.6	122.5	124.2	122.7	120.6	117.0
EUR Exchange Rate	9.5	9.6	10.3	10.6	10.8	10.6	10.5	10.2
USD Exchange Rate	8.6	8.5	8.7	9.5	9.8	9.7	9.5	9.1

<sup>1</sup> Refers to an average of Eonia (for the euro area) and policy rates in the US, Norway, UK, Denmark and Japan.

Sources: Sveriges Riksbank, Macrobond and NIER.

# The Swedish Economy

**Table A6 GDP by Expenditure**

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

	<b>Level 2018</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>
Household Consumption Expenditure <sup>1</sup>	2 157	2.1	1.6	0.9	1.7	1.7	1.9	1.9
Goods	998	2.9	1.9	1.3	1.5	...	...	...
Services Excl. Housing	675	0.8	1.6	1.9	2.2	...	...	...
Housing	413	1.3	3.6	1.8	2.1	...	...	...
General Government Consumption Expenditure	1 259	0.1	0.4	0.6	0.7	1.4	1.3	1.0
Central Government	324	-2.0	0.0	-0.5	0.1	...	...	...
Local Government	935	0.9	0.5	1.0	1.0	...	...	...
Gross Fixed Capital Formation <sup>2</sup>	1 254	5.6	4.6	-1.4	-0.8	0.0	1.4	1.4
Business Sector Excl. Housing	764	4.5	6.9	0.3	-1.1	...	...	...
Industry	182	0.8	5.5	-0.9	-4.0	...	...	...
Other Goods Producers	132	6.1	7.6	-1.8	-1.8	...	...	...
Service Producers Excl. Housing	450	5.6	7.3	1.4	0.3	...	...	...
Housing	262	7.9	-3.8	-8.8	-2.2	...	...	...
General Government	222	6.4	7.5	1.6	1.7	...	...	...
<i>Domestic Demand Excl. Stockbuilding</i>	<i>4 670</i>	<i>2.4</i>	<i>2.1</i>	<i>0.2</i>	<i>0.8</i>	<i>1.2</i>	<i>1.6</i>	<i>1.5</i>
Stockbuilding <sup>3</sup>	47	0.1	0.5	-0.3	-0.2	0.0	0.0	0.0
<i>Total Domestic Demand</i>	<i>4 716</i>	<i>2.5</i>	<i>2.5</i>	<i>-0.1</i>	<i>0.6</i>	<i>1.2</i>	<i>1.6</i>	<i>1.5</i>
Exports	2 211	4.3	3.1	4.3	2.4	2.5	2.7	2.6
Exports of Goods	1 559	4.6	4.5	3.1	2.2	...	...	...
Processed Goods	1 217	5.4	5.5	4.3	2.4	...	...	...
Raw Materials	342	1.2	0.6	-0.9	1.8	...	...	...
Exports of Services	652	3.6	0.1	7.2	2.8	...	...	...
<i>Total Demand</i>	<i>6 927</i>	<i>3.1</i>	<i>2.7</i>	<i>1.3</i>	<i>1.2</i>	<i>1.6</i>	<i>2.0</i>	<i>1.9</i>
Imports	2 094	4.8	3.6	1.7	1.4	1.5	2.3	2.8
Imports of Goods	1 442	4.6	5.0	0.1	1.7	...	...	...
Processed Goods	1 042	6.5	5.0	1.0	1.5	...	...	...
Raw Materials	399	-0.9	4.8	-2.2	2.1	...	...	...
Imports of Services	652	5.0	0.9	5.3	1.0	...	...	...
<i>Net Exports<sup>3</sup></i>	<i>117</i>	<i>0.0</i>	<i>-0.1</i>	<i>1.2</i>	<i>0.5</i>	<i>0.5</i>	<i>0.3</i>	<i>0.1</i>
<b>GDP</b>	<b>4 834</b>	<b>2.4</b>	<b>2.3</b>	<b>1.2</b>	<b>1.1</b>	<b>1.7</b>	<b>1.8</b>	<b>1.5</b>
GDP per Capita <sup>4</sup>	475	1.0	1.1	0.2	0.2	0.9	1.0	0.8

<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.

Sources: Statistics Sweden and NIER.

**Table A7 Household Income, Consumption Expenditure and Saving**

SEK billion, current prices, and percentage change, respectively

	Level 2018	2017	2018	2019	2020	2021	2022	2023
Total Earnings, Adjusted for External Transactions	1 930	4.9	4.9	3.8	2.7	3.2	3.5	3.6
Hourly Earnings (according to national accounts) <sup>1,2</sup>	241	2.6	2.2	2.7	2.6	2.7	2.8	2.9
Hours Worked <sup>1,3</sup>	7 963	2.4	2.6	1.0	0.1	0.4	0.7	0.7
Transfers From Government Sector, Net	644	2.4	2.9	2.5	2.2	1.4	1.4	2.3
Property Income, Net	305	-0.8	4.5	1.5	3.4	3.7	1.4	1.4
Other Income, Net <sup>4</sup>	302	4.6	4.4	6.9	4.9	3.6	3.6	4.7
<b>Income Before Taxes<sup>5</sup></b>	<b>3 181</b>	<b>3.8</b>	<b>4.4</b>	<b>3.6</b>	<b>2.9</b>	<b>2.9</b>	<b>2.9</b>	<b>3.3</b>
Direct Taxes <sup>6</sup>	852	0.1	0.6	0.6	0.4	0.0	-0.1	-0.1
<b>Disposable Income</b>	<b>2 329</b>	<b>3.9</b>	<b>5.0</b>	<b>4.2</b>	<b>3.3</b>	<b>2.9</b>	<b>2.8</b>	<b>3.2</b>
Consumer Prices <sup>7</sup>	...	1.8	2.2	1.8	1.4	1.4	1.8	2.0
<b>Real Disposable Income</b>	<b>2 329</b>	<b>2.1</b>	<b>2.7</b>	<b>2.3</b>	<b>1.9</b>	<b>1.4</b>	<b>1.0</b>	<b>1.2</b>
Per Capita <sup>8</sup>	229	0.7	1.5	1.3	1.0	0.6	0.2	0.4
<b>Consumption Expenditure<sup>9</sup></b>	<b>2 157</b>	<b>2.1</b>	<b>1.6</b>	<b>0.9</b>	<b>1.7</b>	<b>1.7</b>	<b>1.9</b>	<b>1.9</b>
Saving <sup>10</sup>	393	13.3	15.4	16.0	16.0	15.5	14.6	13.9
Own Saving <sup>10</sup>	172	6.4	7.4	8.6	8.8	8.4	7.6	6.9
Net Lending <sup>10</sup>	283	8.8	11.1	12.3	12.5	12.1	11.2	10.5

<sup>1</sup> Calendar-adjusted values. <sup>2</sup> SEK per hour. <sup>3</sup> Employees only. <sup>4</sup> This also includes computational calculations of transfers to households through altered taxes and/or transfers, see table A20. <sup>5</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>6</sup> Direct taxes' contribution to the change in disposable income, expressed in percentage. <sup>7</sup> Implicit price index for household consumption expenditure. <sup>8</sup> SEK thousand. <sup>9</sup> Constant prices, reference year 2015. <sup>10</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

	2016	2017	2018	2019	2020	2021	2022	2023
Net Exports	162	148	117	200	213	238	252	255
Of Which: Goods	123	126	117	194	200	...	...	...
Services	38	22	0	6	13	...	...	...
Earnings, Net	9	7	8	9	10	10	10	9
Investment Income, Net	19	61	65	99	113	109	105	101
Transfers etc., Net	-52	-65	-75	-77	-83	-86	-89	-92
<b>Current Account Balance</b>	<b>137</b>	<b>150</b>	<b>115</b>	<b>231</b>	<b>252</b>	<b>271</b>	<b>278</b>	<b>273</b>
<i>Per cent of GDP</i>	<i>3.1</i>	<i>3.3</i>	<i>2.4</i>	<i>4.6</i>	<i>4.9</i>	<i>5.1</i>	<i>5.0</i>	<i>4.8</i>
Capital Transfers	-1	-1	1	-1	-1	-1	-1	-1
<b>Net Lending</b>	<b>135</b>	<b>149</b>	<b>116</b>	<b>230</b>	<b>251</b>	<b>269</b>	<b>277</b>	<b>272</b>
<i>Per cent of GDP</i>	<i>3.1</i>	<i>3.2</i>	<i>2.4</i>	<i>4.6</i>	<i>4.9</i>	<i>5.1</i>	<i>5.0</i>	<i>4.8</i>

Sources: Statistics Sweden and NIER.

**Table A9 GNI**

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

	<b>Level 2018</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>
GNI	4 909	5.5	4.6	4.5	2.8	3.3	3.5	3.4
Deflator, Domestic Use	...	2.5	2.8	2.3	1.8	1.9	1.9	2.1
<b>Real GNI</b>	<b>...</b>	<b>2.9</b>	<b>1.8</b>	<b>2.2</b>	<b>1.0</b>	<b>1.4</b>	<b>1.5</b>	<b>1.2</b>
Population	10 175	1.4	1.2	1.0	0.9	0.8	0.8	0.7
<b>Real GNI per Capita<sup>1</sup></b>	<b>482</b>	<b>1.5</b>	<b>0.6</b>	<b>1.2</b>	<b>0.1</b>	<b>0.6</b>	<b>0.8</b>	<b>0.5</b>

<sup>1</sup> SEK thousand.

Sources: Statistics Sweden and NIER.

**Table A10 Production**

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

	<b>Level 2018</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>
Goods Producers	1 159	3.5	2.3	1.5	0.5	...	...	...
Of Which: Industry	671	3.2	3.3	1.1	0.7	...	...	...
Construction	290	7.2	3.6	1.5	0.2	...	...	...
Service Producers	2 200	3.0	3.4	1.7	1.1	...	...	...
Business Sector	3 358	3.2	3.0	1.6	0.9	1.8	2.1	2.0
General Government	875	1.5	0.4	0.7	0.4	0.8	0.9	0.6
<b>GDP at Basic Prices<sup>1</sup></b>	<b>4 290</b>	<b>2.9</b>	<b>2.5</b>	<b>1.4</b>	<b>0.8</b>	<b>1.6</b>	<b>1.8</b>	<b>1.7</b>
Taxes/Subsidies on Products	550	1.1	2.2	-0.7	0.9	1.3	1.8	1.7
GDP at Market Prices	4 839	2.7	2.4	1.2	0.8	1.6	1.8	1.7

<sup>1</sup> Including 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

	<b>Level 2018</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>
Goods Producers	1 989	2.3	2.4	-0.4	-0.3	...	...	...
Of Which: Industry	1 021	3.4	1.9	-0.2	-0.4	...	...	...
Construction	655	2.4	5.1	0.3	-0.1	...	...	...
Services Producers	3 918	2.3	2.6	1.3	-0.1	...	...	...
Business Sector	5 907	2.3	2.5	0.8	-0.2	0.3	0.7	0.7
General Government	2 252	2.4	2.1	1.3	0.7	0.8	0.9	0.6
<b>Total Economy<sup>1</sup></b>	<b>8 328</b>	<b>2.3</b>	<b>2.4</b>	<b>0.9</b>	<b>0.1</b>	<b>0.4</b>	<b>0.7</b>	<b>0.7</b>

<sup>1</sup> Including 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

	<b>Level 2018</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>
Goods Producers	583	1.2	-0.1	1.9	0.8	...	...	...
Of Which: Industry	658	-0.2	1.4	1.4	1.0	...	...	...
Construction	443	4.6	-1.4	1.2	0.4	...	...	...
Service Producers	561	0.8	0.8	0.3	1.2	...	...	...
Business Sector	569	0.9	0.5	0.8	1.1	1.5	1.4	1.3
General Government	389	-0.8	-1.7	-0.6	-0.3	0.0	0.0	0.0
<b>Total Economy<sup>1</sup></b>	<b>515</b>	<b>0.6</b>	<b>0.1</b>	<b>0.5</b>	<b>0.7</b>	<b>1.2</b>	<b>1.1</b>	<b>1.0</b>

<sup>1</sup> 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

	<b>Level 2018</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>
Hours Worked <sup>1</sup>	8 328	2.3	2.4	0.9	0.1	0.4	0.7	0.7
Average Hours Worked for Employed <sup>2</sup>	31.3	0.0	0.6	0.7	0.2	-0.1	-0.1	-0.1
Number of Employed	5 113	2.3	1.8	0.2	-0.1	0.6	0.8	0.8
Employment Rate <sup>3</sup>	...	67.8	68.5	68.2	67.8	67.9	68.2	68.5
Labour Force	5 457	2.0	1.4	0.7	0.3	0.6	0.7	0.6
Labour Force Participation Rate <sup>4</sup>	...	72.7	73.1	73.2	73.1	73.2	73.4	73.5
Unemployment <sup>5</sup>	344	6.7	6.3	6.7	7.1	7.2	7.0	6.8
Population Aged 15-74	7 461	1.1	0.8	0.6	0.5	0.4	0.4	0.4

<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 Resource Utilisation**

Percentage change, calendar-adjusted values, unless otherwise indicated

	2016	2017	2018	2019	2020	2021	2022	2023
<b>Labour Market</b>								
Equilibrium Unemployment <sup>1</sup>	6.7	6.8	6.8	6.8	6.8	6.8	6.8	6.8
Actual Unemployment <sup>2</sup>	6.9	6.7	6.3	6.7	7.1	7.2	7.0	6.8
Potential Hours Worked	1.2	1.6	1.6	1.2	0.8	0.7	0.7	0.6
Of Which: Potential Employment	1.1	1.3	1.2	0.8	0.6	0.6	0.6	0.6
Actual Hours Worked	2.0	2.3	2.4	0.9	0.1	0.4	0.7	0.7
Labour Market Gap <sup>3</sup>	-0.4	0.3	1.0	0.8	0.1	-0.2	-0.1	0.0
<b>Productivity</b>								
Potential Productivity	0.5	0.7	0.4	0.7	0.9	1.0	1.0	1.1
Of Which: Potential Productivity, Business Sector	1.1	1.1	1.1	1.2	1.3	1.3	1.3	1.4
Actual Productivity	0.1	0.4	0.0	0.3	0.7	1.1	1.1	1.0
Productivity Gap <sup>4</sup>	1.2	0.9	0.6	0.1	-0.1	0.0	0.1	0.0
<b>GDP</b>								
Potential GDP	1.7	2.2	2.0	1.9	1.7	1.7	1.7	1.7
Actual GDP	2.2	2.7	2.4	1.2	0.8	1.6	1.8	1.7
Output Gap <sup>5</sup>	0.8	1.2	1.6	0.9	0.0	-0.1	0.0	0.0

<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 A15 Hourly Earnings According to the Short-Term Earnings Statistics**

Per cent and percentage change, respectively

	Weight	2017	2018	2019	2020	2021	2022	2023
	2019							
Business Sector	68	2.0	2.5	2.6	2.6	2.7	2.8	2.9
Goods Producers	22	2.0	3.0	2.6	2.7	...	...	...
Of Which: Industry	15	2.1	2.9	2.8	2.7	...	...	...
Construction	7	1.8	3.3	2.3	2.5	...	...	...
Service Producers	46	2.0	2.2	2.5	2.6	...	...	...
Local Government	26	3.1	2.7	2.6	2.6	...	...	...
Central Government	6	2.3	2.8	2.8	2.9	...	...	...
<b>Total</b>	<b>100</b>	<b>2.3</b>	<b>2.5</b>	<b>2.6</b>	<b>2.6</b>	<b>2.7</b>	<b>2.8</b>	<b>2.9</b>
Real Hourly Earnings (CPI) <sup>1</sup>	...	0.5	0.6	0.8	1.2	1.1	0.8	0.7
Real Hourly Earnings (CPIF) <sup>2</sup>	...	0.4	0.4	0.9	1.1	1.1	1.0	0.9

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

Sources: National Mediation Office, Statistics Sweden and NIER.

**Table A16 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

	<b>Nivå</b>							
	<b>2018</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>
Hourly Earnings	248	2.5	2.2	2.9	2.6	2.7	2.8	2.9
Employers' Social Contributions <sup>1</sup> (per cent of earnings)	...	42.1	43.1	43.1	42.9	42.9	42.9	42.9
Hourly Labour Costs <sup>2</sup>	355	2.3	2.8	2.9	2.4	2.7	2.8	2.9
Productivity <sup>3</sup>	...	0.7	0.1	0.8	1.1	1.5	1.4	1.3
Unit Labour Costs	...	1.6	2.7	2.1	1.4	1.2	1.4	1.6

<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 A17 Supply and Use Price Deflators**

Per cent and percentage change, respectively

	<b>Weight</b>							
	<b>2018</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>
GDP	69.8	2.2	2.2	2.6	1.5	1.7	1.8	2.0
General Government <sup>1,2</sup>	13.4	3.8	4.6	3.1	2.6	2.7	2.8	2.9
Business Sector <sup>2</sup>	48.4	1.6	1.5	2.5	1.1	1.4	1.6	1.8
Product Taxes, Net	7.9	3.0	2.5	2.7	2.0	...	...	...
Imports	30.2	4.0	6.0	2.9	0.9	-0.1	-0.4	-1.4
Processed Goods	15.0	2.2	3.9	2.5	1.0	...	...	...
Raw Materials	5.8	12.2	14.8	1.1	-2.2	...	...	...
Services	9.4	2.8	4.6	4.4	2.6	...	...	...
<b>Supply/Use<sup>3</sup></b>	<b>100.0</b>	<b>2.7</b>	<b>3.3</b>	<b>2.7</b>	<b>1.3</b>	<b>1.2</b>	<b>1.2</b>	<b>1.0</b>
General Government Consumption Expenditure	18.2	3.3	4.1	3.0	2.6	2.4	2.6	3.0
Household Consumption Expenditure	31.1	1.8	2.2	1.8	1.4	1.4	1.8	2.0
Gross Fixed Capital Formation	18.1	3.2	3.1	2.0	1.9	1.8	1.4	1.6
Exports	31.9	3.1	4.5	3.6	0.3	-0.2	-0.4	-1.3
Processed Goods	17.6	1.7	3.4	4.6	0.7	...	...	...
Raw Materials	4.9	13.5	14.2	0.7	-4.0	...	...	...
Services	9.4	1.2	1.8	3.3	1.7	...	...	...

<sup>1</sup> Including non-profit institutions serving households. <sup>2</sup> Value added price deflator calculated at basic prices. <sup>3</sup> Including stock-building.

Sources: Statistics Sweden and NIER.

**Table A18 Business Sector Prices, Costs and Profits**

SEK billion, percentage change and per cent, respectively

	Weight 2018	2017	2018	2019	2020	2021	2022	2023
Value Added, Constant Prices <sup>1</sup>	...	3.0	2.9	1.6	1.1	1.9	2.1	1.8
Value-Added Deflator	...	1.6	1.5	2.5	1.1	1.4	1.6	1.8
Value Added, Current Prices <sup>2</sup>	3 353	4.7	4.6	4.2	2.3	...	...	...
Hours Worked, Employees	...	1.8	2.6	0.8	0.5	0.6	0.6	0.1
Hourly Labour Costs <sup>3</sup>	356	2.9	3.1	3.0	1.8	2.4	2.8	3.5
Total Labour Costs <sup>4</sup>	1 966	4.8	5.8	3.8	2.3	3.0	3.5	3.6
Gross Profit	1 387	4.5	2.9	4.7	2.4	...	...	...
<b>Profit Share</b>	...	<b>42.0</b>	<b>41.4</b>	<b>41.6</b>	<b>41.6</b>	<b>41.7</b>	<b>41.8</b>	<b>41.8</b>
Adjusted Profit Share <sup>5</sup>	...	36.3	35.8	36.0	36.1	36.2	36.3	36.3

<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 A19 Consumer Prices**

Per cent and percentage change, respectively

	Weight 2019	2017	2018	2019	2020	2021	2022	2023
<b>CPI</b>	<b>100</b>	<b>1.8</b>	<b>2.0</b>	<b>1.8</b>	<b>1.5</b>	<b>1.6</b>	<b>1.9</b>	<b>2.3</b>
Mortgage Interest Costs, Mortgage Interest Rate	...	-3.0	-4.9	2.0	-1.3	...	...	...
<b>CPIF</b>	<b>100</b>	<b>2.0</b>	<b>2.1</b>	<b>1.7</b>	<b>1.5</b>	<b>1.6</b>	<b>1.8</b>	<b>2.0</b>
Goods	44	0.4	0.6	1.0	0.9	...	...	...
Services	30	2.8	1.9	1.9	2.5	...	...	...
Housing Excl. Mortgage Interest Costs and Energy	15	1.4	1.8	2.0	1.7	...	...	...
Energy	7	5.8	10.5	3.3	-0.8	...	...	...
Mortgage Interest Costs, Capital Stock	3	9.4	7.1	5.8	5.2	...	...	...
<b>CPIF Excl. Energy</b>	<b>93</b>	<b>1.7</b>	<b>1.4</b>	<b>1.6</b>	<b>1.7</b>	<b>...</b>	<b>...</b>	<b>...</b>
HICP	...	1.9	2.0	1.7	1.4	...	...	...
Crude Oil (Brent) <sup>1</sup>	...	54.8	71.5	63.0	57.4	57.2	58.0	59.3

<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.

## Public Finances

**Table A20 General Government Finances**

SEK billion, current prices, and percentage of GDP, respectively

	2016	2017	2018	2019	2020	2021	2022	2023
<b>Revenue</b>	<b>2 194</b>	<b>2 295</b>	<b>2 393</b>	<b>2 448</b>	<b>2 501</b>	<b>2 577</b>	<b>2 666</b>	<b>2 764</b>
<i>Per cent of GDP</i>	49.7	49.7	49.5	48.8	48.6	48.4	48.3	48.4
Taxes and Duties	1 940	2 033	2 109	2 154	2 199	2 266	2 344	2 428
<i>Per cent of GDP</i>	43.9	44.0	43.6	42.9	42.7	42.6	42.5	42.5
<i>Tax-to-GDP Ratio<sup>1</sup></i>	44.1	44.1	43.8	43.1	42.9	42.7	42.6	42.6
Property Income	68	66	77	79	82	85	91	97
Other Revenue	186	196	208	214	220	226	232	239
<b>Expenditure</b>	<b>2 150</b>	<b>2 229</b>	<b>2 354</b>	<b>2 428</b>	<b>2 506</b>	<b>2 580</b>	<b>2 661</b>	<b>2 755</b>
<i>Per cent of GDP</i>	48.7	48.2	48.7	48.4	48.7	48.5	48.2	48.2
Consumption Expenditure	1 165	1 205	1 259	1 304	1 348	1 399	1 454	1 513
Transfers	767	787	827	848	873	889	905	928
Households	623	638	657	673	687	697	707	724
Corporations	84	83	91	93	96	99	102	106
Abroad	61	66	79	83	90	92	96	99
Capital Formation	187	208	236	243	253	258	263	271
Property Expenditure	31	30	33	32	33	34	38	43
<b>Technical Transfer to Households<sup>2</sup></b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>-3</b>	<b>-7</b>	<b>-8</b>
<b>Net Lending<sup>3</sup></b>	<b>44</b>	<b>66</b>	<b>39</b>	<b>20</b>	<b>-6</b>	<b>0</b>	<b>13</b>	<b>17</b>
<i>Per cent of GDP</i>	1.0	1.4	0.8	0.4	-0.1	0.0	0.2	0.3
<b>Primary Net Lending<sup>4</sup></b>	<b>7</b>	<b>30</b>	<b>-5</b>	<b>-27</b>	<b>-54</b>	<b>-52</b>	<b>-40</b>	<b>-37</b>
<i>Per cent of GDP</i>	0.2	0.6	-0.1	-0.5	-1.1	-1.0	-0.7	-0.6
<b>Structural Net Lending</b>	<b>13</b>	<b>24</b>	<b>-8</b>	<b>10</b>	<b>-1</b>	<b>7</b>	<b>18</b>	<b>19</b>
<i>Per cent of potential GDP</i>	0.3	0.5	-0.2	0.2	0.0	0.1	0.3	0.3
<b>Maastricht Debt</b>	<b>1 866</b>	<b>1 882</b>	<b>1 874</b>	<b>1 771</b>	<b>1 804</b>	<b>1 836</b>	<b>1 866</b>	<b>1 901</b>
<i>Per cent of GDP</i>	42.3	40.7	38.8	35.3	35.1	34.5	33.8	33.3
GDP, Current Prices	4 416	4 621	4 834	5 019	5 146	5 323	5 517	5 713
Potential GDP, Current Prices	4 381	4 566	4 758	4 976	5 147	5 330	5 518	5 713
Net Financial Wealth	923	1 117	1 172	1 339	1 361	1 414	1 481	1 555
<i>Per cent of GDP</i>	20.9	24.2	24.3	26.7	26.4	26.6	26.8	27.2

<sup>1</sup> The tax-to-GDP ratio is calculated by dividing total taxes, including EU taxes, by GDP. <sup>2</sup> Technical transfer to households in the form of changes to taxes and/or transfer payments. <sup>3</sup> Net lending is calculated as income minus the sum of expenses and transfers to households. <sup>4</sup> Primary net lending is calculated as net lending minus net capital. Net capital is capital income minus capital expenditures.

Sources: Statistics Sweden and NIER.

**Table A21 Central government finances**

SEK billion and percentage of GDP, respectively, current prices

	2016	2017	2018	2019	2020	2021	2022	2023
<b>Revenue</b>	<b>1 168</b>	<b>1 218</b>	<b>1 266</b>	<b>1 282</b>	<b>1 303</b>	<b>1 344</b>	<b>1 393</b>	<b>1 446</b>
Taxes and Duties	1 021	1 071	1 108	1 120	1 136	1 170	1 212	1 255
Property Income	24	22	29	29	29	31	35	38
Other Revenue	123	126	129	133	138	142	147	153
<b>Expenditure</b>	<b>1 105</b>	<b>1 143</b>	<b>1 201</b>	<b>1 223</b>	<b>1 263</b>	<b>1 286</b>	<b>1 314</b>	<b>1 352</b>
Transfers	678	710	746	756	779	786	795	811
Old-Age Pension System <sup>1</sup>	26	25	24	23	24	24	23	24
Local Government Sector	247	272	279	281	291	292	294	297
Households	299	301	310	315	319	320	322	330
Corporations	50	50	59	58	60	62	64	66
Abroad	57	62	75	79	85	88	91	94
Consumption Expenditure	308	310	320	329	338	350	362	376
Capital Formation	93	100	107	113	120	124	128	133
Property Expenditure	26	24	27	25	26	27	29	31
<i>Of which interest expenditure</i>	21	19	21	19	20	21	22	25
<b>Technical Transfer to Households<sup>2</sup></b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>25</b>	<b>46</b>	<b>70</b>
<b>Net Lending</b>	<b>63</b>	<b>75</b>	<b>66</b>	<b>59</b>	<b>40</b>	<b>32</b>	<b>33</b>	<b>24</b>
<i>Per cent of GDP</i>	1.4	1.6	1.4	1.2	0.8	0.6	0.6	0.4
Central Government Debt	1 292	1 265	1 197	1 052	1 040	1 032	1 026	1 029
<i>Per cent of GDP</i>	29.3	27.4	24.8	21.0	20.2	19.4	18.6	18.0
Net Financial Wealth	-363	-253	-136	-52	-27	30	88	137
<i>Per cent of GDP</i>	-8.2	-5.5	-2.8	-1.0	-0.5	0.6	1.6	2.4

<sup>1</sup> Central government's old-age pension contributions. <sup>2</sup> Technical transfer to households in the form of changes to taxes and/or transfer payments. In this table, central government grants to the local government sector are estimated on the basis of unchanged rules. If these grants turn out to be higher than with unchanged rules, the technical transfer from the central government sector to households will decrease correspondingly, at the same time as the technical transfer from local government to the households will increase correspondingly via smaller increases in local government taxes (or larger transfer payments). The total technical transfer from the general government sector to households, reported in Table A20, is not affected.

Sources: Statistics Sweden, National Debt Office and NIER.

**Table A22 Old-Age Pension System Finances**

SEK billion and percentage of GDP, respectively, current prices

	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>
<b>Revenue</b>	<b>295</b>	<b>303</b>	<b>317</b>	<b>330</b>	<b>340</b>	<b>349</b>	<b>360</b>	<b>373</b>
Social Insurance Contributions	234	245	256	267	275	283	293	304
Central Government's Old-Age Pension Contributions	26	25	24	23	24	24	23	24
Property Income	33	31	35	37	40	40	41	42
Other Revenue	2	2	2	2	2	2	2	2
<b>Expenditure</b>	<b>288</b>	<b>302</b>	<b>311</b>	<b>321</b>	<b>332</b>	<b>340</b>	<b>347</b>	<b>356</b>
Income Pensions	282	296	304	314	324	332	340	348
Property Expenditure	0	0	1	1	1	1	1	1
Other Expenses	6	6	6	6	7	7	7	7
<b>Net Lending</b>	<b>6</b>	<b>0</b>	<b>6</b>	<b>9</b>	<b>9</b>	<b>10</b>	<b>12</b>	<b>16</b>
<i>Per cent of GDP</i>	<i>0.1</i>	<i>0.0</i>	<i>0.1</i>	<i>0.2</i>	<i>0.2</i>	<i>0.2</i>	<i>0.2</i>	<i>0.3</i>
Net Financial Wealth	1 348	1 436	1 408	1 531	1 574	1 606	1 641	1 681
<i>Per cent of GDP</i>	<i>30.5</i>	<i>31.1</i>	<i>29.1</i>	<i>30.5</i>	<i>30.6</i>	<i>30.2</i>	<i>29.7</i>	<i>29.4</i>

Sources: Statistics Sweden and NIER.

**Table A23 Local government finances**

SEK billion and percentage of GDP, respectively, current prices

	2016	2017	2018	2019	2020	2021	2022	2023
<b>Revenue</b>	<b>1 015</b>	<b>1 080</b>	<b>1 121</b>	<b>1 149</b>	<b>1 182</b>	<b>1 208</b>	<b>1 240</b>	<b>1 277</b>
Taxes	670	700	726	748	770	793	819	848
Municipal Property Tax	16	17	18	18	19	19	20	21
Central Government Grants incl. VAT Compensation	241	267	274	280	289	290	292	295
Property Income	10	13	13	13	13	14	15	17
Other Revenue	77	83	89	89	91	92	93	96
<i>Average municipal tax rate<sup>1</sup></i>	<i>32.10</i>	<i>32.12</i>	<i>32.12</i>	<i>32.19</i>	<i>32.34</i>	<i>32.34</i>	<i>32.34</i>	<i>32.34</i>
<b>Expenditure</b>	<b>1 040</b>	<b>1 089</b>	<b>1 154</b>	<b>1 197</b>	<b>1 236</b>	<b>1 279</b>	<b>1 326</b>	<b>1 378</b>
Transfers	88	85	84	88	90	92	95	97
Households	43	43	44	45	46	47	48	48
Other	45	42	40	43	44	45	47	48
Consumption Expenditure	854	891	935	971	1 006	1 045	1 088	1 132
Capital Formation	94	108	129	131	133	134	135	138
Property Expenditure	5	5	5	6	7	7	9	12
<b>Technical Transfer to Households<sup>2</sup></b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>-28</b>	<b>-53</b>	<b>-78</b>
<b>Net Lending</b>	<b>-25</b>	<b>-10</b>	<b>-33</b>	<b>-48</b>	<b>-54</b>	<b>-43</b>	<b>-33</b>	<b>-23</b>
<i>Per cent of GDP</i>	<i>-0.6</i>	<i>-0.2</i>	<i>-0.7</i>	<i>-1.0</i>	<i>-1.1</i>	<i>-0.8</i>	<i>-0.6</i>	<i>-0.4</i>
Net Financial Wealth	-62	-66	-99	-140	-187	-222	-248	-263
<i>Per cent of GDP</i>	<i>-1.4</i>	<i>-1.4</i>	<i>-2.1</i>	<i>-2.8</i>	<i>-3.6</i>	<i>-4.2</i>	<i>-4.5</i>	<i>-4.6</i>

<sup>1</sup> Per cent. <sup>2</sup> Technical transfer to households in the form of changes to taxes and/or transfer payments. In this table, central government grants to the local government sector are estimated on the basis of unchanged rules. If these grants turn out to be higher than with unchanged rules, the technical transfer from the local government sector to households will increase accordingly via smaller increases in local government taxes (or larger transfer payments). Since the technical transfer from the central government sector to households will decrease correspondingly, the total technical transfer from the general government sector to households, reported in Table A20, is not affected.

Sources: Statistics Sweden and NIER.

**Table A24 General Government Revenue with Unchanged Tax Rules**

Per cent of GDP

	2016	2017	2018	2019	2020	2021	2022	2023
Direct Household Taxes	16.0	16.0	15.5	15.2	15.0	15.0	14.9	14.9
Direct Business Taxes	2.9	3.0	3.1	3.0	3.0	3.1	3.1	3.1
Employers' Social Contributions <sup>1</sup>	12.0	12.1	12.1	12.1	12.0	11.9	11.9	11.9
VAT	9.2	9.2	9.2	9.0	9.1	9.0	9.0	9.0
Excise	2.2	2.2	2.2	2.1	2.1	2.2	2.2	2.2
Other Taxes	1.8	1.7	1.7	1.7	1.6	1.6	1.6	1.6
<b>Tax-to-GDP Ratio<sup>2</sup></b>	<b>44.1</b>	<b>44.1</b>	<b>43.8</b>	<b>43.1</b>	<b>42.9</b>	<b>42.7</b>	<b>42.6</b>	<b>42.6</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>	4.2	4.2	4.3	4.3	4.3	4.2	4.2	4.2
<b>Primary Revenue</b>	<b>48.1</b>	<b>48.2</b>	<b>47.9</b>	<b>47.2</b>	<b>47.0</b>	<b>46.8</b>	<b>46.7</b>	<b>46.7</b>
Property Income	1.5	1.4	1.6	1.6	1.6	1.6	1.6	1.7
<b>Total Revenue</b>	<b>49.7</b>	<b>49.7</b>	<b>49.5</b>	<b>48.8</b>	<b>48.6</b>	<b>48.4</b>	<b>48.3</b>	<b>48.4</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.

Note. Refers to general government revenue with unchanged tax rules, that is, based on the current regulations.

Sources: Statistics Sweden and NIER.

**Table A25 General Government Expenditure**

Per cent of GDP

	2016	2017	2018	2019	2020	2021	2022	2023
Consumption Expenditure	26.4	26.1	26.0	26.0	26.2	26.3	26.4	26.5
Transfers	17.4	17.0	17.1	16.9	17.0	16.7	16.4	16.2
Households	14.1	13.8	13.6	13.4	13.4	13.1	12.8	12.7
Corporations	1.9	1.8	1.9	1.8	1.9	1.9	1.9	1.8
Abroad	1.4	1.4	1.6	1.7	1.7	1.7	1.7	1.7
Gross Fixed Capital Formation	4.2	4.5	4.9	4.8	4.9	4.9	4.8	4.7
Primary Expenditure	48.0	47.6	48.0	47.7	48.1	47.8	47.5	47.5
Property Expenditure	0.7	0.6	0.7	0.6	0.6	0.6	0.7	0.8
<b>Total Expenditure</b>	<b>48.7</b>	<b>48.2</b>	<b>48.7</b>	<b>48.4</b>	<b>48.7</b>	<b>48.5</b>	<b>48.2</b>	<b>48.2</b>

Note. Refers to general government expenditure with maintained personnel density in the provision of publicly funded welfare services and a historically motivated increase in standards

Sources: Statistics Sweden and NIER.

**Table A26 Transfers from General Government to Households**

Per cent of GDP

	2016	2017	2018	2019	2020	2021	2022	2023
Pensions <sup>1</sup>	7.7	7.7	7.5	7.5	7.5	7.4	7.3	7.2
Of Which Income Pension	6.3	6.4	6.3	6.2	6.3	6.2	6.1	6.1
Labour Market <sup>2</sup>	0.7	0.7	0.6	0.6	0.6	0.6	0.6	0.6
Illness and Disability <sup>3</sup>	1.8	1.7	1.6	1.5	1.4	1.4	1.3	1.3
Family and Children <sup>4</sup>	1.7	1.7	1.7	1.7	1.7	1.7	1.6	1.6
Education <sup>5</sup>	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
Social Assistance <sup>6</sup>	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
Other <sup>7</sup>	1.5	1.5	1.5	1.5	1.5	1.4	1.4	1.4
<b>Technical Transfer to Households</b>	<b>14.1</b>	<b>13.8</b>	<b>13.6</b>	<b>13.4</b>	<b>13.4</b>	<b>13.1</b>	<b>12.8</b>	<b>12.7</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.

Note. Refers to transfers from general government to households with unchanged regulations for transfers.

Sources: Statistics Sweden and NIER.

**Table A27 Income Index, Balance Index, Income Pensions and Balance Ratio**

Percentage change, unless otherwise indicated

	2016	2017	2018	2019	2020	2021	2022	2023
Income Index	2.0	3.7	1.5	3.1	3.4	2.8	2.7	2.8
Balance Index	5.9	4.4	2.6	3.1	3.4	2.8	2.7	2.8
Balance Ratio <sup>1, 2</sup>	1.038	1.007	1.013	1.035	1.051	1.047	1.033	...
<b>Nominal Income Pension<sup>3</sup></b>	<b>4.2</b>	<b>2.8</b>	<b>1.0</b>	<b>1.4</b>	<b>1.8</b>	<b>1.2</b>	<b>1.1</b>	<b>1.2</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 A28 Central Government Budget Balance and Debt**

SEK billion and percentage of GDP, respectively

	2016	2017	2018	2019	2020
<b>Budget Balance</b>	<b>85.3</b>	<b>61.8</b>	<b>80.0</b>	<b>106.0</b>	<b>-15.3</b>
Adjustments to Net Lending	18.2	4.9	12.7	-57.2	17.9
Sales of Shares etc.	-0.2	0.0	-1.7	0.0	0.0
Extra Dividends	-2.1	-0.1	-0.2	-1.0	0.0
On-Lending	27.8	11.9	17.8	-61.2	13.5
Other Adjustments	-7.2	-6.8	-3.2	5.0	4.4
Accruals	-44.7	11.3	-22.8	11.2	38.6
Of Which: Tax Accruals	-30.8	13.6	-17.0	13.4	31.8
Interest Accruals	-13.1	-3.2	-1.0	0.0	6.5
Other	3.8	-2.7	-4.1	-1.0	-1.1
<b>Central Government Net Lending</b>	<b>62.6</b>	<b>75.3</b>	<b>65.9</b>	<b>58.9</b>	<b>40.2</b>
Central Government Borrowing Requirement <sup>1</sup>	-85.3	-61.8	-80.0	-106.0	15.3
Stock-Flow Adjustments. Central Government Debt	25.0	35.0	11.9	-39.2	-26.8
Central Government Debt. Change	-60.3	-26.8	-68.2	-145.2	-11.5
<b>Central Government Debt</b>	<b>1 292</b>	<b>1 265</b>	<b>1 197</b>	<b>1 052</b>	<b>1 040</b>
<i>Per cent of GDP</i>	<i>29.3</i>	<i>27.4</i>	<i>24.8</i>	<i>21.0</i>	<i>20.2</i>

<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 A29 Central Government Expenditure Ceiling**

SEK billion unless otherwise indicated

	2016	2017	2018	2019	2020	2021
<b>Central Government Expenditure Ceiling</b>	<b>1 215</b>	<b>1 274</b>	<b>1 337</b>	<b>1 351</b>	<b>1 392</b>	<b>1 443</b>
<i>Per cent of Potential GDP</i>	<i>27.7</i>	<i>27.9</i>	<i>28.1</i>	<i>27.1</i>	<i>27.0</i>	<i>27.1</i>
Capped Expenditure	1 185	1 229	1 282	1 325	1 368	1 395
<i>Per cent of Potential GDP</i>	<i>27.0</i>	<i>26.9</i>	<i>26.9</i>	<i>26.6</i>	<i>26.6</i>	<i>26.2</i>
<b>Budgeting Margin</b>	<b>31</b>	<b>45</b>	<b>55</b>	<b>26</b>	<b>24</b>	<b>48</b>
<i>Per cent of Capped Expenditure</i>	<i>2.6</i>	<i>3.6</i>	<i>4.3</i>	<i>2.0</i>	<i>1.8</i>	<i>3.5</i>

Note. Refers to central government expenditure ceiling at nominally unchanged central government grants and unchanged regulations for transfers

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