

# The Swedish Economy

Summary. March 2013



National Institute of Economic Research





The Swedish Economy  
March 2013

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**THE NATIONAL INSTITUTE OF ECONOMIC RESEARCH (NIER)** prepares analyses and forecasts of the Swedish and international economy and conducts related research. The NIER is a government agency accountable to the Ministry of Finance and is funded largely by the Swedish government. Like other government agencies, the NIER has an independent status and is responsible for the assessments that it publishes.

**The Swedish Economy** contains analyses and forecasts of the Swedish and international economy. It is the English summary of the report in Swedish, **Konjunkturläget**.

There are also statistics in the form of outcome and forecast data for the development of the Swedish and international economy. See [www.konj.se/statistics](http://www.konj.se/statistics).

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# Summary

There was no growth in GDP at all in the fourth quarter of last year, but in recent months confidence has been improving at firms and among households. Recovery will take time, however, both in Sweden and elsewhere. Unemployment will remain just above 8 percent until the end of 2014. A stronger krona and modest pay increases will hold down inflation. Even so, the Riksbank is not expected to lower the repo rate this year, but to let it remain unchanged at 1 percent until early in 2015. Fiscal policy will be expansionary this year but will have to be tightened in the period ahead if the surplus target is to be achieved. In combination with a growing number of elderly people in the population, this will probably require tax increases.

## SIGNS OF IMPROVEMENT AFTER A WEAK ENDING TO 2012

GDP in Sweden stagnated in the fourth quarter of last year (see Diagram 1). However, the tendency was somewhat less weak than expected, and the confidence indicators in the Economic Tendency Survey have subsequently risen. The upturn is from a low level, and the aggregate Economic Tendency Survey indicator is still 5 units below its mean value, but the tendency nevertheless suggests that growth will be slightly stronger in the period ahead (see Diagram 1). After increasing by 0.8 percent last year, GDP will go up by 1.3 percent this year. This lacklustre growth means that demand for labour will increase more slowly than supply; unemployment will therefore rise a bit further in 2013.

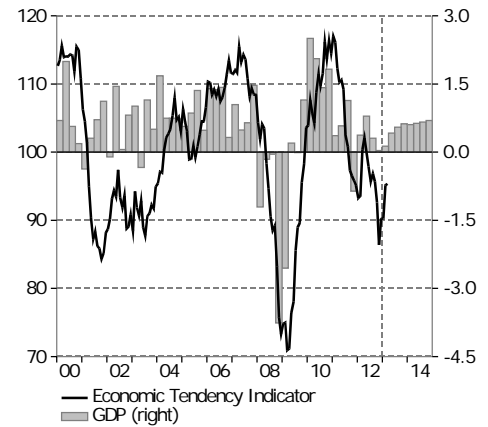
## INTERNATIONAL RECOVERY REMAINS SLUGGISH

GDP fell in the euro area and was unchanged in the United States in the final quarter of last year. The economic tendency indicators have shown an upturn since the autumn of 2002 but are still at low levels in most areas of the world (see Diagram 2). This suggests that growth will be subdued in the first half of 2013, but thereafter growth will be gradually higher. Fiscal policy will be tightened further in both the euro area and the US, curtailing the upswing in GDP growth.

In the euro area there are still many elements of uncertainty that limit the willingness of households and firms to invest. At press time for this report, it is still uncertain whether the efforts to provide a support package for Cyprus can be brought to a successful close. The proposal for a one-time tax on bank deposits understandably raises the question how far the deposit guarantees extend in other euro countries. If this concern takes hold, it may cause a new wave of financial turbulence in other European countries with shaky government finances, with negative consequences for the development of the real economy.

**Diagram 1 Economic Tendency Indicator and GDP**

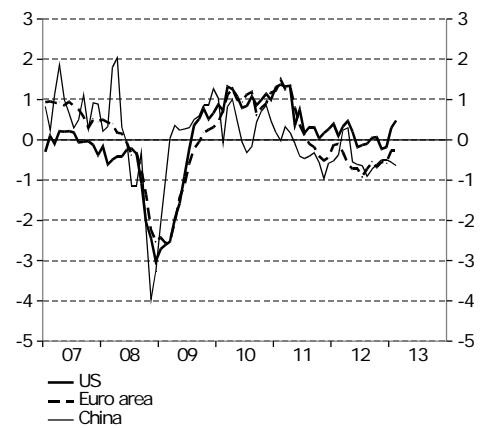
Index mean=100, monthly values and percentage change, seasonally adjusted quarterly values, respectively



Sources: Statistics Sweden and NIER.

**Diagram 2 Purchasing Manager Index in Manufacturing in US, Euro Area and China**

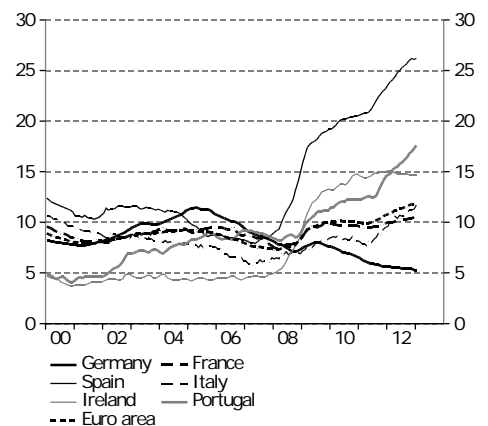
Standardized deviations from mean, seasonally adjusted monthly values



Sources: Institute for Supply Management, NTC Research Ltd and National Bureau of Statistics of China.

**Diagram 3 Unemployment in Selected Countries**

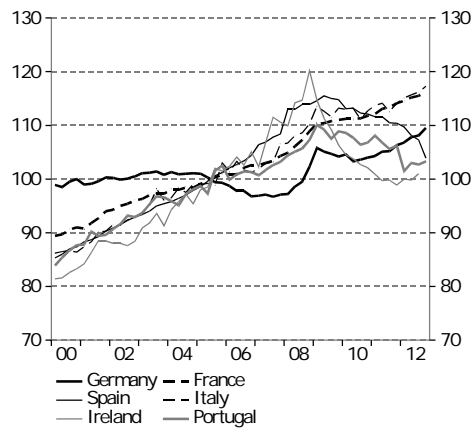
Percent of labour force, seasonally adjusted monthly values



Source: Eurostat.

**Diagram 4 Nominal Unit Labour Cost in Selected Countries**

Index 2005=100, seasonally adjusted quarterly values



Source: Eurostat.

GDP in the euro area will stop decreasing after the first quarter, but to increase only slowly for the rest of the year. Growth will be so weak that unemployment, which is already record high (see Diagram 3), is expected to continue rising somewhat during 2013.

In order to reduce unemployment in southern Europe, cost levels in those countries must be lowered compared to northern Europe and probably the rest of the world as well. During the period since the euro was introduced, unit labour costs have risen much faster in most other countries of the euro area than in Germany (see Diagram 4). After 2008, however, the tendency has been the reverse in most countries. Ireland, Spain, and Portugal have been able to lower their unit labour costs, while the rate of increase in Germany has gone up. In France and Italy, unit labour costs are no longer rising more rapidly than in Germany, but they probably need to fall relative to Germany in order to become competitive again. In a somewhat longer perspective, relative unit labour costs in all these countries are still considerably higher compared to Germany than in 2000. Many challenges remain before cost levels have been adjusted sufficiently and unemployment begins to drop in the hardest-hit countries.

#### RECOVERY CONTINUING IN THE UNITED STATES

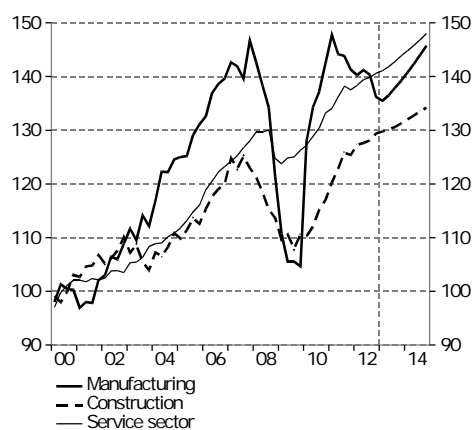
In the US, growth is stronger, and recovery continues despite a significantly tighter fiscal policy: tax increases equivalent to 1.25 percent of GDP at year-end and automatic expenditure reductions of 0.4 percent of GDP are to be implemented during the year. But the expansionary monetary policy will help housing construction to increase from a low level, and household consumption will grow more rapidly. Economic recovery will thus proceed. Unemployment, however, is still high and is not expected until 2015 to be down at the threshold level of 6.5 percent set by the Federal Reserve, the US central bank, as a condition for beginning to raise the federal funds (policy interest) rate.

#### LITTLE BOOST FOR THE SWEDISH ECONOMY FROM OTHER COUNTRIES

For Sweden, the slow recovery in other countries means that domestic demand will be more important as a driving force for the economy than in recent economic upturns. Exports, which were up by about 1 percent last year, will show the same lacklustre increase this year. This will curb manufacturing output, which decreased last year and remains below the levels before the financial crisis (see Diagram 5). Moreover, the spare production capacity is found primarily in manufacturing. It will not be put to use before 2014, when international demand and thus exports will begin to grow more rapidly.

**Diagram 5 Production volume in selected trades and industries**

Index 2000=100, seasonally adjusted quarterly values



Sources: Statistics Sweden and NIER.

With the weak tendency in manufacturing, investment in that sector will decrease this year, but recently households have become more optimistic about the development of the housing market, so that an upturn may come there very soon.

Domestic demand has shown a stronger tendency, thus helping production of housing and services to recover fully since the financial crisis, even if the levels at the end of 2012 will not fully reach their trend rate of increase. Growth in demand is being sustained this year by household consumption expenditure. The low inflation and increased pensions will contribute to a relatively large increase in real disposable incomes. At the same time, pessimism about the development of the economy has diminished, and the confidence indicator has risen nearly to its historical mean (see Diagram 6). Consumption is therefore expected to increase by 2.5 percent this year, which is the principal reason why GDP will increase by more than 1 percent this year.

#### DIFFICULT TO STIMULATE DOMESTIC DEMAND

Sweden's public finances are in good condition, but as in the other OECD countries, there are substantial demographic challenges.<sup>1</sup> Thus, there is not much of a fiscal policy margin for permanently stimulating domestic demand. Monetary policy has its limits, too, since the repo rate is already low. Household saving, on the other hand, is currently at a record high (see Diagram 7), so that the average household has a substantial margin for increased consumption. Some decrease in saving is probable when uncertainty about the development of the economy subsides and unemployment begins to drop; so-called precautionary saving will then decrease. But for domestic demand to keep driving recovery, household saving must continue to fall during 2015–2017. The distribution of saving among different age and income groups is skewed, and the demographic tendency of an increasingly large proportion of elderly persons, who normally save less, is also indicative of a downturn in the average saving ratio. But the decrease in the saving ratio may proceed more slowly than in the forecast. The level of saving in 2017, however, is not remarkably low by historical standards.

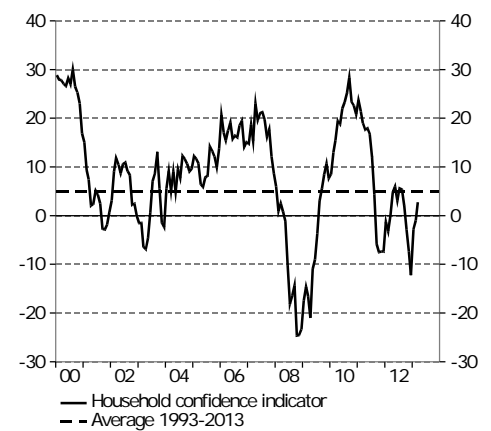
#### A STRONGER KRONA

The effective nominal rate of exchange as measured by the KIX is now almost as strong as before the fixed exchange rate was abandoned in November 1992 (see Diagram 8). The broad KIX index includes Sweden's 32 most important trading partners, some of which are emerging economies where the average inflation rate is higher than in Sweden. In some of these countries, there have been periods of extremely high inflation and rapid weakening of the nominal rate of exchange (for example, Mexi-

<sup>1</sup> See "Konjunkturinstitutets beräkning av långsiktig hållbarhet i de offentliga finanserna" ("The NIER's Estimate of the Long-Term Sustainability of Public Finances"), fördjupnings-pm (brief paper) no. 20, NIER, 2013.

**Diagram 6 Household Confidence Indicator, CCI**

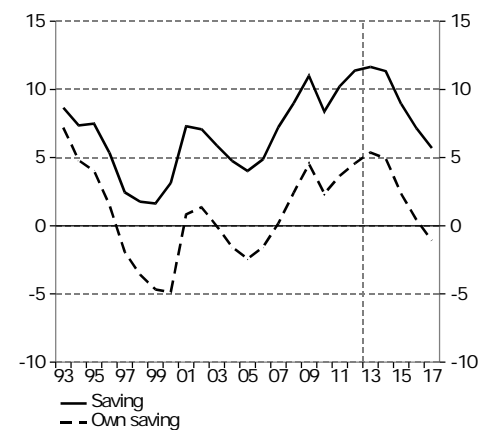
Net balances, monthly values



Source: NIER.

**Diagram 7 Household saving**

Percent of disposable income, current prices

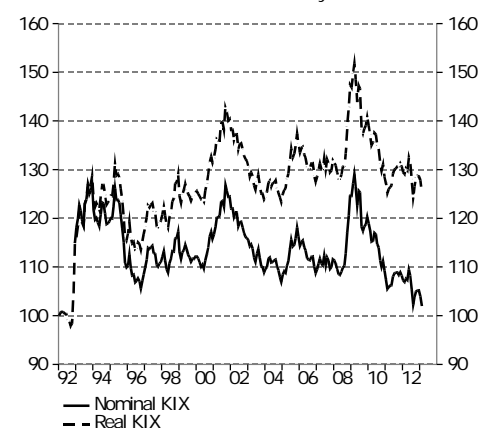


Note. Own saving excludes saving in negotiated pension funds and premium pensions.

Sources: Statistics Sweden and NIER.

**Diagram 8 Effective Exchange Rate of the Swedish Krona – KIX**

Index 1992-11-18=100, monthly values



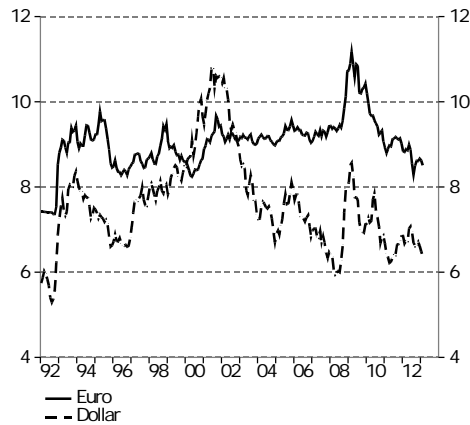
Note: A higher KIX index implies a weaker krona.

Sources: The Riksbank and NIER.



**Diagram 9 Exchange Rates**

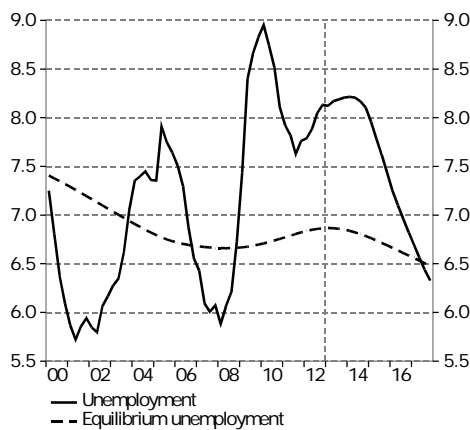
SEK per currency unit, monthly values



Sources: The Riksbank and NIER.

**Diagram 10 Unemployment and Equilibrium Unemployment**

Percent of labour force, seasonally adjusted quarterly values



Sources: Statistics Sweden and NIER.

**Diagram 11 Consumer Prices**

Annual percentage change, monthly values



Sources: Statistics Sweden and NIER.

co in 1995 and Turkey in 2001). Thus, the fact that the krona has strengthened in nominal terms compared to the currencies of these countries does not mean very much for competitiveness or purchasing power. The bilateral nominal exchange rate against the euro and the dollar, whose inflation has been more like our own, is still weaker than in 1992 (see Diagram 9).

In real terms the krona is still some 25 percent weaker than in 1992 compared to Sweden's 32 principal trading partners (see Diagram 8). The emerging economies have had, and will continue to have, higher productivity growth than in Sweden. The krona will therefore continue to depreciate in real terms against the currencies of these countries. However, this will take place primarily through more rapidly increasing prices in the emerging economies – in nominal terms, therefore, the KIX is not expected to change very much.

#### UNEMPLOYMENT TO LEVEL OUT JUST ABOVE 8 PERCENT

Unemployment has continued rising and is just over 8 percent, but there are now signs that the increase is slowing (see Diagram 10). However, there will be no clear downturn until early in 2015, and when unemployment has dropped to its estimated equilibrium level in 2017, Sweden will have had an abnormally high unemployment rate for over 8 years.

The weakness of the labour market will limit the rate of pay increases to just under 3 percent in 2013–2015. The pay negotiations currently in progress have not yet provided any indication of a significantly higher or lower rate of pay increases than in this assessment.

#### LOW PRICES OF IMPORTS RESULT IN LOW INFLATION

Inflation as measured by the CPIF has hovered around 1 percent since the end of 2011 and is showing no signs of an upward shift any time soon (see Diagram 11). At the end of 2013, a gradual upturn will begin as the effects of a stronger krona wear off and prices of imports show a stronger tendency. With rising resource utilization, inflation will gradually go up later on. As measured by the CPIF, however, inflation will not reach its target rate of 2 percent until 2016.

#### UNCHANGED REPO RATE DESPITE LOW INFLATION

A majority of the Riksbank's Executive Board have signaled clearly that they are not disposed to reduce the repo rate further given the current economic outlook, even though inflation is well below its target and unemployment shows no signs of decreasing in the year ahead. To judge by the pricing on the forward market, investors on financial markets believe that the repo rate will remain unchanged at 1 percent for roughly one year (see Diagram 12). With inflation not decreasing further in the near future and unemployment leveling out roughly according to the

Riksbank's latest forecast, the NIER's assessment is that the repo rate will most likely not be changed this year.

With the repo rate at its current level of 1 percent, monetary policy is expansionary and contributes to the recovery of the economy. According to the NIER's forecast, however, inflation will not rise as rapidly during 2014 as in the Riksbank's forecast, and the repo rate, in contrast to the Riksbank's forecast, will therefore be held unchanged in 2014 as well. Not until the spring of 2015, when the economy is clearly recovering and unemployment has been decreasing for some time, will a series of rate hikes begin. This interest rate policy is consistent with previous patterns in the 2000's.

The principal reason why the repo rate will not be lowered further this year thus seems to be that inflation, in the Riksbank's forecast, is expected to rise rapidly during 2014. The NIER does not share this view, nor do most other analysts, who foresee a lower inflation rate in 2014 and 2015. The expectations of households and firms for the inflation rate one year ahead are around 1 percent (see Diagram 13). Inflation expectations two years ahead, according to Prospera's latest survey, are 1.5 percent.

Another factor emphasized by the majority of the Riksbank's Executive Board is concern that the increasing indebtedness of households may lead to instability later on. The rate of increase in indebtedness, however, has slowed, and the NIER sees no obvious risk that it will increase in the near future. As with the forecast in December, it is the NIER's opinion that the Riksbank should follow an even more expansionary monetary policy that would lead inflation to the target more rapidly and help to reduce unemployment.

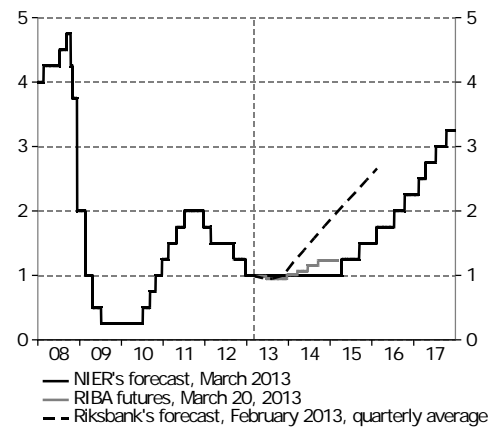
**DIFFICULT TO MEET SURPLUS TARGET**

Fiscal policy will be expansionary this year, which is appropriate given the current weak state of the economy. Cyclically adjusted net lending in general government is expected to be slightly below zero (see Diagram 14). In the forecast for 2014, fiscal policy is given a neutral stance; this is compatible with implementing unfunded measures totaling SEK 15 billion.<sup>2</sup> To meet the surplus target for general government net lending – average net lending of 1 percent of GDP over an economic cycle – it will be necessary to tighten fiscal policy in subsequent years. In an international perspective no comprehensive austerity measures are required, but the reforms that the Riksdag and the Government will implement must be fully financed.

During the period 2000–2008 the old-age pension system generated net lending equivalent to 1 percent of GDP. The surplus target for general government finances was then reached through balanced finances in central and local government. Now

**Diagram 12 Repo Rate**

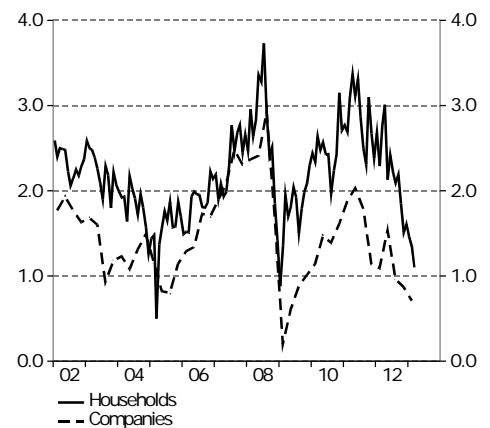
Percent, daily values and quarterly values, respectively



Sources: NASDAQOMX, The Riksbank and NIER.

**Diagram 13 Inflation Expectations, One Year Horizon**

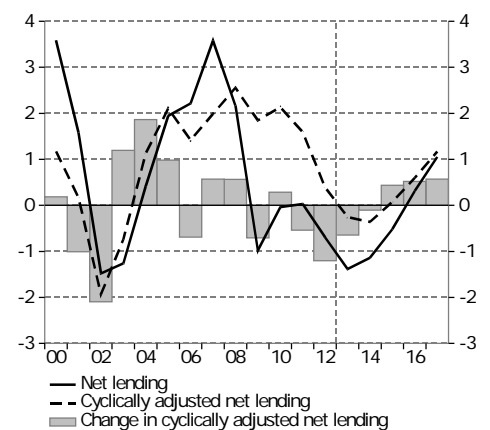
Percent, monthly and quarterly values, respectively



Source: NIER.

**Diagram 14 Net Lending and Cyclically Adjusted Net Lending, General Government Sector**

Percent of GDP and of potential GDP, respectively



Sources: Statistics Sweden and NIER.

<sup>2</sup> In the current situation, this forecast is highly uncertain. It is based on the NIER's interpretation of statements made by different representatives of the Government.

saving in the old-age pension system has fallen nearly to zero and is calculated to remain at that level for the next 5–10 years. This calls for stricter requirements for central government net lending in order to meet the surplus target (see the special analysis ”The Surplus Target for General Government Finances” in the chapter “Macroeconomic Development and Economic Policy 2013–2017”).

At the same time, the demographic trend, with a rapidly growing number of older people, puts pressure to increase appropriations for health and nursing care. One of the reasons for introducing the surplus target was to strengthen the net wealth position of the public sector in anticipation of the pressure for expenditure resulting from rising proportion of elderly people in the population. Sweden is now in a situation where demographic pressure for expenditure has begun to increase. It may therefore be appropriate to study whether the surplus target should be adjusted for the coming 10-year period.

#### **HEAVY PRESSURE FOR TAX INCREASES AFTER 2014**

The growing number of younger and older people in the population calls for increased capacity in schools, health care and nursing. With unchanged staffing intensity in these public services, with transfers to households in accordance with the development of hourly earnings, and with public sector investment growing at the same rate as GDP (which taken together can be said to constitute an unchanged public-sector commitment), there arises a financing need of SEK 66 billion through 2017 (see also the special analysis ”The NIER’s Assessment of the Scope for Reforms” in the chapter “Macroeconomic Development and Economic Policy 2013–2017”). In addition, there will be changes in central government interest expenditure and a need to increase net lending in order to meet the surplus target. If the public-sector commitment according to this definition is to be maintained while at the same time the surplus target is to be achieved and the macroeconomic development follows the NIER’s forecast, there will be a need for SEK 74 billion in additional revenue, i. e. tax increases as a practical matter.

However, the Government is considerably more optimistic about the macroeconomic development in the period ahead. In the forecast presented by the Minister for Finance in December, 2012, unemployment will be considerably lower and potential GDP through SEK 100 billion higher in 2017 than in the NIER’s current forecast. Tax revenue would then be roughly SEK 50 billion greater and the need for additional revenue correspondingly less. This macroeconomic development, however, is not very probable, according to the NIER. But if it nevertheless proves correct, then there would be no margin for tax cuts if the public commitment were unchanged, given that the surplus target is to be met. The latter is obviously a political question, and the Riksdag may well find it appropriate to reduce the

commitment somewhat. Even then, because of the demographic trend, the need for some additional resources would be virtually unavoidable and increases in revenue would be required.

**Table 1 Selected Indicators**

Percentage change unless otherwise stated

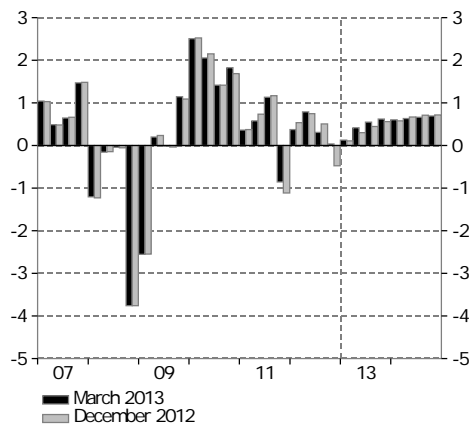
	2010	2011	2012	2013	2014	2015	2016	2017
GDP	6.6	3.7	0.8	1.3	2.3			
GDP, calendar-adjusted	6.3	3.7	1.2	1.3	2.4	3.0	3.1	2.6
Current account <sup>1</sup>	6.9	7.3	7.0	6.2	6.0	5.1	4.5	4.1
Hours worked <sup>2</sup>	2.0	2.4	0.6	0.2	0.6	1.1	1.2	1.0
Employment	0.6	2.3	0.7	0.5	0.4	1.0	1.2	1.0
Unemployment <sup>3</sup>	8.6	7.8	8.0	8.2	8.2	7.7	7.0	6.5
Labour market gap <sup>4</sup>	-2.6	-1.5	-1.6	-2.0	-1.9	-1.2	-0.5	0.0
Output gap <sup>5</sup>	-4.1	-2.0	-2.3	-2.7	-2.1	-1.1	-0.1	0.4
Hourly earnings <sup>6</sup>	2.6	2.4	3.1	2.8	2.7	2.8	2.9	3.1
Cost of labour, business sector <sup>2</sup>	0.1	2.9	3.2	3.0	2.8	2.9	3.0	3.2
Productivity, business sector <sup>2</sup>	5.0	2.4	1.2	1.3	2.3	2.2	2.3	2.0
CPI	1.2	3.0	0.9	0.2	1.1	1.9	2.4	2.9
CPIF	2.0	1.4	1.0	1.0	1.4	1.6	1.8	2.0
Repo rate <sup>7,8</sup>	1.25	1.75	1.00	1.00	1.00	1.50	2.25	3.25
Interest rate, 10-year government bond <sup>7</sup>	2.9	2.6	1.6	2.3	3.2	3.8	4.3	4.5
Index for the Swedish krona (KIX) <sup>9</sup>	114.3	107.6	106.1	101.7	102.2	103.2	103.0	102.7
GDP, world-wide	5.1	3.8	3.1	3.3	4.1	4.4	4.5	4.5
General government net lending <sup>1</sup>	0.0	0.0	-0.7	-1.4	-1.1	-0.5	0.3	1.1
Cyclically adjusted net lending <sup>10</sup>	2.1	1.6	0.4	-0.3	-0.4	0.1	0.6	1.2

<sup>1</sup> Percent of GDP. <sup>2</sup> Calendar-adjusted. <sup>3</sup> Percent of labour force. <sup>4</sup> Difference between actual and potential hours worked, in percent of potential hours worked. <sup>5</sup> Difference between actual and potential GDP, in percent of potential GDP. <sup>6</sup> According to Short-term Earnings Statistics. <sup>7</sup> Percent. <sup>8</sup> At year-end. <sup>9</sup> Index 1992–11–18=100. <sup>10</sup> Percent of potential GDP.

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

**Diagram 15 GDP**

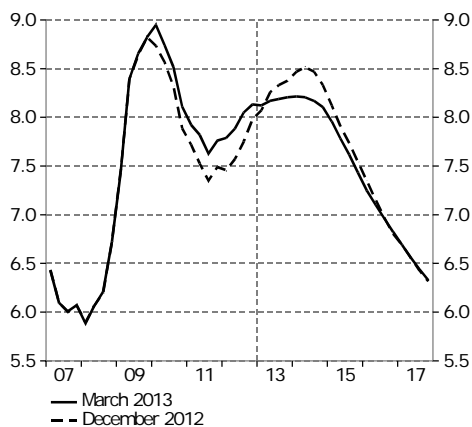
Percentage change, seasonally adjusted quarterly values



Sources: Statistics Sweden and NIER.

**Diagram 16 Unemployment**

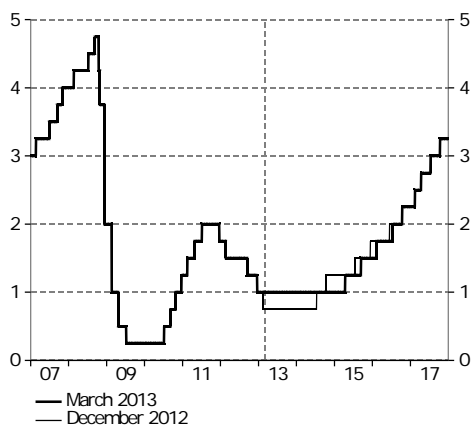
Percent of labour force, seasonally adjusted quarterly values



Sources: Statistics Sweden and NIER.

**Diagram 17 Repo Rate**

Percent, daily values



Sources: The Riksbank and NIER.

## Revisions in the Forecast for 2013–2014

This section describes in bullet form the principal revisions of the forecast published in *The Swedish Economy*, December 2012.

- Somewhat stronger GDP growth in 2013. The end of 2012 was somewhat stronger, and the quarterly growth in the second through fourth quarters of 2013 is also expected to be somewhat stronger (see Diagram 15).
- The higher growth in 2013 is based primarily on somewhat stronger growth in household consumption, but also in gross fixed capital formation.
- The forecast for GDP growth in 2014 is roughly unchanged. Slightly weaker growth in consumption is offset by a stronger increase in exports.
- A somewhat stronger tendency in employment, primarily at the outset of 2013, will mean a more limited upturn in unemployment than in the previous forecast (see Diagram 16). At the same time, Statistics Sweden has made upward revisions in the level of the outcome data for unemployment in 2010–2012.
- The exchange rate has strengthened more than expected, and the forecast for the next two years is slightly stronger.
- A somewhat higher price of oil and higher unit labour costs will offset the anti-inflationary effect of a stronger exchange rate. The forecast for CPI inflation is virtually unchanged.
- With the Riksbank's announcement, in combination with a lower rate of increase in unemployment than in the previous forecast, the forecast is now that the repo rate will not be lowered further (see Diagram 17).

**Table 2 Current Forecast and Revisions Compared to the December 2012 Forecast**

Percentage change unless otherwise stated

	2013		2014	
	March 2013	Diff.	March 2013	Diff.
<b>International</b>				
GDP, world-wide	3.3	-0.1	4.1	-0.1
GDP, OECD	1.3	-0.1	2.3	0.0
GDP, Euro Area	-0.4	-0.4	1.2	-0.2
GDP, United States	1.8	-0.1	2.7	0.0
GDP, China	8.1	-0.1	8.2	-0.4
Federal funds target rate <sup>1,2</sup>	0.25	0.00	0.25	-0.25
ECB refi rate <sup>1,2</sup>	0.75	0.00	0.75	0.00
Oil price <sup>3</sup>	109.3	3.6	107.0	2.4
CPI, OECD	1.9	0.0	2.0	0.1
<b>GDP by Expenditure</b>				
GDP, calendar-adjusted	1.3	0.5	2.4	0.1
GDP	1.3	0.5	2.3	0.1
Household consumption	2.5	0.6	2.7	-0.5
General government consumption	0.9	0.1	0.7	0.1
Gross fixed capital formation	1.3	0.6	3.7	0.1
Stockbuilding <sup>4</sup>	0.0	0.2	0.0	0.0
Exports	1.2	0.1	4.6	0.4
Imports	2.4	0.3	5.0	-0.2
<b>Labour Market, Inflation, Interest Rates etc.</b>				
Hours worked <sup>5</sup>	0.2	0.6	0.6	0.1
Employment	0.5	0.6	0.4	0.3
Unemployment <sup>6</sup>	8.2	-0.1	8.2	-0.3
Labour market gap <sup>7</sup>	-2.0	0.2	-1.9	0.3
Output gap <sup>8</sup>	-2.7	0.2	-2.1	0.2
Productivity, business sector <sup>5</sup>	1.3	-0.2	2.3	-0.1
Hourly earnings <sup>9</sup>	2.8	0.0	2.7	0.0
CPI	0.2	-0.2	1.1	-0.1
CPIF	1.0	0.1	1.4	0.0
Repo rate <sup>1,2</sup>	1.00	0.25	1.00	-0.25
Interest rate, 10-year government bond <sup>1</sup>	2.3	0.3	3.2	0.2
Index for the Swedish krona (KIX) <sup>10</sup>	101.7	-3.3	102.2	-1.4
Current account <sup>4</sup>	6.2	-0.2	6.0	0.0
General government net lending <sup>11</sup>	-1.4	-0.2	-1.1	0.0

<sup>1</sup> Percent. <sup>2</sup> At year-end. <sup>3</sup> Dollar per barrel, annual average. <sup>4</sup> Change in percent of GDP preceding year. <sup>5</sup> Calendar-adjusted.  
<sup>6</sup> Level, percent of labour force. <sup>7</sup> Difference between actual and potential hours worked, in percent of potential hours worked.  
<sup>8</sup> Difference between actual and potential GDP, in percent of potential GDP. <sup>9</sup> According to Short-term Earnings Statistics.  
<sup>10</sup> Index 1992-11-18=100. <sup>11</sup> Percent of GDP.

Note. The difference is between the current forecast and the December 2012 forecast. A positive value denotes an upward revision.



# Macroeconomic Development and Economic Policy 2013–2017

The development of GDP will be weak in the next few quarters, but the economy will enter an upturn in the second half of 2013. Not until the end of 2016, however, will resource utilization in the economy be normal. The sluggish recovery in the OECD area will be a factor in making domestic demand more important than normal for Sweden's recovery. Fiscal policy will have an expansionary stance in 2013. In the NIER's analysis, fiscal policy will be virtually neutral next year. But since cyclically adjusted net lending will be negative in 2014, a tighter fiscal policy 2015–2017 will be necessary for meeting the surplus target. With the low level of resource utilization, low inflation and low interest rates in other countries, the Riksbank will not raise the repo rate until 2015.

This chapter first provides a general presentation of the NIER's forecast for the development of the international and Swedish economy in 2013–2017. It then describes the forecast for monetary and fiscal policy more thoroughly. For a more detailed description of developments in 2013–2014, the reader is referred to the summary.

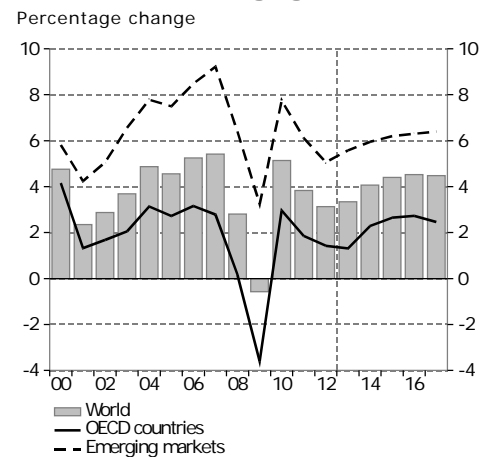
## International Development

### SLOW GLOBAL RECOVERY AND CONTINUED EXPANSIONARY MONETARY POLICY

Global growth has fallen in recent years, with a weak ending for 2012, particularly in the OECD countries. The assessment, however, is that the international economy will enter an upturn in the second half of this year and that recovery will continue in 2014–2017 (see Diagram 18).

The margin for further economic policy stimulus is limited, particularly for fiscal policy. The principal factors underlying the approaching economic recovery are pent-up demand after several years of restrained development, together with an expansionary monetary policy. In the OECD countries, resource utilization is low to begin with, and the potential for recovery is thus considerable (see Diagram 19). As political and institutional solutions to the debt crisis that has arisen are put in place and the consolidation aimed at more balanced debt levels advances, the confidence of households and firms will strengthen. In the OECD countries household consumption will increase somewhat faster in 2014–2017 than in recent years. But it is primarily investment growth that will be rising. After a long period of lacklustre investment, there is a pent-up need both for replacing outdated and worn-out capital and for new investment. In the

**Diagram 18 GDP World-wide, in OECD Countries and Emerging Markets**



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

Sources: OECD, IMF and NIER.

**Diagram 19 Output Gap in OECD**



Sources: National sources and NIER.



OECD countries, GDP growth will rise to about 2.5 percent per year in 2014–2017 (see Diagram 18).

In most growth economies, the quantity of spare resources is not as great, and the margin for rising growth thus somewhat less. However, at over 6 percent per year, growth in the emerging economies will continue to be much higher than in the OECD countries in 2014–2017 (see Table 3).

**Table 3 GDP and CPI World-wide**

Percentage change

	2012	2013	2014	2015	2016	2017
GDP, OECD	1.4	1.3	2.3	2.6	2.7	2.5
GDP, emerging markets <sup>1</sup>	5.1	5.6	5.9	6.2	6.3	6.4
GDP, world-wide	3.1	3.3	4.1	4.4	4.5	4.5
CPI, OECD	2.2	1.9	2.0	2.0	2.1	2.2
CPI, world-wide	3.9	3.7	3.7	3.7	3.6	3.6

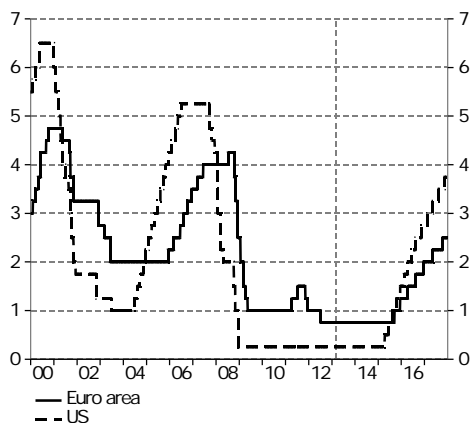
<sup>1</sup> The term emerging markets here denotes all non-OECD member countries.

Note. GDP figures are calendar-adjusted and in constant prices. Aggregates are calculated using purchasing-power adjusted GDP weights from the IMF.

Sources: IMF, OECD and NIER.

**Diagram 20 Policy Rates**

Percent, daily values



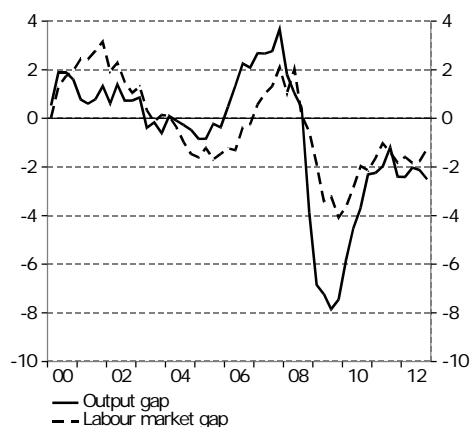
Sources: ECB, Federal Reserve and NIER.

Worldwide recovery is proceeding sluggishly compared to previous economic recoveries. The continuing debt problems in the OECD countries have led to restraint with the aim of strengthening balance sheets in the private and public sectors. This will have a dampening effect on demand in the next few years.

Since the economy is recovering so slowly, global resource utilization will remain low. This means that the development of world-wide prices will be subdued, not least in many OECD countries. Consequently, central banks in the OECD area can continue to support demand through an expansionary monetary policy in the next few years (see Diagram 20).

**Diagram 21 Output Gap and Labour Market Gap**

Percent of potential GDP and of potential hours worked, respectively, seasonally adjusted quarterly values



Source: NIER.

## Developments in Sweden

### CONTINUED RECESSION

In Sweden the recession has entered its fifth year. After the sharp drop in demand in connection with the financial crisis of 2008/2009, the economy is still far from full resource utilization despite the quick recovery in 2010. Since then the so-called output gap has hovered around -2 percent of potential GDP (see Diagram 21). This means that output would have been 2 percent higher with normal resource utilization. The principal reason why the Swedish recession has been so prolonged is the European debt crisis. Since the spring of 2010, the crisis in the euro area has led to unrest on financial markets, a weak macroeconomic development and sweeping fiscal austerity measures, primarily in southern Europe. An aggregate effect has been that

demand for Swedish exports of goods has been and still is unusually low. Uncertainty about the resolution of the crisis has also contributed to the lacklustre development of domestic demand since Swedish households and firms have been holding back on consumption and investment.

#### SLUGGISH DEVELOPMENT OF POTENTIAL GDP 2013–2017

In the next few years, growth in potential output, or the level of output that would be achieved with normal utilization of labour and real capital, will be lower than during the period 1980–2012, when potential output grew by an average of 2.3 percent per year (see Table 4). Underlying the weak tendency is a slow rate of increase in productivity and slackening growth in the potential labour force (see the special analysis "Updated View of Potential Output and Employment" in this chapter).

**Table 4 Potential Variables**

Percentage change unless otherwise stated

	2012	2013	2014	2015	2016	2017
Potential GDP	1.5	1.7	1.8	2.0	2.1	2.1
Potential hours worked	0.8	0.5	0.5	0.5	0.5	0.5
Of which potential employment	0.7	0.6	0.5	0.5	0.5	0.4
Of which demographic contribution	0.4	0.4	0.4	0.4	0.3	0.3
Potential productivity	0.8	1.2	1.3	1.4	1.6	1.6
Potential productivity, business sector	1.5	1.5	1.6	1.8	2.1	2.1

Note. The calculations are calendar-adjusted.

Sources: Statistics Sweden and NIER.

#### RECOVERY TO BEGIN IN THE SECOND HALF OF 2013

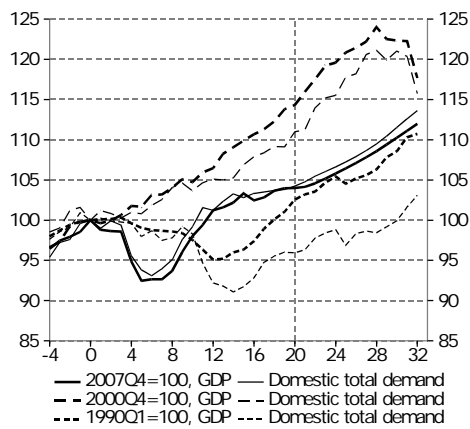
In the first half of 2013, the tendency in demand will still be weak. As before, the principal cause will be continued low growth in other countries, but domestic demand will also be growing slowly during the first two quarters of this year.

Growth in demand will be curtailed in the immediate future primarily by fiscal austerity measures in other countries and continued uncertainty about the manner in which the euro crisis will be resolved. In NIER's assessment, however, the uncertainty will diminish during the current year. As this happens, the Swedish economy will be well prepared for recovery. Household saving is high to begin with, thus permitting consumption to increase as uncertainty subsides. With low capacity utilization, output can also increase rapidly. The lacklustre resource utilization at the outset, however, means that recovery will take a long time, but also that output can grow faster than potential output for several years in a row.

The weak international tendency means that domestic demand will have to drive recovery to a greater extent than in pre-

**Diagram 22 GDP and Domestic Total Demand**

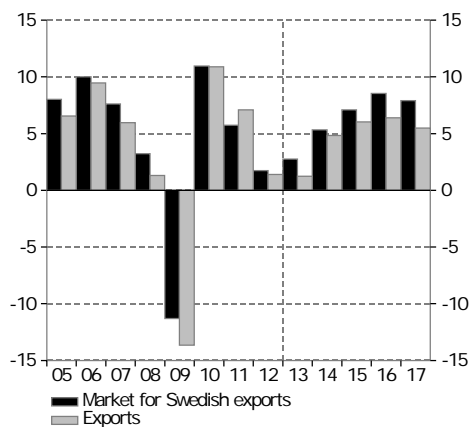
Index quarter 0=100, see explanation below



Note: The X axis refers to quarters. The date 0 is the last quarter before GDP started to fall. The forecast line applies to the current cycle.  
Sources: Statistics Sweden and NIER.

**Diagram 23 Swedish Export Market and Exports**

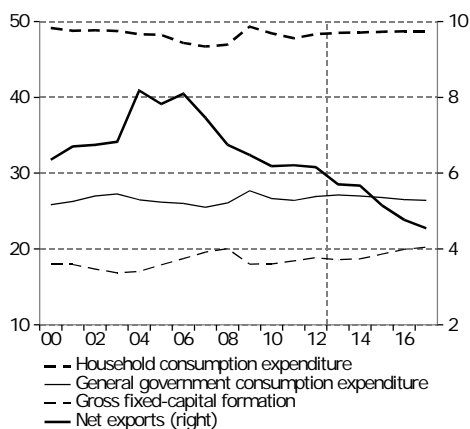
Percentage change



Sources: IMF, OECD, Statistics Sweden and NIER.

**Diagram 24 Shares of GDP**

Percent of GDP, current prices



Sources: Statistics Sweden and NIER.

vious recoveries, with the result that recovery will take more time. In the recoveries after the Swedish crisis of the 1990's and the economic downturn in connection with the IT crash at the outset of the 2000's, GDP grew more rapidly than domestic demand; in other words, GDP growth was driven to a comparatively large extent by exports (see Diagram 22). In the period ahead, by contrast, domestic demand is expected to grow faster than GDP. To support this development, monetary policy will need to be expansionary. But it might prove difficult to stimulate domestic demand sufficiently. If so, recovery will take even more time.

**NET EXPORTS FALLING AS A SHARE OF GDP**

With the low growth in other countries in the period ahead, the global market for Swedish exporting firms will be growing comparatively slowly (see Diagram 23). This will be a factor in the slow growth of Sweden's exports, only 1.2 percent, in 2013 (see Table 5).<sup>3</sup> In the years thereafter, exports will increase much faster but still not keep up with the growth of the market for Swedish exports. One factor governing the development of Sweden's net exports is that Sweden for demographic reasons has a decreasing need for net saving in relation to other countries. In the last two decades the proportion of the working-age population in the total population has been increasing. This age group saves more than younger and older people. In the near future, the population structure will be changing so that the proportion of younger and older persons will be increasing. Household saving will then be lower, suggesting that Sweden's net saving in relation to other countries will decrease in the period ahead. Net exports will thus continue to fall as a share of GDP (see Diagram 24). Lower Swedish net exports also play a part in decreasing global imbalances. Several countries in southern Europe, but also in the US, have long had deficits in foreign trade and need to strengthen their net exports.

**CONSUMPTION AND INVESTMENT TO DRIVE RECOVERY**

Growth in household consumption was only 1.7 percent in 2012. This outcome was due to continued high precautionary saving, which is largely explainable by the uncertainty over how the euro crisis will affect the Swedish economy. Toward the end of 2012, however, growth in household consumption expenditure increased. This marks the beginning of a period of higher growth in household consumption expenditure. In 2013, though, the upswing will be curbed by rising unemployment. For the full year 2013, consumption will grow by 2.5 percent. Thereafter the growth rates will be higher; household consumption will increase by an average of almost 3 percent per year in 2014–2017. This means that growth in consumption per capita will be

<sup>3</sup> All figures in this section are calendar-adjusted unless otherwise indicated.

high during these years, and in 2017 it will be close to the average for the latest 30-year period (see Diagram 25).

There are several reasons for the strong growth in consumption. First, the saving ratio is high to begin with, enabling households to increase their consumption (see Diagram 26). Second, recovery in household consumption expenditure will be stimulated by low interest rates (see the section "Monetary Policy and Exchange Rates" in this chapter). But fiscal policy will be contractionary in 2015–2017, curtailing household consumption somewhat (see the section "Fiscal Policy" in this chapter).

General government consumption will increase by an annual average of 1.1 percent in 2013–2017. Growth in general government consumption will be higher toward the end of the period, partly because of the demographic tendency, described above, which will increase the need for public services, and partly because local government finances will improve as the economy strengthens. Beginning in 2015, general government consumption will grow 0.4 percentage point faster than the demographically determined need.<sup>4</sup> This is somewhat below the average improvement of 0.6 percentage point in standard-of-service in 1995–2012 in addition to the demographically determined need, and it will be achieved in part through improved productivity of public authorities (see also the special analysis "Updated View of Potential Output and Employment" in this chapter).

**Table 5 GDP by Expenditure**

Percentage change, constant prices, calendar-adjusted values

	2012	2013	2014	2015	2016	2017
Household consumption expenditure	1.7	2.5	2.7	3.3	3.2	2.5
General government consumption expenditure	1.3	1.0	0.9	1.1	1.2	1.4
Gross fixed capital formation	4.0	1.3	3.8	6.9	6.9	4.7
Final domestic demand	2.0	1.8	2.4	3.4	3.4	2.7
Stockbuilding <sup>1</sup>	-1.1	0.0	0.0	0.0	0.0	0.0
Total domestic demand	0.8	1.9	2.5	3.4	3.4	2.7
Exports	1.4	1.2	4.8	6.0	6.4	5.5
Total demand	1.0	1.6	3.3	4.4	4.5	3.7
Imports	0.6	2.4	5.2	7.4	7.4	6.0
Net exports <sup>1</sup>	0.4	-0.4	0.1	-0.3	-0.1	0.1
<b>GDP</b>	<b>1.2</b>	<b>1.3</b>	<b>2.4</b>	<b>3.0</b>	<b>3.1</b>	<b>2.6</b>

<sup>1</sup> Change in percent of GDP preceding year.

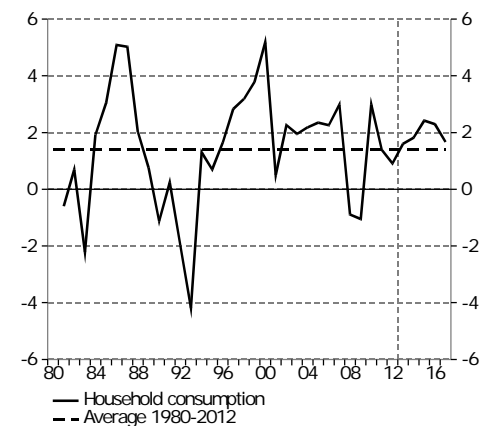
Sources: Statistics Sweden and NIER.

Investment dropped sharply in 2009 and recovered somewhat during 2010–2012 (see Diagram 27). This is a normal cyclical pattern, since investment varies much more than household

<sup>4</sup> For a more detailed description of the calculations, see "Konjunkturinstitutets beräkning av långsiktig hållbarhet i de offentliga finanserna" ("The NIER's Estimate of the Long-Term Sustainability of Public Finances"), fördjupnings-pm (brief paper) no. 20, NIER, 2013.

**Diagram 25 Household Consumption per Capita**

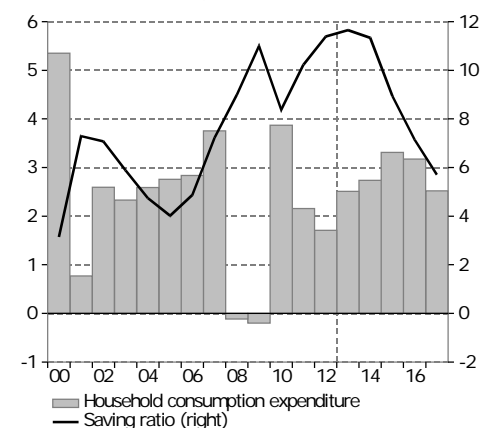
Percentage change



Sources: Statistics Sweden and NIER.

**Diagram 26 Household Consumption and Saving Ratio**

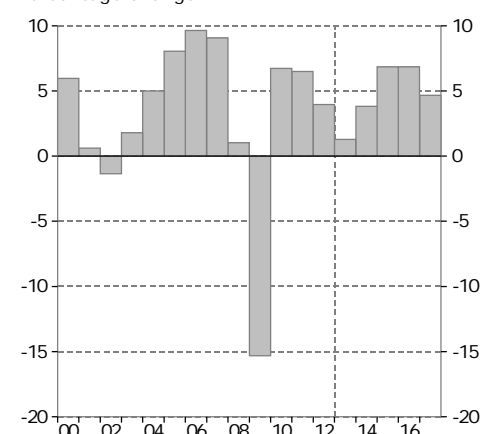
Percentage change and percent of disposable income, respectively



Sources: Statistics Sweden and NIER.

**Diagram 27 Gross Fixed Capital Formation**

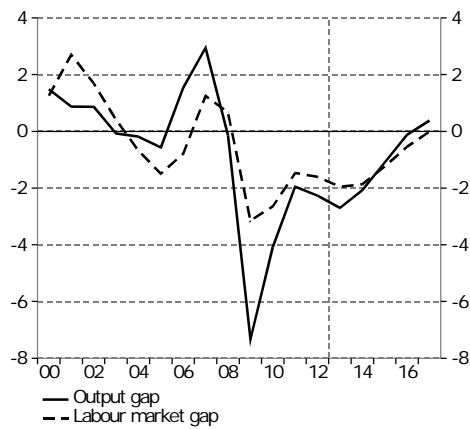
Percentage change



Sources: Statistics Sweden and NIER.

**Diagram 28 Output Gap and Labour Market Gap**

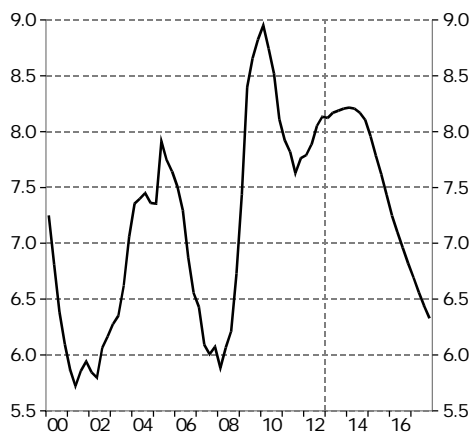
Percent of potential GDP and of potential hours worked, respectively



Source: NIER.

**Diagram 29 Unemployment**

Percent of labour force, seasonally adjusted quarterly values



Sources: Statistics Sweden and NIER.

consumption, for example, over an economic cycle. Despite a relatively high rate of growth in investment, particularly in 2010 and 2011, investment as a share of GDP was only 18.8 percent in 2012 (see Diagram 24). This year investment will again be rising slowly, and investment as a share of GDP will fall somewhat. When the uncertainty subsides during the current year, there will consequently be a need for increased investment. In the NIER's assessment, investment will be equivalent to approximately 20 percent of GDP in the long run. Since the investment share will be only 18.6 percent of GDP in 2013, there will be a need to increase the rate of investment in the period ahead. From 2014 to 2017, therefore, investment will increase by some 4–7 percent per year (see Diagram 27).

All factors considered, this means that GDP growth will gradually increase to about 3 percent in 2015–2016. But recovery will take a long time since resource utilization will be so low when the economy reaches a turning point. Not until 2016 will resource utilization, as measured by the output gap, be roughly in balance (see Diagram 28).

#### **NO DOWNTURN IN UNEMPLOYMENT UNTIL 2014**

The number employed increased during 2012, but unemployment rose nonetheless because of a relatively substantial increase in the labour force (see Diagram 29). For the full year 2012, unemployment averaged 8.0 percent, more than 1 percentage point higher than the NIER's assessment of equilibrium unemployment this year. There will be a slight continued rise in unemployment this year, due initially to a weak tendency in demand. But although actual GDP growth will exceed potential GDP growth beginning in the second half of this year, unemployment will not start to decrease until the end of next year. This is a normal cyclical pattern on the labour market. When demand begins to recover toward the end of the current year, firms will initially increase output primarily through more efficient use of existing personnel. Hiring will not pick up until resource utilization at firms has been normalized, and unemployment will begin slowly to decrease starting at the end of next year. Recovery on the labour market will take a long time. Not until 2017, when unemployment will be 6.5 percent, will cyclical balance return to the labour market; in other words, the labour market gap will close that year (see Diagram 28 and Table 6).

**Table 6 Labour Market**

Percentage change

	2012	2013	2014	2015	2016	2017
Hours worked <sup>1</sup>	0.6	0.2	0.6	1.1	1.2	1.0
Employment	0.7	0.5	0.4	1.0	1.2	1.0
Labour force	0.9	0.7	0.4	0.5	0.4	0.4
Unemployment <sup>2</sup>	8.0	8.2	8.2	7.7	7.0	6.5

<sup>1</sup> Calendar-adjusted. <sup>2</sup> Percent of labour force.

Sources: Statistics Sweden and NIER.

**RATE OF PAY INCREASES DROPPING TO A LOWER LEVEL**

Earnings in the business sector increased by about 2.5 percent per year in 2010 and 2011. This is less than the average of 3.4 percent for the period 2000–2010. For 2012, it is estimated that pay increases in the business sector will have been 3.3 percent. This year and next year, the rate of pay increases will drop to a lower level (see Diagram 30). This lacklustre development is partly explainable by low resource utilization and slow growth in potential productivity. Another factor that will hold back growth in earnings in the period ahead is the weak profit situation of firms. This year the profit share of firms, or the operating surplus as a share of total value added, will fall below 39 percent, which is lower than the average since 1980. Relatively low pay increases and initially rising capacity utilization will mean that the profit share will be slowly rising from and including next year until 2017.

**Table 7 Wages and Prices**

Percentage change

	2012	2013	2014	2015	2016	2017
Hourly earnings <sup>1</sup>	3.1	2.8	2.7	2.8	2.9	3.1
Hourly earnings, business sector <sup>1</sup>	3.3	2.7	2.7	2.8	2.9	3.1
Unit labour cost, business sector	2.3	1.9	0.5	0.7	0.6	1.2
CPI	0.9	0.2	1.1	1.9	2.4	2.9
CPIF	1.0	1.1	1.4	1.6	1.8	2.0

<sup>1</sup> According to Short-term Earnings Statistics.

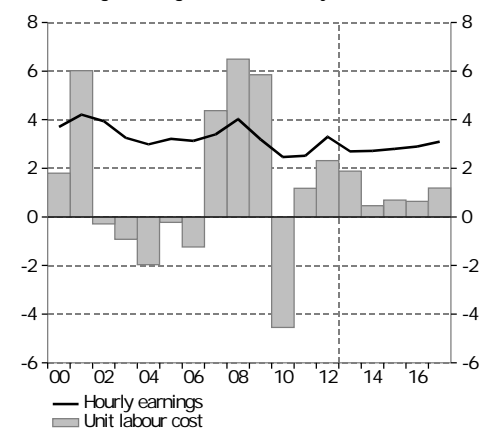
Sources: National Mediation Office, Statistics Sweden and NIER.

**LOW INFLATION FOR THE NEXT FEW YEARS**

Inflation as measured by the CPIF, that is, the CPI with a constant mortgage interest rate, has remained below the Riksbank's inflation target of 2 percent since 2010 (see Diagram 31). In the future as well, the rate of increase in consumer prices will be modest because of low resource utilization, one effect of which is to hold down pay increases. Firms will thus be able to improve their profits somewhat from 2014 on despite modest price increases. Not until around 2017 will inflation in terms of the

**Diagram 30 Hourly Earnings and Unit Labour Cost, Business Sector**

Percentage change, calendar-adjusted values



Sources: Statistics Sweden, National Mediation Office and NIER.

**Diagram 31 Consumer Prices**

Percentage change



Sources: Statistics Sweden and NIER.

CPIF reach 2 percent (see Table 7). Since the Riksbank will raise the repo rate in 2015, home mortgage interest rates will increase (see the section "Monetary Policy and Exchange Rates" in this chapter). This will contribute to an increase in inflation as measured by the CPI, which is affected by mortgage interest rates, so that it exceeds 2 percent in 2016–2017.

## Monetary Policy and Exchange Rates

### RIKSBANK TO LEAVE THE REPO RATE UNCHANGED FOR AN EXTENDED PERIOD

The Riksbank decided to leave the repo rate unchanged at 1 percent at their monetary policy meeting in February. At the same time, the Riksbank's forecast for the repo rate was adjusted downward marginally and means that the first increase in the repo rate will not come until the first quarter of 2014. The pricing of forward contracts for the repo rate indicates that investors are expecting the rate to be unchanged during 2013 (see Diagram 32).

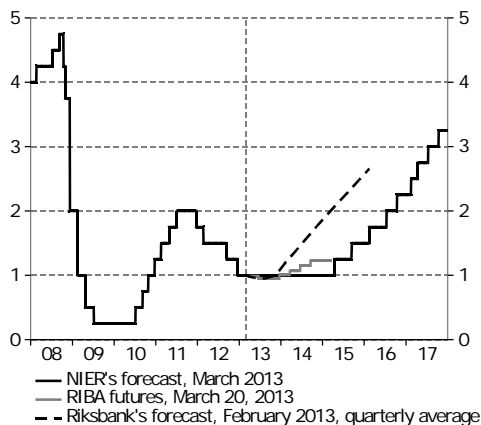
With the weak state of the economy in many OECD countries, the tendency of international prices has been slack in recent years. In combination with a strengthening of the krona, this has had a dampening effect on prices of Swedish imports. Moreover, the weak demand situation has made it harder for Swedish firms to pass on cost increases to consumers. The aggregate effect has been low inflation. The prolonged recovery of demand means that the quantity of unused resources in Sweden remains considerable. This has a dampening effect on the development of earnings, and together with low prices of imports will contribute to continued low inflation.

The Riksbank could lower the repo rate further for the purpose of speeding up the recovery of the Swedish economy without risk of high inflation.<sup>5</sup> The Riksbank's announcement, however, suggests that a majority of its Executive Board continue to attach special importance to financial stability in their monetary policy decisions. In view of the development of household debt and housing prices, the majority of the Executive Board hold that an excessively low interest rate may increase the risk of financial imbalances, which would allegedly make it more difficult to meet monetary policy targets beyond the Riksbank's forecasting horizon.

All factors considered, the NIER assumes that the Riksbank will leave the repo rate unchanged through the second quarter of 2015, when a period of interest rate increases will begin. There is a price to be paid for not pursuing a more expansionary monetary policy: lower inflation and higher unemployment in coming

**Diagram 32 Repo Rate**

Percent, daily values and quarterly values, respectively



Sources: NASDAQOMX, Riksbanken och Konjunkturinstitutet.

<sup>5</sup> See the special analysis "An Even Lower Repo Rate Should Be Considered," *The Swedish Economy*, December 2012, NIER.

years (see the section “Developments in Sweden” in this chapter).

#### MONETARY POLICY TO REMAIN EXPANSIONARY IN 2014–2017

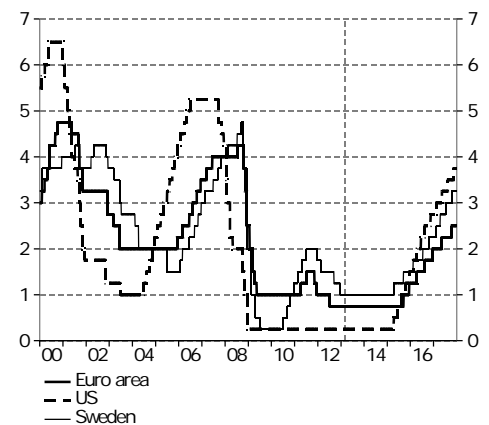
An expansionary monetary policy will help the Swedish economy to begin recovering in the second half of 2013. The prolonged recovery, however, will mean that monetary policy can remain expansionary for an extended time. To avoid overly high resource utilization later on and an inflation rate that exceeds the target, the Riksbank will raise the repo rate gradually beginning in the second quarter of 2015. The forecast development means that resource utilization in the economy as a whole will be in balance in the latter part of 2016. At this point the repo rate will still be at a level below what has historically been considered compatible with balanced resource utilization. The reason is that interest rates in other countries will still be very low, and that a higher rate in Sweden could therefore give rise to a stronger exchange rate, which in turn could delay recovery and dampen inflation to an undesirably high degree. The Riksbank will thereafter raise the repo rate to 3.25 percent at the end of 2017 (see Diagram 33).

#### VERY LOW INTEREST RATES ON GOVERNMENT BONDS

The weak tendency in recent years and the uncertain economic climate have meant that investors on financial markets have sought to transfer their investments from riskier assets to assets that they have considered safer. Moreover, the bigger central banks have purchased government bonds on a large scale. In combination with low policy interest rates in several major economies, this has meant that interest rates on government bonds have fallen in many countries to levels that are extremely low by historical standards. A seemingly higher risk appetite on financial markets at the outset of 2013 has contributed to rising interest rates on government bonds in countries such as Sweden, the US, the UK and Germany. An orderly resolution of the debt crisis in the euro zone will probably contribute to continued normalization of risk appetite and help reduce demand for safer, more liquid investments. When recovery also in the longer run entails a less expansionary monetary policy, with interest rate increases in many countries, short-term interest rates will begin rising. All factors considered, this means that interest rates on long-term government bonds will increase in the next few years, with the rate on Swedish 10-year government bonds gradually rising to 3.2 percent in 2014 and further to 4.5 percent in 2017 (see Diagram 34 and Table 8).

**Diagram 33 Policy Rates**

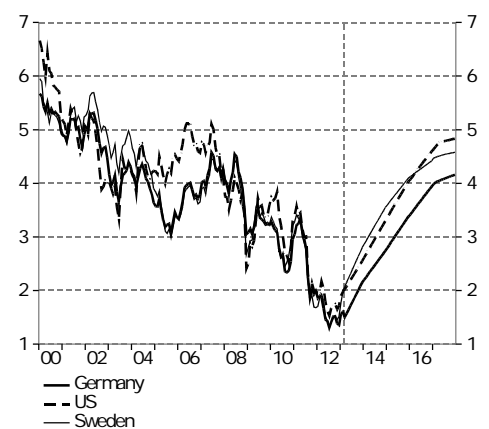
Percent, daily values



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

**Diagram 34 Government Bond Interest Rates**

Percent



Note: 10-year maturity.

Sources: National sources and NIER.



**Diagram 35 Effective Exchange Rate of the Swedish Krona – KIX**

Index 1992-11-18=100, monthly values



Note: A higher index implies a weaker krona.  
Sources: The Riksbank and NIER.

**Diagram 36 Exchange Rates**

SEK per currency unit, monthly values



Sources: The Riksbank and NIER.

**Table 8 Interest Rates**

Percent

	2012	2013	2014	2015	2016	2017
<b>At year-end</b>						
Repo rate	1.00	1.00	1.00	1.50	2.25	3.25
<b>Annual averages</b>						
Repo rate	1.5	1.0	1.0	1.3	1.9	2.8
5-year government bond	1.1	1.8	2.7	3.5	3.9	4.3
10-year government bond	1.6	2.3	3.2	3.8	4.3	4.5

Sources: The Riksbank and NIER.

#### LITTLE REAL WEAKENING OF THE KRONA AHEAD

The krona has shown a strong tendency in the first months of this year. As measured by the KIX nominal effective exchange-rate index, the appreciation has been close to 4 percent since December. The forecast development, with reduced foreign-trade surpluses in the future, indicates that the krona will continue to strengthen in real terms against the currencies of many of Sweden's trading partners. At the same time, the KIX index includes the currencies of several emerging economies. With these economies expected to show higher medium-term productivity growth than Sweden, it is suggested that the krona will weaken in real terms against the currencies of these countries. As measured by the KIX, the krona, with consideration given to its most recent appreciation, is expected to be slightly less than 5 percent weaker 2017 in real terms. Since inflation is expected to be higher abroad than in Sweden during this period, the nominal weakening will be only around 1 percent (see Diagram 35). The forecast development of the krona entails small nominal changes against the dollar and the euro, respectively (see Diagram 36 and Table 9).

**Table 9 Exchange Rates**

Index 1992-11-18=100 and SEK per currency unit, respectively

	2012	2013	2014	2015	2016	2017
KIX index for the Swedish krona	106.1	101.7	102.2	103.2	103.0	102.7
TCW index	120.9	115.0	115.4	116.4	116.2	115.8
Euro	8.71	8.44	8.41	8.45	8.44	8.41
Dollar	6.78	6.43	6.54	6.64	6.59	6.53

Sources: The Riksbank and NIER.

## Fiscal Policy

### UNFUNDED MEASURES WILL CONTRIBUTE TO AN EXPANSIONARY FISCAL POLICY THIS YEAR

In the proposed Budget Bill for 2013, there are unfunded measures equivalent to some SEK 23 billion. The most sweeping measure is the reduction of the corporate tax from 26.3 to 22 percent.<sup>6</sup> The NIER forecasts no further unfunded measures during the year. In total, the net lending of the general government sector is calculated to be about  $-1.4$  percent of GDP this year, double the amount of the deficit compared to last year. After net lending is adjusted for cyclical effects, it will be  $-0.3$  percent of potential output this year compared to  $0.4$  percent last year. The decrease in cyclically adjusted net lending means that fiscal policy has been given an expansionary stance this year (see Diagram 37 and the explanation in the margin).

For 2014 the NIER forecasts that the Government will implement a further SEK 15 billion in unfunded measures, of which the largest item is expected to consist of tax cuts for households.<sup>7</sup> With these unfunded measures, cyclically adjusted net lending will decrease only marginally to  $-0.4$  percent of potential GDP. As a consequence, fiscal policy can be considered neutral next year.

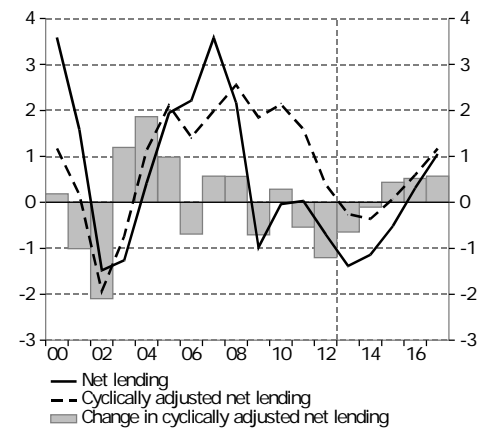
### NEED FOR AUSTERITY MEASURES IN 2015–2017 IN ORDER TO REACH THE SURPLUS TARGET

In the short run the fiscal policy forecast is governed by proposals and announcements in the Budget Bill and the Spring Budget Bill. For coming years, when this information is not available, the fiscal policy forecasts are based on the NIER's assessment of how the fiscal policy framework will be applied. In this assessment, the surplus target is the cornerstone, but the expenditure ceiling and the balanced budget requirement for the local government sector are also considered. The surplus target means that the actual net lending of general government is to average 1 percent of GDP over an economic cycle.

For the surplus target to be met, it is the NIER's opinion that cyclically adjusted net lending must gradually rise to the level of 1.2 percent of potential GDP when the economy is in balance (see the special analysis "The Surplus Target for General Government Finances" at the end of this chapter). According to the current forecast, the economy will be in balance at the end of 2016 with the closing of the output gap at that time (see Diagram 38).

**Diagram 37 Net Lending and Cyclically Adjusted Net Lending, General Government Sector**

Percent of GDP and of potential GDP, respectively



Sources: Statistics Sweden and NIER.

#### Fiscal Policy Concepts

The term **unfunded measures** refers to fiscal policy decisions on increasing expenditure and/or reducing taxes, when such decisions are not funded by equally large decreases in expenditure and/or higher taxes in some other area. Thus, these measures in themselves constitute a deterioration in the net lending of the general government sector and, in addition, normally have a positive effect on GDP.

**Cyclically adjusted net lending** is a calculation of what the net lending of the general government sector would be with balanced resource utilization (a cyclically neutral state) and a normal composition of major tax bases. It is usually presented as a share of potential GDP.

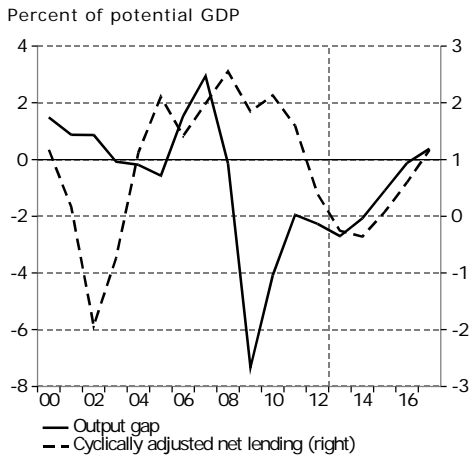
**The fiscal policy stance** in a particular year is derived from the change in cyclically adjusted net lending in relation to potential GDP. If cyclically adjusted net lending is decreasing as a share of potential GDP, this indicates that the fiscal policy stance is *expansionary* in regard to resource utilization in the economy. The reason may be that cyclically adjusted tax revenue is not keeping up with the increase in potential GDP, that potential general government expenditure is rising faster than potential GDP, or a combination of both. Correspondingly, if cyclically adjusted net lending is increasing relative to potential GDP, this indicates that the fiscal policy stance is *contractionary*. Finally, fiscal policy is *neutral* when cyclically adjusted net lending is un-changed in relation to potential GDP.

In the area of fiscal policy, the term **unchanged rules** refers to the development of fiscal policy variables when no further fiscal policy decisions are taken by the Riksdag and the Government. In practice, however, there are significant problems in drawing boundaries.

<sup>6</sup> Budget Bill for 2013 (prop. 2012/13:1).

<sup>7</sup> This forecast is highly uncertain, as there are not presently any clear suggestions from the Government. The assessment is based on the NIER's interpretation of communications from different Government representatives.

**Diagram 38 Output Gap and Fiscal Policy**



Source: NIER.

With unchanged rules in the systems of taxes and transfers, the revenue of general government will increase largely at the same rate as GDP, whereas public expenditure will increase more slowly than GDP.<sup>8</sup> This form of automatic budget reinforcement, however, will not be sufficient to reach the target for cyclically adjusted net lending: 1.2 percent of potential GDP in 2017. Rather, it is the NIER's assessment that a total of SEK 8 billion in measures to strengthen the budget will be required during the period 2014–2017 in order to meet the surplus target. Given the forecast of unfunded measures totalling SEK 15 billion next year, there will thus be a need for budget-reinforcing measures totalling SEK 23 billion during 2015–2017 (see Table 10). The austerity measures in public finances are to be introduced gradually, so that cyclically adjusted net lending in proportion to potential GDP increases from –0.4 percent in 2014 to 1.2 percent in 2017. Fiscal policy will thus be given a contractionary stance after 2014.

**Table 10 Fiscal Policy Measures 2014–2017, Forecast**

SEK billion, change from preceding year

	2014	2015	2016	2017	2014–2017
Unfunded/budget-strengthening measures	–15	4	8	11	8

Note. Effect on general government net lending.

Source: NIER.

The NIER's fiscal policy forecast may be compared with the alternative scenario of no changes in rules during the forecast period; in other words, neither unfinanced nor budget-reinforcing measures are taken.<sup>9</sup> In this alternative scenario, cyclically adjusted net lending in general government is zero next year and positive in the following three years (see Table 11). When net lending increases without the taking of any active political measures, this can be described as a passive contractionary fiscal policy. The tightening of policy means that cyclically adjusted net lending will reach 1.0 percent of potential GDP in 2017, just below the level required, in the NIER's opinion, in order to meet the surplus target.

<sup>8</sup> See the special analysis "The NIER's Assessment of the Scope for Reforms" at the end of this chapter.

<sup>9</sup> See [www.konj.se](http://www.konj.se) for a model-based forecast excluding measures to strengthen the budget in 2014–2017. Here a comparison is made of the effects on the macroeconomic development and public finances between the forecast and with unchanged rules.

**Table 11 General Government Net Lending and Cyclically Adjusted Net Lending With Forecast Fiscal Policy and Excluding Further Measures 2014–2017, Respectively**

Percent of GDP and percent of potential GDP

	2012	2013	2014	2015	2016	2017
Net lending	-0.7	-1.4	-1.1	-0.5	0.3	1.1
Net lending excl. further measures 2014–2017	-0.7	-1.4	-0.8	-0.4	0.1	0.6
Cyclically adjusted net lending	0.4	-0.3	-0.4	0.1	0.6	1.2
Cyclically adjusted net lending excl. further measures 2014–2017	0.4	-0.3	0.0	0.4	0.7	1.0

Source: NIER.

### **MAINTAINING THE STANDARD-OF-SERVICE COMMITMENT OF THE PUBLIC SECTOR WILL REQUIRE ADDITIONAL FUNDING ON THE REVENUE SIDE**

Services provided by the public sector – such as health care, schools and nursing – as well as investment in, and maintenance of, roads, railroads and other collective utilities, may be given a common designation as the *standard-of-service commitment*. This commitment also includes institutional functions, such as the system of justice, and social security functions in the form of sickness insurance, parental allowances and other transfers to households. The extent of the standard-of-service commitment of the public sector is determined in the final analysis by political decisions of central and local government.

If the set of rules governing the expenditure of the public sector is left unchanged, the coverage of public services, as well as the level of allowances in various systems of transfers in relation to nominal earnings, will in time be undermined. This is discussed in the special analysis “The NIER’s Assessment of the Scope for Reforms” at the end of this chapter. In order to maintain the current level of the commitment of the public sector, active political decisions on changes in rules to permit an increase in expenditure are required.

The NIER calculates that the increased cost of maintaining the commitment of the public sector, in addition to that entailed by unchanged rules, during the period 2014–2017 would be SEK 66 billion (see the special analysis for a detailed presentation of these calculations). As discussed above, there will be a need in the same period for SEK 8 billion in measures to strengthen the budget in order to achieve the surplus target. Fully maintaining the commitment of the public sector while at the same time meeting the surplus target thus creates a financing need estimated at SEK 74 billion during the period 2014–2017.



## SPECIAL ANALYSIS

# Updated View of Potential Output and Employment

To prepare forecasts of the actual development in the longer term, the NIER makes assessments of the potential levels of output and employment. One important element is the assessment of the level of equilibrium unemployment. This special analysis presents an updated view of these variables, with a focus on 2013–2017. In the new assessment, the level of potential GDP is somewhat higher in 2017 than in the previous assessment from December 2012.

## Potential GDP – Level of Output When the Economy is in Cyclical Balance

The NIER regularly publishes medium-term forecasts (in this case 2013–2017) and therefore needs to assess the development of the potential levels of important macroeconomic variables like GDP and employment during this time frame. The potential level of output affects, among other things, the margin for permanent unfunded measures in the central government budget, or the so-called scope for reforms (see the special analysis "The NIER's Assessment of the Scope for Reforms" in this chapter).

The NIER's assessment is that potential GDP grew by an annual average of 2.3 percent during the period 1980–2012. In the period ahead, the NIER assesses that potential GDP will grow more slowly, by an average of 1.8 percent per year in 2013–2015, and then increase by more than 2 percent per year in 2016–2017 (Table 12). Underlying the relatively low growth rates in 2013–2015 is a weak tendency in potential productivity and slower growth in the potential labour force.

The NIER's assessment of potential GDP, however, is somewhat higher in 2017 than in the previous assessment (see Table 13).<sup>10</sup> The explanation is a changed view of the level of potential productivity as well as a different assessment of the potential number of hours worked.

### Potential Variables

Potential GDP refers to the level of output that would be achieved if the economy were in cyclical balance.

In the NIER's assessment, potential GDP is divided into potential productivity and the potential number of hours worked. By potential productivity is meant the level of productivity that would have been observed in the absence of cyclical variations.

The potential number of hours worked is determined by potential employment, that is, the number employed when there is cyclical balance on the labour market, and by their average hours of work. Potential employment is determined in turn by the potential labour force and by equilibrium unemployment, that is, the labour force and unemployment when the labour market is in balance.

<sup>10</sup> The previous assessment refers to the forecast in *The Swedish Economy*, December 2012.

**Table 12 Potential Variables**

Percentage change and percent, respectively

	2012	2013	2014	2015	2016	2017
Potential GDP <sup>1</sup>	1.5	1.7	1.8	2.0	2.1	2.1
Potential productivity <sup>2</sup>	0.8	1.2	1.3	1.4	1.6	1.6
Potential productivity, business sector	1.5	1.5	1.6	1.8	2.1	2.1
Potential hours worked	0.8	0.5	0.5	0.5	0.5	0.5
Potential employment	0.7	0.6	0.5	0.5	0.5	0.4
Potential labour force	0.8	0.6	0.5	0.4	0.3	0.3
Equilibrium unemployment <sup>3</sup>	6.9	6.9	6.8	6.7	6.6	6.5

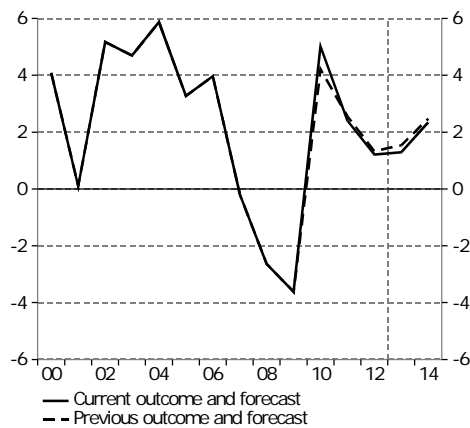
<sup>1</sup> Market price. <sup>2</sup> Whole economy, market price. <sup>3</sup> Percent of potential labour force.

Source: NIER.

## Potential Productivity

**Diagram 39 Productivity, Business Sector**

Percentage change, calendar-adjusted values



Sources: Statistics Sweden and NIER.

### LONG-LASTING SLUMP IN PRODUCTIVITY GROWTH

There are different mechanisms that explain why the actual level of productivity may be either higher or lower than potential productivity. The differences be due primarily to variations in the growth and composition of demand. They may arise from economies of scale or rigidities in the production processes of firms. One such rigidity is when firms do not adjust staffing to temporary fluctuations in demand.

The NIER assumes that potential productivity in the business sector in the long run, after the year 2020, will increase in line with its historical average of 2.3 percent per year since 1980. Potential productivity in the business sector rises more slowly in the preceding years, and by only 1.5–1.8 percent per year in 2012–2015. Growth in productivity is driven primarily by technological development. It is the NIER's assessment that the contribution of technological development to productivity growth in recent years has been less than in the 1990's and early 2000's, and that this will continue to be the case for some years to come.<sup>11</sup>

### NEW ASSESSMENTS OF PRODUCTIVITY GROWTH

New data published since the previous forecast point to higher productivity growth in the business sector. The principal revision is in growth in 2010 (see Diagram 39). This has led to a new assessment of potential productivity growth in the business sec-

<sup>11</sup> See *Report on Wage Formation, 2012*, for a discussion of the factors on which the assessment is based.

tor. It is primarily the estimated growth during the years 2009–2013 that has been revised, whereas potential productivity growth in the business sector in subsequent years is largely unchanged (see Diagram 40).

In addition, productivity growth in public authorities and nonprofit organizations in the long run is assumed to increase by an average of 0.2 percent per year, which corresponds roughly to the historical average rate of increase since 1980. Taken together, the new assessments mean that the potential level of productivity in constant prices for the economy as a whole in 2017 is expected to be somewhat higher than the estimate at the time of the previous forecast.<sup>12</sup>

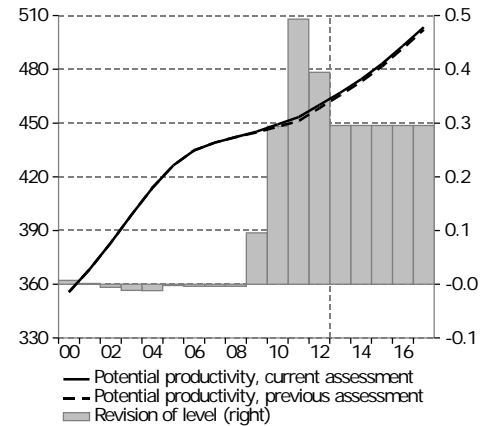
The level of GDP in current prices is not significantly affected by the rate of productivity growth in public agencies. The reason is that the value added in public agencies is calculated from the development of labour costs and the costs of capital consumption, and the development of labour costs in public authorities largely follows the development of earnings in the business sector.<sup>13</sup> The assessment of the long-term growth of productivity in public authorities is thus of negligible significance for the assessment of the level of potential GDP as measured in current prices, nor has the calculated level in current prices in 2017 been revised upward to the same extent as potential GDP in constant prices (see Table 13).<sup>14</sup>

## Potential Number of Hours Worked

The rate of growth in the potential number of hours worked will drop beginning in 2013, primarily because the potential labour force will be growing more slowly than it has done through 2012 (see Table 12). Compared with the previous assessment, however, the rate of growth in potential hours is somewhat stronger, with the result that the level will be higher in 2017 than before. This will contribute to a higher potential level of GDP in 2017 (see Table 13).

**Diagram 40 Potential Productivity, Business Sector**

SEK per hour, constant prices and percent, respectively



Source: NIER.

<sup>12</sup> It was previously assumed that there would be no productivity growth for public authorities and nonprofit organizations. In constant prices refers to volume in 2011 price levels.

<sup>13</sup> Public agencies can choose to take out productivity gains in the form of higher quality for an unchanged number of hours worked at the same cost, or obtain lower costs for unchanged quality with fewer hours worked. In the first case, the value added of public agencies in current prices is unaffected by productivity growth. In the latter case, value added will be lower in public agencies, but labour is freed up to work in the private sector, where value added is thus higher.

<sup>14</sup> Potential GDP in current prices is calculated on the basis of the actual development of the GDP deflator.



**Table 13 Revisions to Potential Variables**

Revisions to levels compared to previous assessment, percent

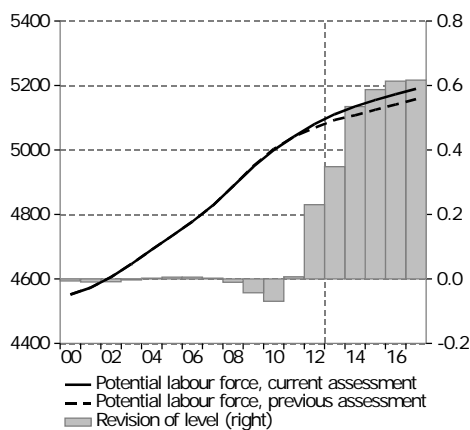
	2012	2017
Potential GDP, current prices	0.2	0.3
Potential GDP, constant prices <sup>1</sup>	0.3	0.7
Potential productivity, whole economy <sup>1</sup>	0.2	0.4
Potential productivity, business sector <sup>2</sup>	0.4	0.3
Potential hours worked	0.1	0.3

<sup>1</sup> Market prices, 2011 price level. <sup>2</sup> Basic prices, 2011 price level.Note. Previous assessment is the forecast in *Konjunkturläget (The Swedish Economy)*, December 2012.

Source: NIER.

**Diagram 41 Potential Labour Force**

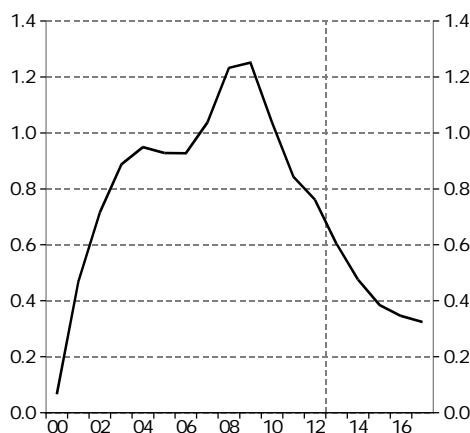
Thousands and percent, respectively



Source: NIER.

**Diagram 42 Potential Labour Force**

Percentage change



Sources: Statistics Sweden and NIER.

**STRONG GROWTH IN POTENTIAL LABOUR FORCE IN RECENT YEARS**

The labour supply has grown strongly in recent years despite the fact that demand for labour has been weak from time to time. This is partly explainable by the demographic development, where the number of people of working age has been rapidly increasing. At the same time, the Government's economic policy reforms to increase the labour supply have probably had their intended effect.<sup>15</sup> According to the NIER's assessment, the potential labour force has increased strongly, and its level is higher than in the previous assessment (see Diagram 41).

The growth in labour supply the past two years has been largely among persons 65–74 years of age, with the result that the labour force participation rate in this group has risen rapidly. In the NIER's assessment of the potential labour force, labour force participation among older persons will continue to rise in the period ahead. The reason is that younger cohorts show a higher rate of labour force participation than older cohorts, which gradually increases the average rate of labour force participation.

However, the growth of the potential labour force will drop to a lower level in coming years (see Diagram 42 and Table 12). This will be due to a changed population structure and to the fact that the reforms are likely to have had their full effect. The continued trend of increased labour force participation among older people, though, will contribute to a somewhat higher rate of growth than would otherwise have been the case.

<sup>15</sup> According to the NIER's assessment, the economic policy reforms implemented since 2007 are increasing the potential labour force by 2.6 percent. See the special analysis "Long-Term Effects of Economic Policy Reforms on the Labour Market" in *The Swedish Economy*, December 2011.

## THE NIER'S ASSESSMENT OF EQUILIBRIUM UNEMPLOYMENT

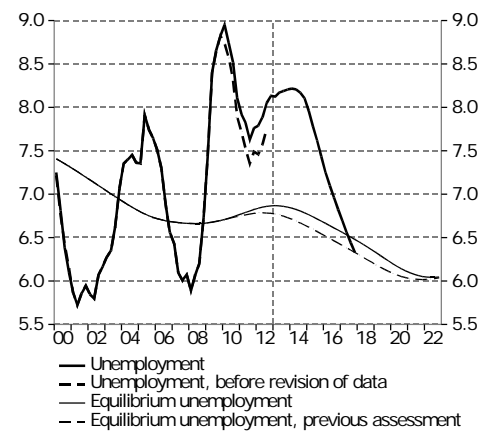
Equilibrium unemployment is determined mainly by structural factors such as how effectively job openings are matched with jobseekers and by the actions of the social partners.<sup>16</sup> Equilibrium unemployment is also affected by the degree to which extended periods of high unemployment give rise to so-called persistence effects. A deep and prolonged recession may have long-lasting effects on unemployment and employment, partly because prolonged periods of unemployment make the unemployed less competitive on the market.<sup>17</sup>

It is the NIER's assessment that the prolonged period of high unemployment will raise equilibrium unemployment by almost 0.6 percentage point (about 30 000 persons) in 2016. This is somewhat higher compared to the previous assessment, which is explainable primarily by the fact that Statistics Sweden has revised upward the level of unemployment for the period 2010–2012 (see Diagram 43).<sup>18</sup> Long-term unemployment is also at a somewhat higher level. At the same time, unemployment has risen during the course of 2012 and is expected to be at a high level in the next few years as well.

For this year equilibrium unemployment is forecast to be almost 7 percent (see Table 12). Persistence effects are not anticipated to affect equilibrium unemployment permanently. By 2020 most of the persistence effects are expected to have subsided, and equilibrium unemployment will be about 6 percent (see Diagram 43).<sup>19</sup> The reason why equilibrium unemployment will be decreasing is that previously implemented economic policy reforms, such as the tax credit on earned income (*jobbskatteavdraget*) and the changes in the unemployment insurance system, will reduce equilibrium unemployment gradually. The adjustment to the new equilibrium, however, is expected to take time, one reason being that wages and salaries are rigid.<sup>20</sup>

**Diagram 43 Unemployment and Equilibrium Unemployment**

Percent of labour force, seasonally adjusted quarterly values



Sources: Statistics Sweden and NIER.

<sup>16</sup> See *Wage Formation in Sweden 2012*.

<sup>17</sup> See, for example, Guichard, S. and E. Rusticelli, "Assessing the impact of the financial crisis on equilibrium unemployment in OECD countries", OECD Economic Department Working Papers no. 767, 2010.

<sup>18</sup> The number employed has averaged 17 000 persons fewer, and unemployment has averaged 0.3 percentage point higher than was previously known; see [www.scb.se/lfs](http://www.scb.se/lfs)

<sup>19</sup> For a more thorough description of the driving forces that contribute to lower equilibrium unemployment, see *Wage Formation in Sweden 2012*.

<sup>20</sup> See the special analysis "Long-Term Effects of Economic Policy Reforms on the Labour Market" in *The Swedish Economy*, December 2011.



## SPECIAL ANALYSIS

### The NIER's Assessment of the Scope for Reforms

**The NIER defines the scope for reforms as the margin available in the central government budget for permanent unfunded measures in the latest five-year period. For the period 2013–2017 it is the NIER's assessment that the margin for new permanent unfunded measures is sharply limited. This is explained by the fact that fiscal policy has had an expansionary stance and should be tightened in the period ahead in order for net lending to be in line with the surplus target.**

The concept of scope for reforms has been used frequently in the debate on the economy. However, as the concept lacks a clear definition, it tends to mean different things. The first part of this special analysis describes how the NIER defines the concept of scope for reforms and how it can be calculated. In the second part the NIER presents its assessment of the scope for reforms for 2013–2017.

### The NIER's Definition of the Scope for Reforms

#### **AUTOMATIC BUDGET REINFORCEMENT IN THE ABSENCE OF ACTIVE NEW POLITICAL DECISIONS**

The Government's margin for implementing unfunded measures that weaken the budget is ultimately limited by the surplus target for general government finances. The surplus target provides that the net lending of the general government sector is to average 1 percent of GDP over an economic cycle.<sup>21</sup> The design of the surplus target thus permits net lending to vary over an economic cycle (see the special analysis "The Surplus Target for General Government Finances"). This is also done normally, partly through the so-called automatic stabilizers,<sup>22</sup> and partly through active fiscal policy decisions.

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<sup>21</sup> The magnitude of measures is also limited on the expenditure side by the ceiling on central government expenditure.

<sup>22</sup> The development of public finances automatically weakens when the economy deteriorates. The principal reason is that tax revenues develop in proportion to various tax bases, which tend to stagnate or decrease in an economic downturn. At the same time, there is an increase in other expenditure – on unemployment, for instance.

The NIER calculates cyclically adjusted net lending as the net lending of the general government sector adjusted for the effects of automatic stabilizers. Cyclically adjusted net lending shows what net lending would have been if the economy had been in cyclical balance. Cyclically adjusted net lending is therefore a measure of the underlying level of the net lending in general government.<sup>23</sup> If cyclically adjusted net lending increases (decreases), this is taken to mean that the stance of fiscal policy is contractionary (expansionary).

With unchanged rules, that is, in the absence of active new political decisions, cyclically adjusted net lending increases over time, giving fiscal policy a contractionary stance.<sup>24</sup> This occurs because public expenditure normally increases more slowly than revenue with the economy in balance and with unchanged rules, which are ultimately determined by the set of rules that govern indexation of various items of government expenditure (see the fact box below on the NIER's method of calculating revenue and expenditure with unchanged rules). Since tax revenue increases at largely the same rate as potential GDP with the economy in balance and unchanged rules, the overall effect is an automatic strengthening of the budget, which is the mechanism that creates the scope for reforms. In the normal case, therefore, unfinanced measures must be implemented each year for cyclically adjusted net lending to remain unchanged and for fiscal policy to have a neutral stance.

With the design of the rules, however, the standard of service decreases if the rules remain unchanged, given the current demographic trend.<sup>25</sup> This decrease takes place through a lower standard of public services, for example in reduced staff intensity in health care, schools and nursing, as a consequence of nominally unchanged central government grants and unchanged local government tax rates. It also takes place through a decrease in disbursement levels per individual relative to the general level of earnings. Thus, the automatic budget reinforcement arises primarily as a consequence of a reduced standard-of-service commitment.

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<sup>23</sup> Cyclically adjusted net lending is calculated as revenue with GDP at its potential level, normal composition of tax bases and actual implicit tax rates less actual expenditure with employment at its structural level. The Ministry of Finance calculates a similar measure termed structural saving.

<sup>24</sup> "Unchanged rules" means that revenue and expenditure are projected on the basis of the macroeconomic development and the set of rules currently in effect. See the fact box below on the NIER's method for calculating revenue and expenditure with unchanged rules.

<sup>25</sup> The standard-of-service commitment has not been constant over time, nor should it be. Political preferences and the development of society affect what is considered a desirable commitment. See the fact box below on the NIER's method for calculating primary expenditure with an unchanged standard-of-service commitment.

## THE NIER'S DEFINITION OF THE SCOPE FOR REFORMS

The NIER defines the scope for reforms as the *permanently unfunded measures* in the central government budget for which there is room within the limits of the surplus target over a period of years. To enhance comparability over time (and with the calculations of the Ministry of Finance), the NIER has chosen to calculate the scope for reforms for the next five-year period.<sup>26</sup> The starting point for the calculation is the latest year for which there exists a budget bill. The current period covers the years 2013–2017.

It is difficult to specify a *scope for reforms* for individual years since the margin for unfunded measures in a particular budget bill depends on political considerations. The magnitude of these measures reflects both the need for an active fiscal policy and the need for future adjustments of net lending in order to meet the surplus target. A budget bill with a larger appropriation for unfunded measures in the first year means that the margin for unfunded measures will be somewhat less in subsequent budget bills, and vice versa. Thus, the scope for reforms does not indicate an amount in a particular budget.

## MAGNITUDE OF SCOPE FOR REFORMS CALCULATED FROM CYCLICALLY ADJUSTED NET LENDING

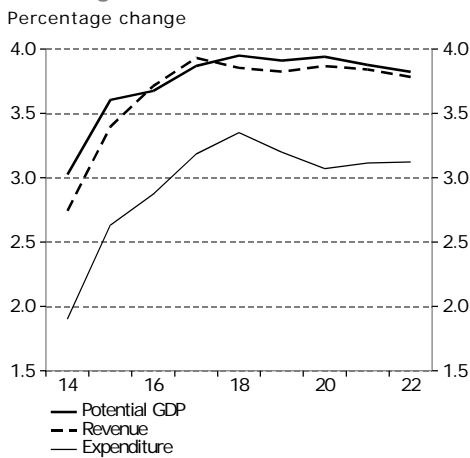
In calculating the scope for reforms, the NIER uses cyclically adjusted net lending as the starting point. The NIER interprets the surplus target as a forward-looking one. This means that net lending should be in line with the surplus target when the economy is in cyclical balance and the output gap is closed.

The magnitude of the scope for reforms depends partly on what cyclically adjusted net lending is considered compatible with the surplus target when the economy is in balance, and partly on what cyclically adjusted net lending is estimated to be at the end of the five-year period. The NIER's assessment is that cyclically adjusted net lending should be 1.2 percent of potential GDP when the economy is in cyclical balance, in order for net lending to be regarded as in line with the surplus target (see the special analysis "The Surplus Target for General Government Finances").<sup>27</sup>

<sup>26</sup> The scope for reforms can be defined for another period. The longer the period, the greater the scope for reforms since the automatic budget reinforcements of several years will be added to it. For a period that is too short, on the other hand, it is not possible to specify a scope for reforms. There may be cyclical reasons for a temporary deviation of cyclically adjusted net lending from the target level. This makes it difficult to determine whether net lending is compatible with the surplus target during a period when the economy is not in balance.

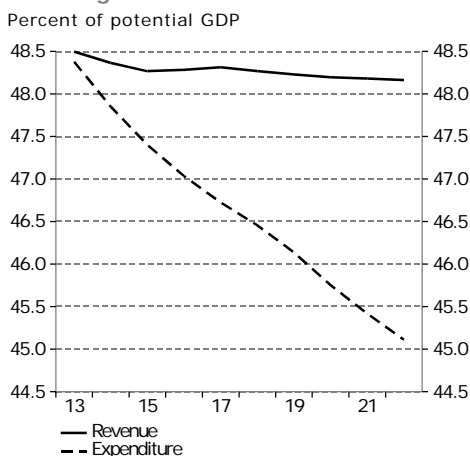
<sup>27</sup> The NIER has made a downward revision of the target level for cyclically adjusted net lending. Previously it was determined to be 1.5 percent of potential GDP (see the special analysis "The Surplus Target for General Government Finances").

**Diagram 44 General Government Revenue and Expenditure with Unchanged Rules**



Note. Development in a cyclically neutral state.  
Source: NIER.

**Diagram 45 General Government Revenue and Expenditure with Unchanged Rules**



Note. Levels in a cyclically neutral state.  
Source: NIER.

The scope for reforms can be calculated as the difference between cyclically adjusted net lending with unchanged rules in the final year and the target level of 1.2 percent. If, for example, cyclically adjusted net lending in the final year is estimated at 2.0 percent of potential GDP with unchanged rules, the scope for reforms during the immediately following five-year period will be equivalent to 0.8 percent of potential GDP.

#### SCOPE FOR REFORMS NOT AFFECTED BY RESOURCE UTILIZATION IN THE ECONOMY

Low resource utilization means that the automatic stabilizers will weaken net lending. This does not, however, entail any limitation of the scope for reforms since the low net lending is only temporary. When the economy enters an upturn and resource utilization is normalized, net lending improves again.

On the other hand, the scope for reforms is affected by the level of cyclically adjusted net lending at the outset of the five-year period. If fiscal policy has previously had an expansionary stance and cyclically adjusted net lending is less than 1.2 percent of potential GDP at the outset, fiscal policy must be gradually tightened for net lending to return to its long-term target level. This need not take place through active reductions in expenditure. If the deviation from the long-term target level is not overly large, the tightening can be achieved solely through reducing the amount of unfunded measures during a period.

#### DEVELOPMENT OF PUBLIC SECTOR EXPENDITURE CURTAILED BY DESIGN OF THE SET OF RULES

The automatic budget reinforcement arises because the primary expenditure of general government develops more slowly than the primary revenue with the economy in cyclical balance and with unchanged rules. The revenue of general government increases under these conditions at the same rate as the respective tax base, which in turn follows potential GDP relatively closely (see Diagram 44). The development of revenue with unchanged rules is therefore governed to a large extent by the forecast development of central macroeconomic variables in the longer term, such as potential productivity and structural employment, as well as the composition of demand and tax bases. Higher potential GDP growth in the economy, through higher potential productivity growth or more potential hours worked, leads to an increase in the scope for reforms.

With the current set of rules, the standard-of-service commitment decreases each year in the absence of active new decisions. The expenditure of general government then increases

more slowly than its revenue (see Diagram 44). Expenditure thus decreases as a share of potential GDP (see Diagram 45). This is so primarily because:

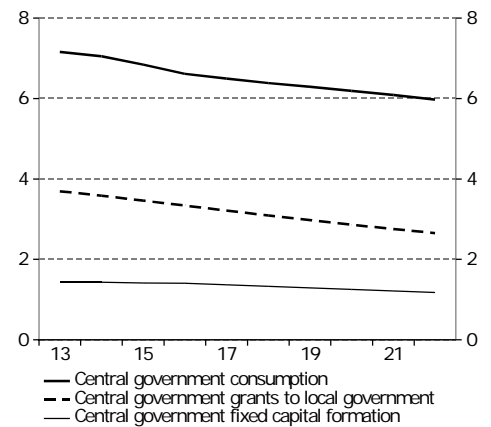
- The appropriations of central government authorities increase by a weighted factor for the development of prices and earnings (PLO), which is normally less than GDP growth in current prices (see Diagram 46).
- The plans for central government investment in infrastructure usually entail decreased expenditure for investment as a share of potential GDP (see Diagram 46).
- Central government grants to local governments are not regularly indexed; instead, changes are made by active decision (see Diagram 46).
- Several systems of transfers lack indexation of earnings. Individual allowance levels are revised upward in certain cases by the price-dependent base amount, such as study allowances, or in other cases are left unchanged in nominal terms, such as child allowances (see Diagram 47).
- Other transfer-based systems have set low ceilings which are not indexed; these systems include unemployment insurance and compensation for participation in labour-market programmes. This means that disbursements to most individuals covered by the system do not keep pace with the general progression of earnings (see Diagram 47).

In addition to the set of rules, various structural changes can affect the development of expenditure. One example is expenditure for sickness and activity compensation, which according to the National Social Insurance Agency is expected to continue decreasing as a share of potential GDP because fewer people will be receiving these benefits in the next few years (see Diagram 47).<sup>28</sup> The opposite case is the rising disbursements, in proportion to GDP, of the old-age pension system due to an increasing proportion of elderly persons in the population (see Diagram 48).

The scope for reforms is also affected by variations in the net interest expenditure of general government, via changed interest rates and/or changed indebtedness. Rising market interest rates on the debt of general government limit the scope for reforms.

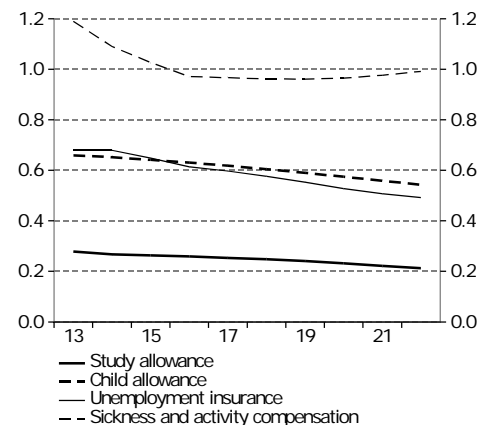
<sup>28</sup> Beginning with 2020, expenditure for persons with sickness and activity compensation will increase slightly in proportion to revenue.

**Diagram 46 General Government Expenditure with Unchanged Rules**  
Percent of potential GDP



Note. Levels in a cyclically neutral state.  
Source: NIER.

**Diagram 47 General Government Expenditure with Unchanged Rules**  
Percent of potential GDP



Note. Levels in a cyclically neutral state.  
Source: NIER.

**Diagram 48 Old-age Pensions Payable**  
Percent of potential GDP



Note. Levels in a cyclically neutral state.  
Source: NIER.



## SOME FACTS

### **The NIER's method for calculating revenue and expenditure with unchanged rules**

The NIER calculates the revenue and expenditure of general government with unchanged rules, that is, with the set of rules currently in force. Revenue is projected according to the development of the respective tax base and with unchanged implicit tax rates. Expenditure is projected with models that reflect the set of rules currently in force.

*Central government consumption expenditure* with unchanged rules will be based in the near future on the forecasts of the Government or the Swedish National Financial Management Authority. Thereafter, expenditure will be projected by an estimated price and earnings indexation factor (PLO) that provides the set of rules for indexation of appropriations. Adjustments are also made for temporary projects that are being terminated.

*Central government investment expenditure* with unchanged rules is based on the Government's investment plans for roads and railroads. These plans are used for projecting investment in buildings and structures. Investment in other types of capital is projected according to the CPI.

*Central government transfers* with unchanged rules are projected with the aid of models reflecting, at an aggregate level, the rules in the respective transfer system. Certain sets of rules contain no indexation of benefit levels. Expenditure for child allowances, for example, is projected according to the number of children aged 0–15, since changes in the child allowance requires political decisions. Other sets of rules are covered by low ceiling amounts that are not indexed, such as unemployment insurance. Expenditure for this purpose is projected only by the number of unemployed since an overwhelming share of individuals receive compensation on the same level as the ceiling. Still other transfer schemes have higher ceilings which are, in addition, indexed using the price base amount, such as the parental insurance system. These transfers are projected by the relevant age group, or other relevant group, and according to nominal hourly earnings

*Central government grants to local governments* with unchanged rules are assumed to remain the same in nominal terms. Local government consumption is calculated as the consumption expenditure for which there is a sufficient margin given an unchanged local government tax, nominally unchanged central government grants and the NIER's forecast for investment (which estimates local government investment at roughly 1.9 percent of potential GDP in the longer term).

## Assessment of the scope for reforms

### LIMITED SCOPE FOR REFORMS UP UNTIL 2017

Cyclically adjusted net lending with unchanged rules will amount to 1.0 percent of potential GDP in 2017, according to the NIER's forecast for the development of the macroeconomy.<sup>29</sup> This is lower than the level of 1.2 percent considered compatible with the surplus target in the longer term. The scope for reforms for 2014–2017 is thus –0.2 percent of potential GDP, equivalent to a saving need of SEK 8 billion.<sup>30</sup> One interpretation is that budget reinforcements on the revenue side are required in this amount in order to finance expenditure with unchanged rules and at the same time meet the need for greater fiscal austerity.

The contribution to the scope for reforms can be decomposed into contributions from automatic budget reinforcement, adjustment of fiscal policy to meet the surplus target and (net) changes in interest expenditure (see Table 14).

**Table 14 Contributions to Scope for Reforms 2014–2017**

SEK billion and percent of potential GDP, respectively

Automatic budget-strengthening given unchanged rules (1)	64	1.5
<i>Contribution from primary income</i>	<i>264</i>	
<i>Contribution from primary expenditure</i>	<i>–200</i>	
Adjustment of fiscal policy to the surplus target (2)	–60	–1.4
Net interests (3)	–12	–0.3
<b>Scope for reforms (1+2+3)</b>	<b>–8</b>	<b>–0.2</b>

Source: NIER.

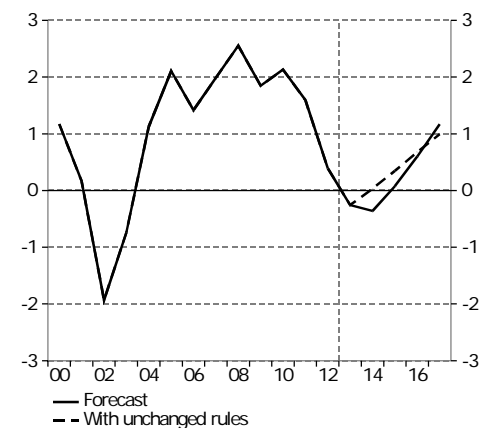
The automatic budget reinforcement arising when primary expenditure develops more slowly than primary revenue with unchanged rules is calculated to be SEK 64 billion. Fiscal policy

<sup>29</sup> The calculation of unchanged rules is based on the Budget Bill for 2013 and the average local government tax for 2013. The calculation is based on the assumption that no further unfunded measures are decided for 2013. In the event of such decisions, the scope for reforms 2014–2017 would decrease correspondingly.

<sup>30</sup> If the economic cycle were assumed to be symmetric in the future, cyclically adjusted net lending would need to be only 1.0 percent of potential GDP in the longer term in order for actual net lending to be compatible with the surplus target. The scope for reforms for 2013–2017 would then be close to SEK 0 billion.

**Diagram 49 Cyclically Adjusted Net Lending**

Percent of potential GDP



Source: NIER.

has had an expansionary stance for several years, and cyclically adjusted net lending will be only –0.3 percent of potential GDP in 2013 (see Diagram 49). In order for cyclically adjusted net lending to rise to 1.2 percent of potential GDP by 2017, fiscal austerity measures totalling SEK 60 billion will be required. In addition, increased costs of interest due to rising interest rates and a slightly higher public debt will reduce the scope for reforms by a further SEK 12 billion.

#### **FINANCING NEEDS WITH AN UNCHANGED STANDARD-OF-SERVICE COMMITMENT<sup>31</sup>**

The automatic budget reinforcement arises primarily from a reduced standard-of-service commitment. The NIER estimates that SEK 61 billion in central government measures would be required to maintain the standard-of-service in 2014–2017 (see Table 15 and the fact box below for more information on the NIER’s method for calculating primary expenditure with an unchanged standard-of-service commitment).<sup>32</sup> The overwhelming majority of the measures are needed in order for central and local government consumption to keep pace with increasing demographic needs. The pressure on expenditure arises primarily from the growing proportion of children and elderly people in the population in the years to come (see the special analysis “The Surplus Target for General Government Finances”).

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<sup>31</sup> The term “an unchanged standard-of-service commitment” replaces the concept of “securing the real value of public expenditure” previously used by the NIER.

<sup>32</sup> The calculation of expenditure with an unchanged standard-of-service commitment is based on the Budget Bill for 2013 and the level of various expenditure items that year.

**Table 15 Total Change of Costs in Excess of Unchanged Rules 2014–2017 Given Maintained Public Sector Commitment**

SEK billion and percent of potential GDP, respectively

Central government measures given maintained public sector commitment (1)	61	1.4
<i>Thereof central government consumption</i>	22	0.5
<i>Thereof central government grants to local government</i>	24	0.6
<i>Thereof central government fixed capital formation</i>	3	0.1
<i>Thereof central government transfers</i>	12	0.3
Local government financing need after increased central government grants (2)	5	0.1
<b>Total change of costs for maintaining public sector commitment (1+2)</b>	<b>66</b>	<b>1.5</b>
Scope for reforms (3)	-8	-0.2
<b>Total financing need given maintained public sector commitment (1+2-3)</b>	<b>74</b>	<b>1.7</b>

Source: NIER.

Even when central government grants keep pace with the increasing demographic need, there arises a local government financing need in order to keep a commitment within the limits of the balanced budget requirement for local governments. The reason is that given the average local government tax rate for 2013, the tax revenue of local governments will increase more slowly than consumption expenditure with an unchanged commitment. There will be a need to increase local government revenue further to about SEK 5 billion, equivalent to a higher local government tax of about 0.22 percentage points, in 2014–2017 in order for consumption expenditure to keep up with the growing demographic need. Without tax increases and with other revenue given, local governments will not be able to increase consumption at the same rate as the demographic need.

The aggregate cost of maintaining the commitment of the public sector is estimated at SEK 66 billion. Taken together with the need for a contractionary fiscal policy in order to meet the surplus target, there is a total financing need (through tax increases, for example) equivalent to SEK 74 billion.

## SOME FACTS

### **The NIER's Method for Calculating Primary Expenditure with an Unchanged Standard-of-Service Commitment**

The calculation of the primary expenditure of general government with an unchanged standard of service is based primarily

on the development of the population in different age groups and on nominal hourly earnings.

*Central and local government consumption expenditure* with an unchanged standard of service are projected by the demographically determined demand for different types of public services. The method reflects unchanged staff intensity in public services. The demographically determined development of consumption will accelerate when the number of children and elderly individuals increases in relation to persons of working age, since the average cost of health care, nursing and other care for the elderly and for children is relatively high.

*Central government grants to local governments* are projected by demographically determined demand. Central government grants then constitute a fixed share of local government consumption.

*Central and local government investment expenditure* with an unchanged standard-of-service commitment is projected by the development of potential GDP in current prices.

*Central government transfers* with no change in the standard-of-service commitment are projected according to the population in the relevant age group or some other group and by nominal hourly earnings. Thus, the level of subsidies and expenditure per individual are held constant in relation to nominal earnings, which means that the benefits provided by the systems of transfers will maintain their relative purchasing power (unchanged replacement rate).

## SPECIAL ANALYSIS

# The Surplus Target for General Government Finances

According to the NIER's assessment, fiscal policy has been conducted in accordance with the surplus target since 2000, when the target was introduced. The surplus target has contributed to structural improvement of public finances. An increased proportion of the elderly in the population, however, will put pressure on the expenditure of the general government sector. At the same time, reduced saving in the old-age pension system means that net lending in central government must increase for the surplus target to be achieved. In order to reach the targeted level of 1 percent of GDP for the average net lending of the general government sector over an economic cycle, fiscal policy should take into account the fact that economic cycles are typically asymmetric. Consequently, fiscal policy should be adjusted so that cyclically adjusted net lending will be 1.2 percent of potential GDP when the economy is in cyclical balance.

This special analysis is devoted to the surplus target for general government finances. The first part presents the reasons for the surplus target. Also dealt with is the level of the target, 1 percent of GDP, in view of the increased proportion of the elderly in the population. The second part discusses how fiscal policy should take into account the typically asymmetric character of economic cycles -- in other words, the fact that recessions are longer than periods of an expanding economy -- in meeting the surplus target. The third part is devoted to the NIER's assessment of target achievement since the surplus target was introduced.

## Why a Surplus Target?

### SEVERAL REASONS FOR THE SURPLUS TARGET

Since 2000 the surplus target for the net lending of the general government sector has been a central element of Sweden's fiscal policy framework.<sup>33</sup> The current target is for net lending to

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<sup>33</sup> The surplus target was introduced in 1997 but was phased in over a three-year period. The fiscal policy framework also includes the ceiling on central government expenditure and the requirement of a balanced budget in the local government sector. See "The Swedish fiscal policy framework", [www.government.se](http://www.government.se), (English translation of the Government letter "Ramverk för finanspolitiken", skr 2010/11: 79).

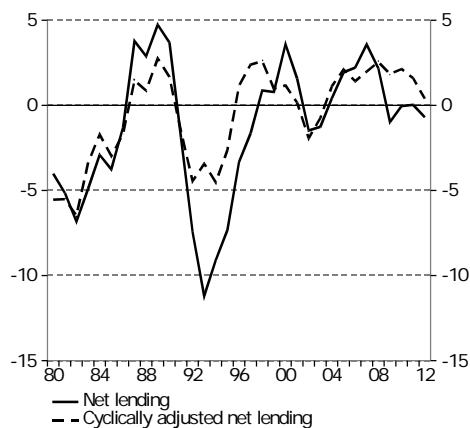
average 1 percent of GDP over an economic cycle.<sup>34</sup> Setting the target to cover an economic cycle is appropriate for reasons of stabilization policy. It enables the Government to follow a countercyclical fiscal policy, which is expansionary in an economic downturn and contractionary in an upturn. If the surplus target had been expressed as a target for net lending in particular years, it would have been necessary to tighten fiscal policy when the economy entered a recession and to give fiscal policy an expansionary stance in a booming economy in order to counteract the automatic stabilizers.<sup>35</sup>

One of the original reasons for the surplus target was to reduce the net debt of the general government sector.<sup>36</sup> Another consideration was demographic variations and intergenerational fairness. By saving and paying off central government debt during a period with a relatively favourable demographic profile, the needs of a rising proportion of older persons in the population could be met more easily in the future. When demographic pressure on public finances increased, the surplus target could be adjusted downward to provide room for greater expenditure. A surplus target that responds in this way to changes in the demographic composition of the population would improve fairness between generations.

In addition, the Government is currently justifying the surplus target on the ground that it creates buffers in public finances in preparation for economic downturns. If general government finances show surpluses at the outset of a recession, there will be less risk of a large accumulation of debt, and it will be easier to give fiscal policy an expansionary stance. The view that the surplus target is a kind of saving buffer conflicts to some extent with the thinking that the surplus target can vary for demographically related motives. The Government takes note of this in "The Framework for Fiscal Policy": "As the surplus target is motivated in several ways, its appropriate level may have to be adjusted in the light of the relative importance that is attached to the various motives."<sup>37</sup>

**Diagram 50 General Government Net Lending**

Percent of GDP and of potential GDP, respectively



Sources: Statistics Sweden and NIER.

<sup>34</sup> The Government is required by the Budget Act to submit to the Riksdag a proposed target for the net lending of the general government sector.

<sup>35</sup> The automatic stabilizers are discussed in greater detail in the section "The Surplus Target and the Asymmetric Economic Cycle".

<sup>36</sup> See "Utvärdering av överskottsmålet" ("Evaluation of the surplus target"), government report Ds 2010:4.

<sup>37</sup> See "The Swedish fiscal policy framework", [www.government.se](http://www.government.se), (English translation of the Government letter "Ramverk för finanspolitiken", skr 2010/11:79), p. 21.

### INCREASED NET LENDING AND DECREASED DEBT RATIO

Since the fiscal policy framework was introduced, there has been a structural reinforcement of net lending in the general government sector. During the period 1980–1999 cyclically adjusted net lending averaged –1.5 percent of potential GDP (see Diagram 50).<sup>38</sup> For the period 2000–2012 the same measure was 1.1 percent. The introduction of a surplus target has probably contributed to this structural improvement in net lending.

The net lending surplus has entailed a reduction in government indebtedness. Central government debt has decreased in proportion to GDP from over 70 percent at the end of the 1990's to just over 30 percent in 2012 (see Diagram 51). The decrease in Maastricht debt, which measures the indebtedness of the entire public sector, has been almost equally great. The net indebtedness of general government, that is, its total financial debt less total financial assets, decreased from about 20 percent of GDP to –20 percent of GDP during the same period. Thus, financial net wealth has been accumulated,<sup>39</sup> principally through a reduction in central government debt.

### THE DEMOGRAPHIC CHALLENGE

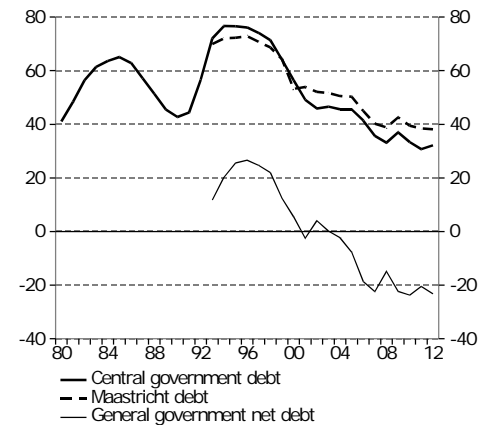
Public finances will be put under increasing pressure in the next two decades from the growing proportion of elderly persons in the population. It is estimated that between 2010 and 2030 the dependency ratio in the economy will rise from 71 percent to 87 percent, according to the population forecast of Statistics Sweden (see Diagram 52).<sup>40</sup> As a consequence, public expenditure, particularly for care of the elderly and handicapped, will have to increase more rapidly than GDP in order to prevent deterioration in the standard of service per recipient (staffing per recipient). Local governments finance most of the care for the elderly and handicapped. In order to meet future needs in consistency with the balanced budget requirement for local governments, there will be growing pressure to increase central government grants and/or the local government tax.

<sup>38</sup> Cyclically adjusted net lending is discussed in more detail below in the section "The Surplus Target and the Asymmetric Economic Cycle".

<sup>39</sup> At the subsector level, only the old-age pension system shows any net wealth – 25 percent of GDP – in the financial accounts. The indebtedness of the local government sector is close to zero, and the central government sector has net indebtedness of 7 percent of GDP. In 2012, the financial assets of general government as a whole, according to the financial accounts, consisted of listed shares (18 percent), other shares and ownership shares (22 percent), bonds and financial derivatives (20 percent), loans (20 percent), unpaid revenue (12 percent), fund shares (4 percent) and other assets (4 percent).

<sup>40</sup> The dependency ratio indicates the relationship between persons who are not of working age and the persons who are of working age. Here the dependency ratio is defined as the number of persons aged 0–19 and 65 or older, divided by the number aged 20–64.

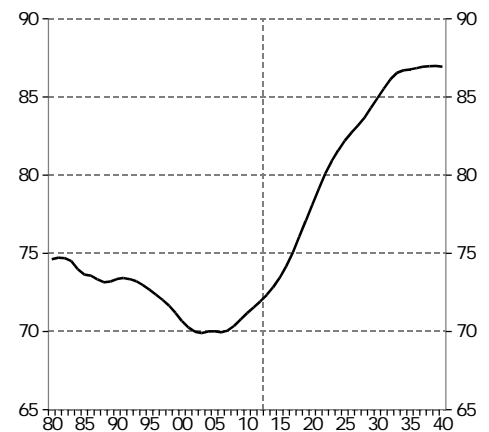
**Diagram 51 General Government Debt**  
Percent of GDP



Sources: Statistics Sweden and NIER.

**Diagram 52 Dependency Ratio**

Number of persons aged 0–19 and 64+, divided by number of persons aged 20–64, percent

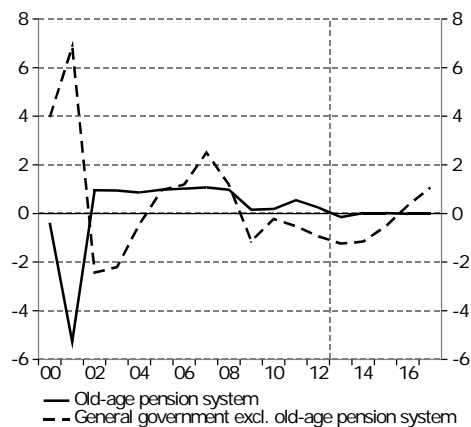


Sources: Statistics Sweden and NIER.



**Diagram 53 Net Lending**

Percent of GDP



Sources: Statistics Sweden and NIER.

The old-age pension system is part of the general government sector and is subject to the surplus target. In 2002–2008 the net lending of the old-age pension system averaged 1 percent of GDP. With increasing pension disbursements due to a greater number of elderly people, the net lending of the old-age pension system had dropped to about 0 percent of GDP in 2012 and is expected to remain there for an extended period. To compensate for this development while still observing the surplus target, it will be necessary to increase central government net lending (see Diagram 53). Thus, the higher proportion of older people will mean increasing pressure on central government finances in regard to both saving and expenditure, primarily in the form of central government grants to local governments.

The NIER has previously calculated the long-term sustainability of public finances.<sup>41</sup> These calculations show that small deficits in net lending through about 2040, which would be the consequence of unchanged tax rates and maintenance of the public-sector commitment, would not result in unsustainable public finances. The net assets of the general government sector are expected to decrease during this period but will stabilize thereafter. The calculations thus indicate that a lower surplus target for a period would not jeopardize the long-term stability of public finances. Admittedly, however, the calculations are subject to considerable uncertainty, and the findings should be interpreted with caution.

## The Surplus Target and the Asymmetric Economic Cycle

### AUTOMATIC STABILIZERS

The net lending of the general government sector normally varies with GDP. In an economic downturn the development of tax bases thus diminishes, as does tax revenue. For example, a decrease in employment leads to lower tax revenue from households. At the same time, expenditure increases, particularly that related to unemployment. The automatic stabilizers thus help to stabilize the economy even in the absence of active fiscal policy measures.

The NIER distinguishes two kinds of changes in net lending: changes that depend on active political decisions and changes that depend on the state of the economy (automatic stabilizers).

<sup>41</sup> See "Konjunkturinstitutets beräkning av långsiktig hållbarhet i de offentliga finanserna" ("The NIER's Estimate of the Long-Term Sustainability of Public Finances"), fördjupnings-pm (brief paper) no. 20, NIER, 2013.

In Diagram 54 it is shown how net lending varied together with the output gap because of automatic stabilizers in 2007–2017.<sup>42,43</sup> The slope of the curve shows how much a one-percent change in the output gap automatically affects the net lending of the general government sector. For the period 2007–2012 this budget elasticity is calculated to be 0.4. Budget elasticity has decreased by comparison, for example, with the period 1995–2006, when it was calculated at 0.8 (see Diagram 55). Thus, public finances have become less sensitive to fluctuations in the economic cycle. The explanations for this development include, above all else, a lower tax ratio in the economy, primarily due to the tax credit on earned income (jobbskatteavdraget), but also a lower effective replacement rate before taxes in the unemployment insurance system.

### ASYMMETRIC ECONOMIC CYCLES

The surplus target is formulated as one for the average net lending of general government over an economic cycle. If the expected value of the output gap in the period ahead is not zero, it is important for fiscal policy to consider this in order not to deviate systematically from the surplus target. In addition, the Government has noted that asymmetry in the business cycle poses a risk for target achievement.<sup>44</sup>

Since the early 1980's Sweden has suffered two severe recessions, one in connection with the crisis of the 1990's, the other with the financial crisis of 2008 and its aftermath in Europe. In the NIER's analysis, the output gap averaged  $-1.0$  percent during the period 1980–2012 (see Diagram 56). If the analysis is limited to a period of completed economic cycles, the average output gap is somewhat less negative. In the period 1980–2006, three completed economic cycles can be defined, beginning with peak year 1980 and ending just before peak year 2007. Similarly, there is the period 1983–2008, beginning in trough year 1983 and ending just before trough year 2009. The average of the NIER's calculated output gap for these two periods is roughly  $-0.8$  percent and  $-0.7$  percent, respectively.

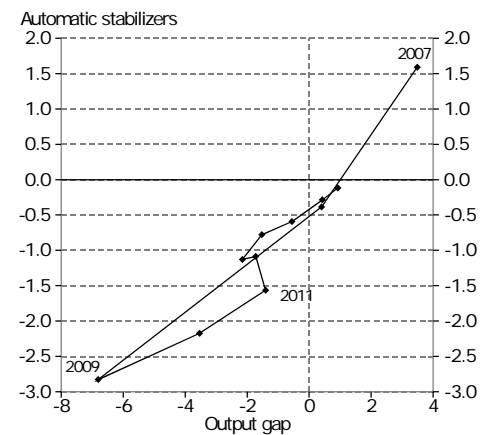
<sup>42</sup> The output gap is a measure of resource utilization in the economy. The output gap is defined as the percentage deviation between the actual level of output and the potential level of output (output with full resource utilization). Potential output is based on assessments of the potential levels of hours worked and productivity.

<sup>43</sup> Automatic stabilizers are calculated as the difference between actual net lending and cyclically adjusted net lending as a share of potential output. The correlation between automatic stabilizers and the output gap does not pass through the origin of the graph. This is explained by the fact that the unemployment gap often closes later than that output gap, with the result that expenditure related to unemployment is still at a cyclically high level.

<sup>44</sup> See "The Swedish fiscal policy framework", [www.government.se](http://www.government.se) (English translation of the Government letter "Ramverk för finanspolitiken", skr 2010/11: 79).

**Diagram 54 Automatic Stabilizers and Output Gap 2007–2017**

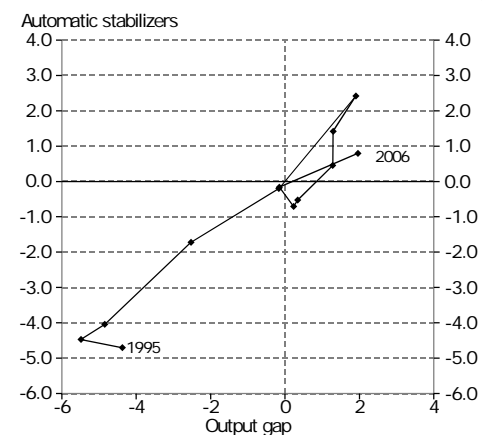
Percent of GDP and of potential GDP, respectively



Note. Automatic stabilizers are calculated as the difference between net lending and cyclically adjusted net lending, in percent of potential GDP  
Source: NIER.

**Diagram 55 Automatic Stabilizers and Output Gap 1995–2006**

Percent of GDP and of potential GDP, respectively



Note. Automatic stabilizers are calculated as the difference between net lending and cyclically adjusted net lending, in percent of potential GDP  
Source: NIER.

**Diagram 56 Output Gap**

Percent of potential GDP



Sources: Statistics Sweden and NIER.

One argument for an asymmetric business cycle is that the relationship between prices and resource utilization, the so-called Phillips curve, is not linear. A positive demand shock that pushes unemployment down below equilibrium will tend to drive up the rate of increase in earnings and inflation. If the Riksbank responds symmetrically to deviations of inflation, unemployment will then exceed equilibrium unemployment, on average, even when the future cyclical shocks are symmetric. This will contribute to a negative output gap on average.

In the NIER's assessment, the expected value of the output gap in the period ahead will be somewhat less negative than the historical averages noted above. One argument for this contention is that the Swedish economy underwent comprehensive structural change during the 1990's that included a change of fiscal policy regime and consolidation of public debt. The average output gap since 1980 has been affected both by the overheating in the final years of the 1980's and by the crisis of the 1990's. Admittedly, Sweden will face structural change and severe crises in the future as well, but probably not quite as often as in the last 30 years. The NIER's assessment is that the target level for cyclically adjusted net lending should be adjusted for a future output gap averaging  $-0.5$  percent.

#### THE SURPLUS TARGET AND ASYMMETRIC ECONOMIC CYCLES

Given an average output gap of  $-0.5$  percent and a budget elasticity of 0.4, the automatic stabilizers will contribute an average of  $-0.2$  percent of GDP to net lending in the period ahead. It is therefore the NIER's assessment that cyclically adjusted net lending must reach 1.2 percent of potential GDP with the economy in cyclical balance in order to make it more likely that net lending in the future will amount to 1 percent of potential GDP over an economic cycle.

### Evaluation of Target Achievement

In order to determine whether the fiscal policy followed is in line with the surplus target, continued monitoring will be required. The fact that the surplus target is applied as an average to an economic cycle makes evaluation of target achievement more difficult, as the economic cycle is not directly measurable.

## THE GOVERNMENT'S INDICATORS

The Government has chosen two indicators for the forward-looking analysis of the surplus target: the seven-year indicator and structural net lending.<sup>45</sup> For the retrospective analysis the 10-year indicator is used.<sup>46</sup> According to the Government, these average indicators should be supplemented by an analysis of the corresponding averages for the output gap, for there is a risk that the indicators will be based on years characterized chiefly by recessions or an expanding economy.<sup>47</sup>

## THE NIER'S PRINCIPLE FOR EVALUATION OF TARGET ACHIEVEMENT

The NIER views the surplus target primarily as a forward-looking net target, not as an implied debt target. With an active fiscal policy, cyclically adjusted net lending will temporarily deviate from the level considered compatible with the surplus target in the longer term. Temporary deviations should not be adjusted procyclically, that is, in a way that will amplify fluctuations in the economic cycle. If cyclically adjusted net lending deviates from the level of 1.2 percent of potential GDP, the deviation should be corrected at the same rate as the development of the economic cycle. This is also consistent with the Government's interpretation of the surplus target as primarily a forward-looking target.

The NIER's principle for the fiscal policy forecast normally means that cyclically adjusted net lending, if it initially deviates from 1.2 percent of potential GDP, will gradually be adjusted and reach the long-term target level at the same rate as the output gap gradually closes and the economy reaches cyclical balance.<sup>48</sup> This principle means that the forecast fiscal policy is normally considered to be in line with the surplus target. The NIER's fiscal policy forecast follows the principle in the absence

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<sup>45</sup> The seven-year indicator is a centred seven-year mean for the net lending of the general government sector. Structural net lending is a measure of the net lending of the general government sector when the economy is in cyclical balance. Structural net lending takes into account resource utilization in the economy via budget elasticity. The calculation is performed at a more aggregated level than the NIER's calculation of cyclically adjusted net lending, which also takes into account the composition of the tax bases, but both have the same purpose.

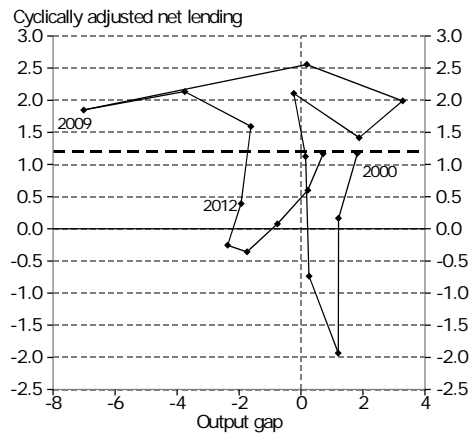
<sup>46</sup> The 10-year indicator is a 10-year moving average for net lending.

<sup>47</sup> The Government emphasized that the surplus target should be viewed primarily as a forward-looking target, since considerable importance is attached to the target as a kind of buffer saving. The Government sees a need to look backward in order to identify any systematic deviations from the target. Corrections, according to the Government, should not be made mechanically so that fiscal policy becomes procyclical, that is, reinforces cyclical variations.

<sup>48</sup> In case of extremely large deviations from the target level, however, a forecast where cyclically adjusted net lending reaches 1.2 percent of potential output with the economy in cyclical balance would be unrealistic.

**Diagram 57 Cyclically Adjusted Net Lending and Output Gap**

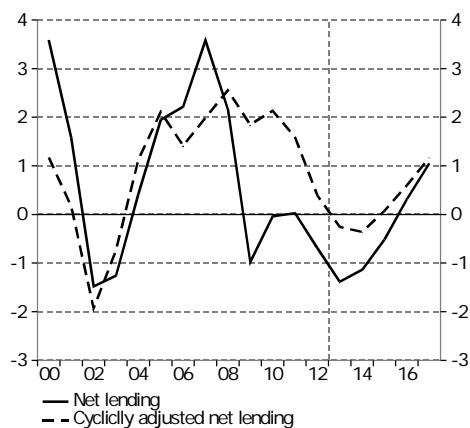
Percent of potential GDP



Source: NIER.

**Diagram 58 General Government Net Lending**

Percent of GDP and of potential GDP, respectively



Sources: Statistics Sweden and NIER.

of strong evidence that fiscal policy will be given a stance that deviates from this path.

#### ASSESSMENT OF TARGET ACHIEVEMENT

Since the surplus target was introduced in 2000, cyclically adjusted net lending has deviated temporarily from the long-term level. Net lending has been both higher and lower than the long-term level (see Diagram 57). Two periods are evaluated: the entire period since the target was introduced (2000–2012) and the period since the Alliance government took office (2007–2013). The shorter period also includes forecast year 2013 since the Government's latest Budget Bill is then included in the evaluation.

Net lending averaged 0.9 percent of GDP during the period 2000–2012, that is, close to the level of the surplus target. The output gap averaged  $-0.7$  during the period, a level near the long-term expected value of  $-0.5$  percent. Cyclically adjusted net lending during the same period averages 1.1 percent, which is also close to the long-term target level of 1.2 percent. All factors considered, the NIER finds that fiscal policy has been conducted in consistency with the surplus target during the period 2000–2012.

**Table 16 Average General Government Net Lending**

Percent

	2000–2012	2007–2013
Cyclically adjusted net lending <sup>1</sup>	1.1	1.5
Net lending <sup>2</sup>	0.9	0.4
Output gap <sup>1</sup>	$-0.7$	$-2.2$

<sup>1</sup> Percent of potential GDP. <sup>2</sup> Percent of GDP.

Sources: Statistics Sweden and NIER.

Net lending during the period 2007–2013 averaged 0.4 percent of GDP, or less than 1 percent. The output gap however, averages  $-2.2$  percent. Thus the state of the economy has been considerably weaker than the estimated expected value of  $-0.5$  percent, and net lending has been low because of large automatic stabilizers. Cyclically adjusted net lending during the same period is 1.5 percent of potential GDP and thus above the target level of 1.2 percent. A certain deviation from the target is indicated by the fact that cyclically adjusted net lending exceeds the target level at the same time as the output gap has been less than its expected value. One interpretation is that the Government has followed an excessively tight fiscal policy on average since 2007 in relation to the surplus target.

However, it is primarily up until 2010 that cyclically adjusted net lending has been relatively high. This is accounted for, in part, by the rapidly declining expenditure for ill health. Since 2011 fiscal policy has been clearly expansionary, and cyclically adjusted net lending is expected to drop below zero in 2013. (see Diagram 58). This means a relatively large deviation from the long-term target level. For the long-term target level to be reached again will require that fiscal policy be tightened as the economy improves. The NIER's forecast is that fiscal policy will be given a contractionary stance beginning in 2015 and that cyclically adjusted net lending will reach 1.2 percent of potential GDP in 2017 (see Diagram 58).

