# Svante Öberg: Economic conditions for wage formation

Speech by Mr Svante Öberg, First Deputy Governor of the Sveriges Riksbank, at the National Mediation Office, Stockholm, 16 June 2011.

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The Riksbank's task is to maintain a low and stable level of inflation. But the development of wages affects inflation and inflation affects the development of wages. Wage formation and monetary policy are consequently connected, and, consequently, the Riksbank monitors wage formation with great attentiveness.

The message of my speech today can be summarised by two points:

- Wage formation has worked well since the mid-1990s, and my assessment is that it will continue to work well in the years ahead.
- But if wage increases were to be slightly less than the approximately 3.5 per cent per year that the Riksbank estimated in April, not only inflation and unemployment could be lower, but so could interest rates.

I will start by taking a look back at wage formation over the last 40 years. Following this, I will address the economic conditions for wage formation in the years ahead. I will base this on the Riksbank's most recent forecast for Sweden's economy, from April.

## A look back at wage formation over the last 40 years

## Wage formation did not work well in the 1970s and 1980s

Following the "record years" of the 1960s, a period of weaker development for Sweden's economy began in the mid-1970s. This was partly the result of the deterioration of external conditions in the wake of the oil crisis of 1973. This gave rise to an international recession.

At that time, we had a fixed exchange rate in principle. Having left the Bretton Woods fixed exchange rate cooperation in 1971, Sweden joined the so-called currency snake in 1973. This entailed a fixed exchange rate against the D-mark in particular. The idea was that wages and prices would then increase in line with their equivalents in Germany and that the fixed exchange rate would act as a "nominal anchor". This strategy did not work. From the mid-1970s until the early 1990s, inflation was significantly higher than in Germany (see Figure 1).

Wages also increased faster than among our competitors and the competitiveness of the Swedish economy was weakened. Price clauses in wage agreements meant that wages were adjusted upwards at the prevailing rate of inflation, while wage clauses in the agreements meant that wages were adjusted upwards as a consequence of other, as yet unknown agreements. In this way, a price/wage spiral developed, in which expectations of high inflation were built in to the wage agreements. At the same time, in practice, not much was left in wage earners' wallets of these high wage increases, as they had been "eaten up" by the high rate of inflation. From the mid-1970s, real wages developed poorly (see Figure 2).

Sweden attempted to mitigate this impaired competitiveness through a series of devaluations. These devaluations meant that competitiveness could temporarily be strengthened. But in the long term, this strategy was unsustainable. Expectations that increased costs could be compensated for though devaluations weakened the incentive for restraint in price and wage formation. Put rather simply, for a devaluation to be successful, price and wage increases after the devaluation must return to the same level as among competitors. Sweden never succeeded with this in the 1970s and 1980s.

The two larger devaluations of the early 1980s were followed by the deregulation of the credit market in the mid-1980s. This was followed by the dramatic expansion of credit and rapidly increasing property prices. This led to the overheating of the Swedish economy, a property bubble that eventually burst, and, subsequently, the banking crisis of the early 1990s. Following increasingly persistent speculation on a new devaluation, the fixed exchange rate was abandoned in November 1992.

#### Wage formation has worked well since the mid-1990s

Since the mid-1990s, conditions for the strong development of the Swedish economy have improved significantly, compared with the 1970s and 1980s. In particular, three important changes have taken place.

Firstly, the framework for fiscal policy has improved. After the crisis and the large public finance deficit at the start of the 1990s, a new fiscal policy framework was established. This consists of three parts: an expenditure ceiling entailing that the Riksbank annually sets up an upper limit for nominal government expenditure for the next three years, a surplus target requiring public finances to have a surplus of one per cent of GDP over an economic cycle<sup>1</sup> and a stipulation that municipal and county council budgets may not have deficits. This framework has worked well. Unlike many other countries, Sweden was able to enter the most recent financial crisis with a large public finance surplus.

Secondly, the monetary policy regime has been changed. Instead of a fixed exchange rate, we now have a floating exchange rate and an inflation target. After the fixed exchange rate was abandoned in November 1992, the Riksbank decided in January 1993 on a new "nominal anchor" in the form of an inflation target of 2 per cent, to apply from 1995. The new monetary policy regime has worked significantly better than the old one with the fixed exchange rate. Inflation has decreased considerably since the 1970s and 1980s (see Figure 3). In addition, this has not been at the cost of lower average GDP growth than previously. On the contrary, since the mid-1990s, GDP growth has been higher than it was in the 1970s and 1980s.

Thirdly, and perhaps not as widely-known, wage formation has improved since the mid-1990s. The changes had already started by the early 1990s. The Rehnberg Agreements of 1991–1992 resulted in significantly lower agreed wages than previously and – more importantly – they removed the price and wage clauses from the agreements, thus contributing to breaking the price and wage spiral.

The Industrial Agreement of 1997 was another important change. The wage bargaining rounds of 1995 had resulted in relatively high wage increases of over 5 per cent per year for the following two years. This resulted in pressure from the government of the time on social partners to change wage formation through negotiation. The Industrial Agreement was exactly this kind of change. It assumes that the manufacturing sector, exposed as it is to international competition, should determine the level of wage increases. The Agreement also means that there are rules for the conducting of negotiations, for example that demands should be specified well ahead of the expiry of agreements and that the conclusion of negotiations should be supported by mediators, the so-called impartial chairman. There are also similar, but not as far-reaching, agreements in other sectors.

The National Mediation Office, which was set up in 2000, was another important change. As is widely known, the Office's tasks are to mediate in labour disputes and to actively promote efficient wage formation. The active promotion of efficient wage formation entails, among other tasks, ensuring that wage formation permits the strong growth of employment. In

The surplus target was originally 2 per cent of GDP, but this was later changed to 1 per cent, as a result of an EU decision to start recording premium pension fund saving as private saving rather than public saving.

addition, it is also responsible for the official wage statistics. I usually view the National Mediation Office as the third party in wage negotiations. The Office ensures that there is a neutral arena in which the parties can meet outside formal negotiations.

The outcome for wage earners has also been better in terms of higher real wage increases. Virtually no real wage increases took place during the 1970s and 1980s.

## The wage increases agreed upon in the wage bargaining rounds of 2007 were too high

The two most recent wage bargaining rounds have taken place under widely-differing circumstances. The wage bargaining rounds in 2007 took place at the crest of an economic boom, when the economic prospects were also strong for the following years, while the wage bargaining rounds in 2010 took place during a financial crisis and a deep recession.

The wage bargaining rounds for 2007 did not work well from an economic perspective. The agreed wages were too high. I myself was quite optimistic ahead of the negotiations. My assessment was that they could be carried out in good order and could result in wage increases in line with the Riksbank's inflation target. But the result of the wage bargaining rounds was surprisingly negative. The centrally-agreed wage increases for the agreement period 2007 to 2009 were almost 3 per cent per year, which is almost one percentage point higher than during the previous agreement period. Inflation increased and the Riksbank successively raised the repo rate from 3 per cent at the start of 2007 to 4.75 per cent in September 2008.

In addition, the financial crisis led the economic conditions to change radically during the agreement period. During the autumn of 2008, it became obvious that the financial crisis would also hit the Swedish economy hard. The Riksbank and other authorities made comprehensive efforts to prevent the Swedish banks from being dragged into the crisis. And, to alleviate the consequences of the crisis, the Riksbank rapidly lowered the repo rate to 0.25 per cent in July 2009. Even so, developments became clearly worse than expected. During 2009, GDP showed the greatest fall since the Second World War, while unemployment rose to almost 9 per cent at the end of 2009. This reaffirmed the conclusion that wage increases had been too high. On average, wages increased by 3.7 per cent during the years 2007 to 2009.

# The wages agreed for 2010 contributed towards preventing the crisis from being so deep in Sweden

In many ways, the wage bargaining rounds in 2010 were the direct opposite of the wage bargaining rounds in 2007. Developments were marked by the financial crisis, which resulted in low wage agreements which were largely in line with the Riksbank's forecasts. The crisis also meant that the commonest agreement period became two years instead of three years, as had been normal since 1995. The centrally-agreed wage increases were calculated to average 1.8 per cent per year in 2010 and 2011.

However, the economic recovery was significantly stronger in 2010 than most people had expected. The growth in GDP was the highest in 40 years. The labour market also developed above expectations. Among other reasons, this was because the decline in employment was primarily concentrated on the manufacturing sector, which is less labour-intensive than many other sectors. Furthermore, the so-called crisis agreements in the manufacturing sector contributed towards dampening the decrease of employment. Due to the low agreed wage increases, the wage bargaining rounds in 2010 probably contributed to the strong development of the Swedish economy we experienced in 2010 and the start of 2011. According to our present assessment, the average increase of hourly wages in 2010 and 2011 has been 2.8 per cent per year, which is 0.5 percentage points per year more than we had estimated before the wage bargaining rounds.

But at the same time, the wage bargaining rounds in 2010 entailed a couple of problems for future developments. One such problem was that the dates for the expiry of the various agreements became more spread out than before. In the manufacturing sector, the white-collar workers' collective agreement expires in September of this year, while the agreements for blue-collar workers run until the end of January 2012. This risks weakening the standard-setting role of the manufacturing industry. The social partners in the manufacturing sector have now agreed to coordinate the negotiations for blue-collar and white-collar workers so that the new agreements will be ready in November. This coordination should improve the prospects for agreements within the parts of the economy exposed to international competition to become normative for future wage bargaining rounds.

This is because I believe that it is positive if the parts of the business sector that are exposed to international competition set the standard for other parts of the economy. This part of the economy is the most clearly affected when wages increase too rapidly for Sweden to compete successfully on the world market. This also holds true when there is a floating exchange rate, as the inflation targets of our most important trading partners are largely the same and it cannot be assumed that a weakened krona would restore competitiveness after excessive wage increases.

The remaining problem is that other agreements will expire during the spring of 2012, a number of months after the first agreements. This means that the normative effect of the first agreements remains uncertain. Among other circumstances, it will depend on the level of coordination of negotiations between employers and employees.

Another problem was that Teknikföretagen, an employers' organisation in the engineering industry, revoked the Industrial Agreement last year. The Industrial Agreement is an important reason that wage formation has worked so well since the mid-1990s. The revocation of this Agreement by one of the signatories meant that the future of the Agreement became uncertain. This has been sorted out now, with a new proposed Industrial Agreement having been accepted by all parties except the Swedish Paper Workers' Union. I view the new Industrial Agreement as a success. It cements the principle that the parts of the business sector that are exposed to international competition should play a normative role in wage bargaining and gives the impartial chairmen a stronger role in the coordination within the manufacturing sector.

It is thus positive that there is a new Industrial Agreement. But there is reason to remind ourselves of our experiences from the wage bargaining rounds in 1995. The coordination of the demands from the Swedish Trade Union Confederation failed in these wage bargaining rounds. The Swedish Paper Workers' Union and the Employers' Federation of Swedish Forest Industries were first out then, and concluded a relatively high agreement that set the level for a large part of the labour market. The result of this was wage increases of over 5 per cent in the years 1996 and 1997, levels which were altogether too high in relation to the inflation target and the weak employment situation.

## The economic conditions for wage formation in the years ahead

I will now briefly present the Riksbank's assessment of economic development in recent years. I will refer to the most recently published forecast from April. Of course, quite a lot has happened since then, but, at the same time, two months later you don't normally know a great deal more about developments two to three years ahead. In any event, we will be publishing an updated assessment in the Monetary Policy Report in July.

## The international recovery is proceeding at a good rate

For the world as a whole, we expect to see a GDP growth of over 4 per cent per year for the next three years. This is a high growth rate from an historical perspective (see Figure 4). But

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developments across the world are divided, with weaker growth taking place in the developed economies and stronger growth in emerging economies.

The recovery of the United States and Europe is continuing at a fairly moderate pace. In the United States, GDP is now back to the level it was at before the crisis (see Figure 5). But the labour market has yet to recover. In the euro area, it seems likely to take a couple more years until GDP has returned to the same level as before the crisis. Growth in Europe is being restrained by the fiscal problems in several countries and the tightening of fiscal policies (see Figure 5).

In contrast, in the emerging economies, GDP growth is strong. These countries account for almost half of the world's GDP and for almost 70 per cent of the world's growth this year. China is expected to continue to grow by almost 10 per cent per year, and India by about 8 per cent over the years ahead. In the two other BRIC countries, Brazil and Russia, growth in the range of 4–5 per cent is expected (see Table 1).

Differences around the world are also extensive in terms of inflation. In the United States and the euro area, inflation has risen in recent years, primarily as a result of rising energy and commodity prices, but underlying inflation excluding these prices is still low. In the BRIC countries, on the other hand, inflation is high, and the monetary policies of these countries are now being tightened to avoid overheating (see Table 2).

However, there are also risks in international developments. The greatest risk for us in Sweden is probably whether the fiscal problems in certain euro area countries will lead to renewed turbulence on the financial markets. Greece, Ireland and Portugal have already received assistance from the EU and the International Monetary Fund (IMF), but it remains unclear whether Greece, in particular, will be able to repay its debts. Furthermore, the possibility that Spain may also encounter difficulties in managing its problems cannot be ruled out. Naturally, the outlook is also being affected by the political unease in North Africa and the Middle East and the repercussions of the natural disaster in Japan, but contagion effects have as yet been limited.

Another risk is that the strong growth in the world will push up prices for energy and commodities beyond expectations. A significant part of the rise in oil prices since February can be ascribed to uncertainty over how the supply of oil will be impacted by the political unease in North Africa and the Middle East. Essentially, however, it is the strong growth in Asia in particular that is making these commodity prices increase. This may result in higher inflation and lower growth in the United States, Europe and other developed economies.

#### The Swedish economy remains strong

The high rate of growth in Sweden in 2010 means that GDP has now returned to roughly the same level as prior to the financial crisis. This year, we expect a GDP growth of 4.6 per cent, while, for the next two years, we expect growth averaging 2.4 per cent per year (see Figure 6).

Employment is now increasing rapidly. Over the last year, it has increased by 120 000 jobs. This increase has primarily taken place in the service sector and the construction sector, which were not impacted so severely by the crisis. New statistics for the manufacturing sector, where employment has developed very weakly since the start of the crisis, also show that employment is increasing and that companies are planning for further new recruitment. We expect employment to continue to grow relatively strongly over the coming years (see Figure 7).

Unemployment is now decreasing rapidly. It has fallen by over one percentage point over the last year. Our assessment is that unemployment will continue to decrease towards just over 6 per cent by 2013 (see Figure 8).

CPI inflation is presently unusually high. This is primarily connected with the circumstance that we are now in a phase in which interest rates are being increased. Mortgage rates are included in the CPI and they are increasing at the same rate as the Riksbank raises the repo rate – or, recently, even slightly faster. We expect CPI inflation to remain high in the years ahead (see Figure 9).<sup>2</sup>

CPIF inflation (the CPI with a fixed interest rate) provides a better view of underlying inflationary pressures and shows that inflation is currently low. The effect of rising energy prices on inflation has so far been counteracted by the strengthening of the krona. However, the main reason for the low rate of inflation is the weak development of unit labour costs. Productivity has increased rapidly at the same time as the rate of increase in hourly wages has been low. Unit labour costs are expected to increase marginally in the present year, before returning to a more normal rate of increase at the end of the forecast period.

Inflation expectations are important to follow for the Riksbank, particularly in the present situation when the difference between CPI inflation and various measures of underlying inflation is great. Inflation expectations five years ahead have so far been stable and close to 2 per cent. This indicates strong confidence in the Riksbank's ability to meet its inflation target over the long term. On the other hand, inflation expectations one and two years ahead have increased significantly over the last 12 months. However, this is largely a consequence of an increase in the actual measured rate of inflation (see Figure 10). A matter of some concern ahead of the wage bargaining rounds may be that wage expectations also largely seem to be a consequence of the actual measured rate of inflation. I shall return to this shortly.

In light of this economic development, monetary policy has been aimed at successively increasing the repo rate towards a more normal level after the extremely low level it reached during the crisis. In April, we raised the repo rate by 0.25 percentage points for the sixth time in a row, to 1.75 per cent. Our assessment was that there is a need to continue to raise the repo rate in order to stabilise inflation at a level close to the inflation target of 2 per cent and to avoid too high a level of resource utilisation in the future (see Figure 11). However, as usual, we would like to add that uncertainty concerning the future is great and the interest rate path we have calculated is a forecast, not a promise.

#### Wage formation will probably continue to work well in the years ahead

The conditions are good for wage formation to continue to work well in the years ahead, just as it has since the mid-1990s. This is also the assumption made in the Riksbank's forecasts from April. The rapid improvement of the labour market means that the central agreements concluded in the autumn and next year are expected to reach higher levels than the agreements concluded last year. Wage increases over and above the central agreements ("wage drift") are also expected to contribute towards slightly faster wage increases. The Riksbank's assessment is that overall hourly wages will increase by about 3.5 per cent per year in 2012–2013, which is compatible with a CPIF inflation rate (inflation excluding interest rate changes) of close to 2 per cent at the end of the forecast period.<sup>3</sup>

But all forecasts are uncertain. This also applies to wage forecasts. It is normally easier to make good forecasts for the development of wages than it is for inflation. This is probably partially because, over time, there are smaller variations in wage growth than there are in inflation, and partially because wage agreements provide important information on future

See J. Johansson, S. Palmqvist and C. Selander, "The CPI will increase more rapidly than the CPIF over the next few years", Economic Commentary no. 5, 2011, Sveriges Riksbank.

Hourly wage costs are estimated to increase above hourly wages by 0.2 per cent per year. For the sake of simplicity, I have chosen to disregard this difference.

wage growth. Over the last 14 years, the Riksbank has had an average forecast error of 0.4 percentage points in its spring forecasts of the next year's wages. However, the error has been significantly larger in certain years. Wage increases in the years ahead will ultimately be determined both by the final agreements and by economic developments.

There is a risk that the rapid improvement of the labour market will push up wage increases faster than we have calculated. This applies to both agreed wages and wages over and above agreement. There are signs that matching on the labour market may have deteriorated. Labour market shortages are increasing rapidly, even though unemployment is still relatively high (see Figure 12).

The Beveridge curve, which shows the connection between unemployment and vacancies, also indicates impaired matching. On previous occasions when the vacancy rate has been at the current high level, unemployment has been just below 6 per cent. However, it is too early to draw any far-reaching conclusions, as it is a normal cyclical phenomenon for matching to become impaired during the recovery from a recession (see Figure 13).

Another risk that I have already mentioned is that the high level of CPI inflation may be influencing inflation and wage expectations. Even if underlying CPIF inflation is low, the CPI is increasing rapidly as a result of interest rate increases. The forecast for CPI inflation is close to 3 per cent over the next three years, and will probably continue to be high for a couple more years. There is thus a risk that the high level of CPI inflation will push up inflation and wage expectations. Wage expectations are closely linked to inflation expectations, which, in turn, are largely determined by the inflation outcome – and wage expectations have increased recently (see Figure 14).

It is important to emphasise that the high level of CPI inflation is a temporary effect. This is a delayed consequence of the low level of the repo rate during the crisis. When we first lowered the repo rate sharply, CPI inflation was negative for at least a year. Over the last year, the repo rate has successively been raised, which is instead contributing towards increasing CPI inflation. A better measure of inflationary pressures at present is provided by CPIF inflation.

#### The wage growth rate influences inflation, unemployment and interest rates

In the Riksbank's most recent forecast, we estimate that hourly wages will increase by about 3.5 per cent per year in 2012 and 2013, and that this corresponds with underlying CPIF inflation of close to 2 per cent towards the end of the forecast period. At the same time, unemployment will only fall to just above 6 per cent at the end of the forecast period.

The National Institute of Economic Research's most recent report of wage formation, from May of this year, presents calculations of the impact of the size of wage increases on inflation and employment. These indicate that wage increases would have to be limited to about 3 per cent per year in 2012–2014 for unemployment to be sustainably decreased to 5 per cent, in accordance with the government's ambitions. I assume that we will be hearing more about this later today.

The Riksbank has made similar calculations that also indicate a connection between wage trends, inflation and unemployment. The basic mechanism in these calculations is that higher wage increases lead to increased costs for companies. If companies wish to retain profitability, they have to choose between raising their prices or decreasing their personnel costs by reducing employee numbers. The most likely scenario is that a combination of these measures will be adopted. Inflation will increase and employment will decrease. To meet the

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When interpreting the figure, it may be useful to know that Prospera's wage expectations systematically underestimate wage trends by around 0.5 percentage points.

inflation target in such a situation, the Riksbank would have to raise the repo rate more rapidly. This would further dampen employment.

However, the result also depends on the reason for the higher wage increases. If these are due to the stronger development of productivity, costs will not increase and the intensifying effects on inflation and unemployment will not be experienced.

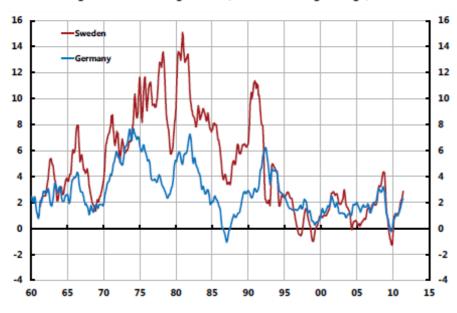
My assessment is still that if wage increases were to be slightly lower than the approximately 3.5 per cent per year in 2012 and 2013 that the Riksbank estimated in its April forecast, not only inflation and unemployment, but also interest rates, could be lower. This would be preferable from the wider perspective of welfare. It would also reduce the risk that increasing energy and commodity prices or rising inflation and wage expectations will push up inflation beyond our expectations.

#### Conclusion

The Riksbank is not a party in the collective bargaining process. It is the social partners that conclude the agreements. But monetary policy aims to maintain a low and stable level of inflation. This job is made easier if wage formation works well. The effective functioning of wage formation since the mid-1990s is due to the improvement of both the conditions for wage formation and wage formation itself. The Riksbank's assessment is that wage formation will continue to work well in the years ahead. I therefore look ahead to the approaching wage bargaining rounds with confidence.

#### 1. Inflation in Sweden and Germany

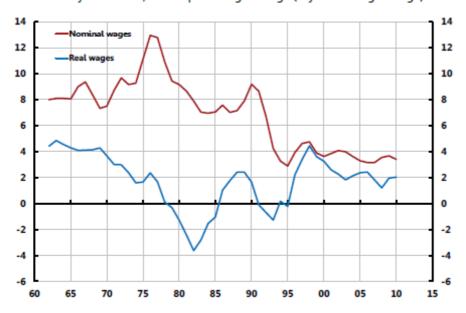
Percentage 12-month change in CPI (3-month moving average)



Source: OECD

# 2. Hourly wages

Economy as a whole, annual percentage change (3-year moving average)

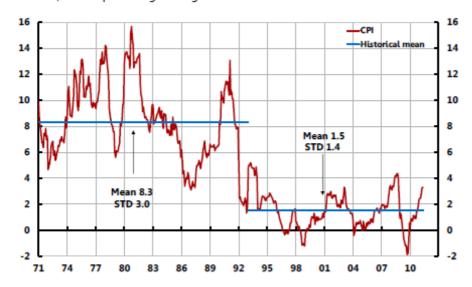


Note. CPI-deflated real wage.

Sources: National Institute of Economic Research and National Mediation Office

#### 3. Lower inflation since 1993

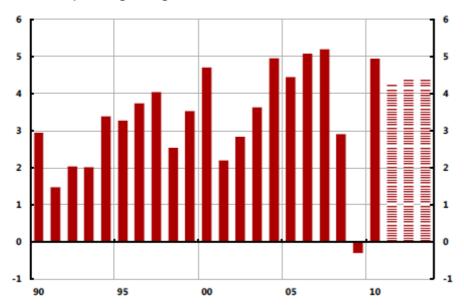
CPI, annual percentage change



Source: Statistics Sweden

# 4. Global GDP growth

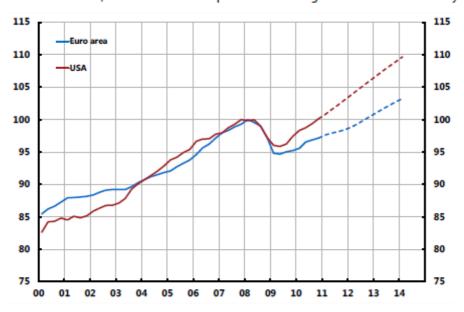
Annual percentage change



Sources: The IMF and the Riksbank

# 5. GDP in the United States and the euro area

Level of GDP, index = 100 for the quarter with the highest level for each country



Sources: Bureau of Economic Analysis, Eurostat and the Riksbank

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Table 1. Global GDP growth in the BRIC countries

Annual percentage change

	2009	2010	2011	2012	2013
Brazil	-0.6	7.5	4.5	4.1	4.1
Russia	-7.8	4.0	4.8	4.5	4.3
India	6.8	10.4	8.2	7.8	8.2
China	9.2	10.3	9.6	9.5	9.5

Source: The IMF

Table 2. Inflation

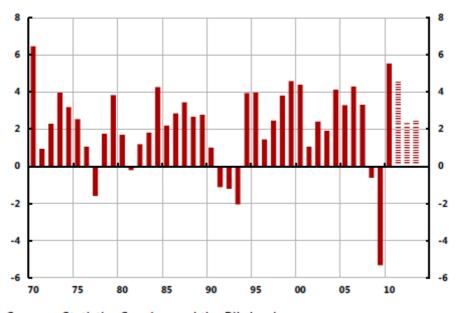
Annual percentage change

	2009	2010	2011	2012	2013
BRIC	6.7	7.1	7.0	5.5	4.6
Euro area	0.3	1.6	2.2	1.5	1.8
USA	-0.3	1.6	2.5	1.9	2.0

Sources: The IMF and the Riksbank

# 6. GDP growth in Sweden

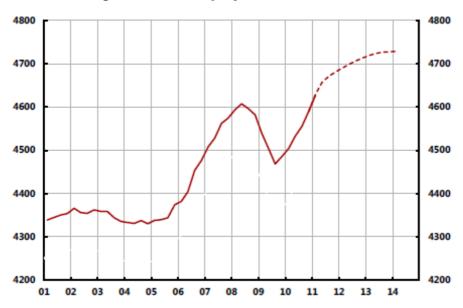
Annual percentage change



Sources: Statistics Sweden and the Riksbank

# 7. Employment

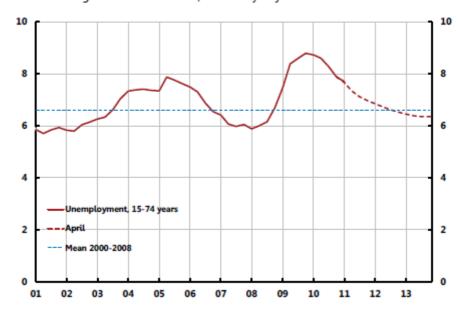
Thousands, ages 15-74, seasonally-adjusted data



Sources: Statistics Sweden and the Riksbank

# 8. Unemployment

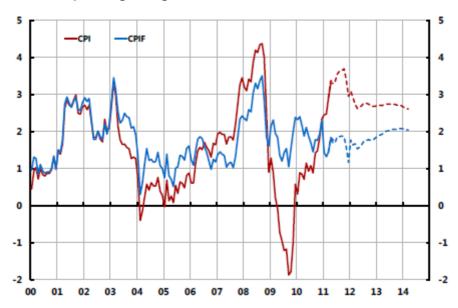
Percentage of the labour force, seasonally-adjusted data



Sources: Statistics Sweden and the Riksbank

## 9. CPI and CPIF

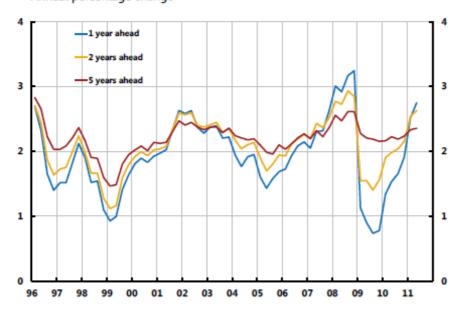
Annual percentage change



Sources: Statistics Sweden and the Riksbank

# 10. Inflation expectations

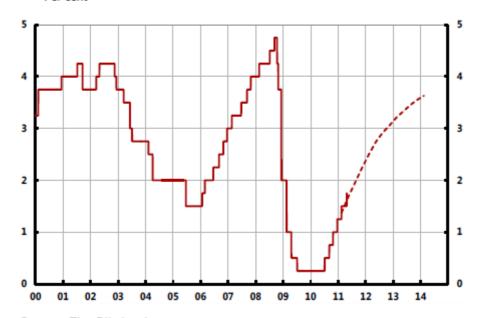
Annual percentage change



Source: TNS SIFO Prospera

# 11. Repo rate

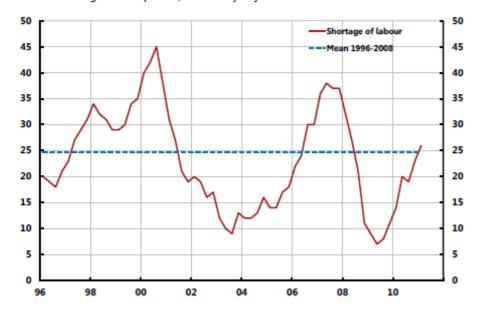
Per cent



Source: The Riksbank

# 12. Labour shortages

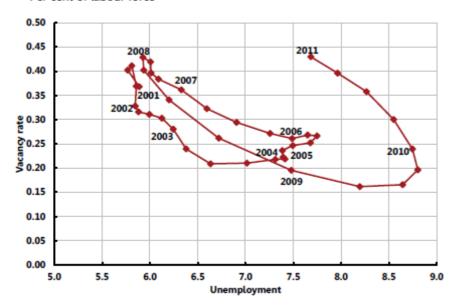
Percentage of companies, seasonally adjusted data



Sources: National Institute of Economic Research and the Riksbank

# 13. The Beveridge curve

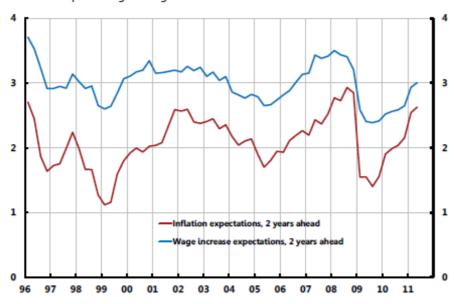
Per cent of labour force



Sources: Statistics Sweden and the Riksbank

# 14. Wage and inflation expectations

Annual percentage change



Source: TNS SIFO Prospera