



Wage Formation in Sweden
2015

A summary of
Lönebildningsrapporten 2015

The National Institute of Economic Research (NIER) is a Swedish government agency accountable to the Ministry of Finance. We produce forecasts to support decisions on economic policy in Sweden, analyse economic developments and conduct economic research.

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Wage Formation in Sweden is a summary of the Institute's annual report *Lönebildningsrapporten* (in Swedish), analysing the economic conditions for wage formation in Sweden.

The forecast presented in *Wage Formation in Sweden 2015* is an update of the forecast published in *The Swedish Economy, August 2015*. The calculations were finalised on 18 September 2015. A full forecast data set for this update can be found at the website.

Summary of the report

The next major round of collective bargaining is around the corner, with collective agreements covering around 3 million workers in Sweden due to be renegotiated in the first half of 2016. The coming years will see a strong supply of labour and weak productivity growth. The social partners can hasten a return to lower unemployment through wage formation with support from expansionary monetary policy, but monetary leeway will be limited in the near term. There will therefore be little scope for wage restraint to be counterbalanced by more expansionary monetary policy. In this situation, very low pay increases could lead to higher unemployment. Wage dispersion is low in Sweden compared to other countries, and minimum wages are high. This means that those with limited education and little relevant employment experience struggle to gain a foothold in the labour market. The social partners can help lower the thresholds for entry into the labour market by adjusting minimum wages.

Wage Formation in Sweden 2015 presents the economic background to wage formation and the coming round of collective bargaining. The aim of the report is to assist the social partners and the National Mediation Office with high-quality analysis. The NIER expresses no opinion on how wages and salaries should develop.¹

The report begins with a chapter reviewing the economic background to next year's round of wage bargaining. This is followed by a chapter analysing how quickly labour costs can rise when resource utilisation in the economy is normal. The final chapter looks at the functioning of the labour market with the emphasis on unemployment, minimum wages and active labour market policies. There are also a number of special analyses presenting the NIER's assessment of profitability and productivity growth in the business sector, and a survey of teachers' pay which serves as an example of how switching to more decentralised wage formation can affect pay levels.

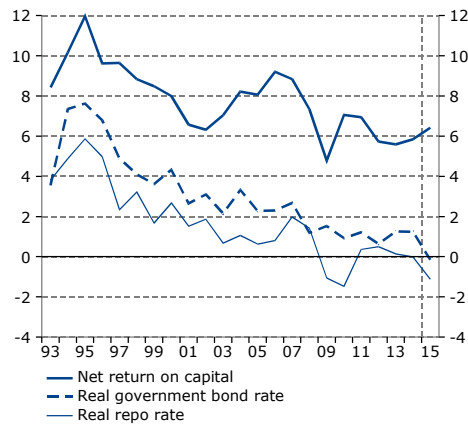
1.1 The economic background to the 2016 round of wage bargaining

The social partners normally conclude agreements covering several years at a time, which means that both the current economic climate and the outlook need to be taken into account. Chapter 2 analyses the current situation, partly by looking at

¹ The key factor for wage formation is not wages but labour costs (see, for example, the special analysis in *Wage Formation in Sweden 2010*). Labour costs include not only hourly wages but also other costs, in particular employers' social security contributions. The present report uses "wages" and "labour costs" interchangeably.

Diagram 1 Return on capital and real interest rate

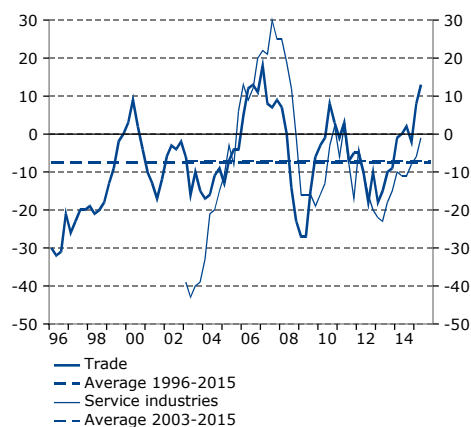
Per cent, net operating surplus as a share of the real capital stock, and 10-year government bond rate minus concurrent CPIIF inflation



Sources: Statistics Sweden, The Riksbank and NIER.

Diagram 2 Profitability in trade and service industries

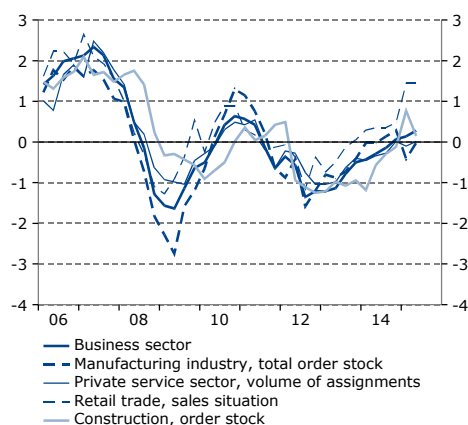
Balances, seasonally adjusted quarterly values



Source: NIER.

Diagram 3 Demand, assessment of present situation

Standardised deviations from mean, seasonally adjusted quarterly values



Note. The series represent an assessment of the current demand situation. Calculations start in 1996 (2003 for private services).

Source: NIER.

firms’ own assessment of demand and profitability. The NIER’s main scenario for 2015–2019 is presented with a special focus on developments in productivity and inflation, and a number of alternative scenarios look at how unemployment would move given various assumptions for wage growth and monetary policy.

FIRMS REPORTING NORMAL PROFITABILITY

One important factor when the social partners are negotiating wages is firms’ current profitability. Return on capital as recorded in the national accounts is a useful measure in this respect and has been largely unchanged since 2012 after falling from the mid-1990s (see Diagram 1). This might suggest that profitability is currently low. It is important to remember, however, that the return required by the owners of capital is the sum of a risk-free rate and a risk premium. As can be seen from Diagram 1, the risk-free rate has fallen even further than return on capital. In this light, the drop in return on capital is unremarkable. In addition, a number of large Swedish companies have lowered their required rate of return in recent years, which is in line with movements in the risk-free rate.

The NIER’s Business Tendency Survey asks firms for an assessment of their profitability. Diagram 2 shows that retailers are much more satisfied with their profitability than normal, while the assessment of profitability in the service and manufacturing sectors is roughly in line with the historical average.

On balance, the NIER believes that there are no significant deviations from normal profitability in the business sector as a whole going into the 2016 collective bargaining process.

FIRMS REPORTING NORMAL DEMAND

Firms’ view of demand has trended upwards since 2012 (see Diagram 3). In the business sector as a whole, firms are currently reporting normal levels. Demand is higher than average in the retail trade, but more or less average in the construction, service and manufacturing sectors.

The NIER’s Economic Tendency Indicator, which combines the short-term expectations of both firms and consumers, points to slightly stronger growth than normal in the coming quarters.

The NIER believes that there are still idle resources in the labour market, contributing to a negative output gap in the second half of 2015. The global economy is set to strengthen, and demand for Swedish exports will increase. Particularly important for these exports is the anticipated cyclical upturn in investment in the euro area. Coupled with strong domestic demand, this will help GDP growth to average almost 3 per cent per year in 2015–2017. As a result, unemployment will fall back towards its equilibrium level of just under 7 per cent (see Diagram 4).

WEAK PRODUCTIVITY GROWTH IN THE COMING YEARS

Productivity growth in Sweden, as in many other OECD countries, has been very weak since 2007 (see Diagram 5). Although productivity growth is set to trend upwards somewhat, it is forecast to remain relatively weak over the next few years, again as in many other OECD countries. Productivity growth in the business sector is expected to average 1.5 per cent per year in 2016–2019, as against 2.7 per cent per year in the period 1980–2006. This weak productivity growth will be a limiting factor for real wages.

INFLATION TARGET EXPECTED TO REMAIN THE NOMINAL ANCHOR FOR WAGE FORMATION DESPITE LOW CPI INFLATION IN RECENT YEARS

The role of the inflation target as an anchor for price formation is an important factor in how labour costs can move. The inflation target affects all prices in the economy. The relevant measure of prices when assessing how quickly labour costs can increase is the price of value added – in other words, prices for production in the business sector (adjusted for prices for intermediates consumed). As set out in Chapter 3, the price of value added will increase by around 1.6 per cent per year when the economy is in equilibrium and inflation is at 2 per cent.

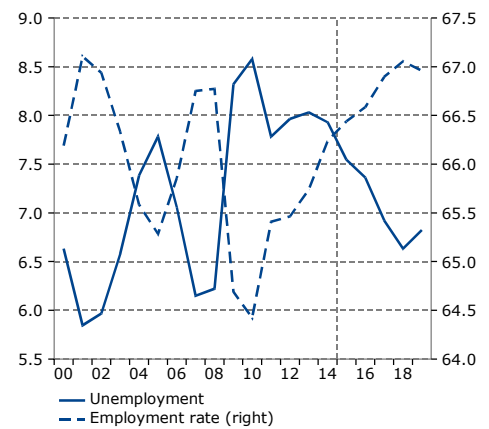
Inflation as measured by both the CPI and the CPIF (CPI with a fixed interest rate) has undershot the target both in recent years and on average since 1997 (see Diagram 6). It is on the way up, however, and the CPIF is expected to increase by almost 2 per cent per year on average in 2016–2019. The price of value added is also expected to rise somewhat more quickly, due partly to the stronger economic climate and partly to the Riksbank having clearly communicated since April 2014 that the inflation target is its foremost priority. The Riksbank is prepared to act quickly with more expansionary monetary policy if inflation is unexpectedly low. As the economy strengthens, unit labour costs will rise more quickly and firms will increase their margins. Changes to fuel taxes and a lower ROT tax deduction for home improvements will also contribute to higher inflation in 2016.

WAGES, MONETARY POLICY AND EMPLOYMENT INTERLINKED

There are three main channels through which wages impact on employment: firms' costs are affected directly via wage costs, household incomes are affected, and both households and firms are affected indirectly via monetary policy as the Riksbank attempts to meet the inflation target. It is often assumed that the direct cost channel and the indirect channel via monetary policy dominate the direct impact of higher wages on demand. This

Diagram 4 Unemployment and employment rate

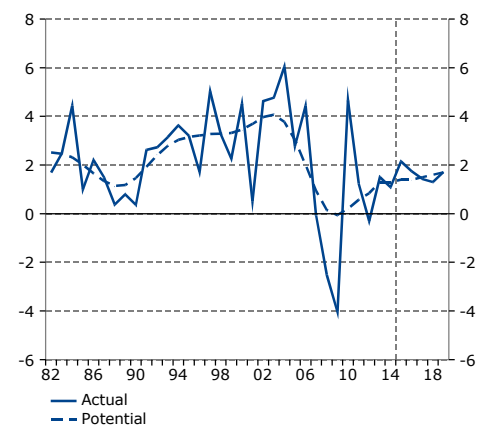
Per cent of labour force and per cent of population, age 15–74, respectively



Sources: Statistics Sweden and NIER.

Diagram 5 Actual and potential productivity in business sector

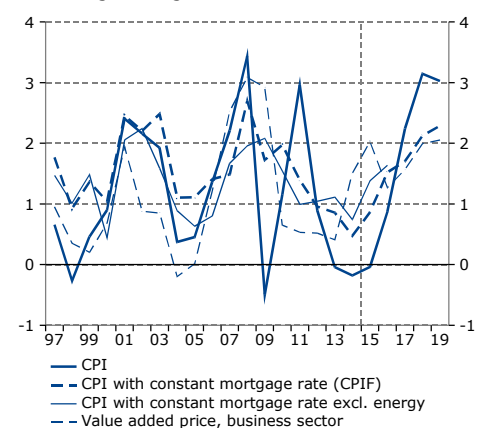
Percentage change, calendar-adjusted values



Sources: Statistics Sweden and NIER.

Diagram 6 Inflation and business sector value added price

Percentage change



Sources: Statistics Sweden and NIER.

means that higher wages are normally expected to lead to weaker employment growth in the short term.

A reduction in equilibrium unemployment can normally be achieved if the social partners aim for wage restraint in the economy as a whole over a number of years. This leads to a gradual increase in demand for labour as firms invest and expand their production capacity on the back of lower wage growth and more expansionary monetary policy. For unemployment to be permanently reduced, wage growth must not exceed the structural rate once the new lower level of unemployment has been reached.

There will, however, be limited monetary leeway in the near term. The repo rate is negative, and it is unclear how much looser monetary policy can be made, even with unconventional measures. There is therefore limited scope at present for very low wage increases to be counterbalanced by more expansionary monetary policy.

VERY LOW PAY INCREASES CAN PRODUCE HIGHER UNEMPLOYMENT WHEN MONETARY LEEWAY IS RESTRICTED

Chapter 2 of the report presents model estimates illustrating the importance of monetary policy for the relationship between wages and employment. So that there are stable ground rules for the wage negotiations, one conclusion therefore is that it is important for the Riksbank to communicate clearly how monetary policy will respond to different trajectories for wages and inflation, not least when the repo rate is negative at the outset. Another conclusion is that it is less likely than normal that very low wage growth will result in lower unemployment in the current monetary climate.

The model estimates also show that, although the effects of different rates of wage growth on unemployment are relatively small, the effects on inflation may be considerable. With a lower rate of wage growth than in our main scenario and unchanged monetary policy, inflation would be much lower on average in the period 2016–2019. This could mean that inflation expectations fall further from already low levels and that the credibility of the inflation target is undermined.

1.2 Structural growth in labour costs

The structural rate of growth in labour costs shows how quickly labour costs can increase when resource utilisation in the economy is normal. Normal resource utilisation refers to a situation where unemployment is in line with equilibrium unemployment, demand is normal, the inflation target is credible and achieved so that inflation is at 2 per cent, and both interest rates and firms'

earnings are normal. Structural rates can vary over time: for example, structural productivity growth is affected by global technological advances and changes in the composition of the labour force.

Structural growth in labour costs is determined by structural growth in labour productivity and the price of value added in the business sector (see Figure 1). The CPI is not a relevant measure of prices in this context because it is not representative of production in the business sector, whereas the price of value added is.

Actual growth in labour costs may depart from the structural rate, for example due to cyclical variations.

WEAK STRUCTURAL PRODUCTIVITY GROWTH IN 2016–2019

One of the two cornerstones for how labour costs can increase structurally is therefore productivity growth. Estimates of how quickly productivity will increase are by their very nature uncertain.

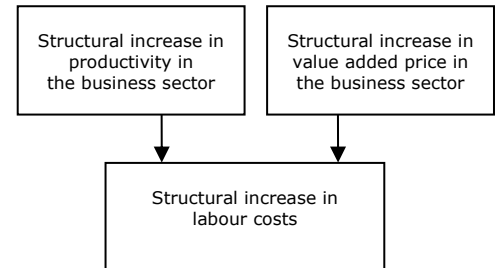
The NIER's assessment of future structural productivity growth is based on historical developments. This means that productivity in the business sector in the long term – from 2024 onwards – is expected to increase in line with the historical average of 2.1 per cent per year. For the next few years, however, structural productivity in the business sector is expected to grow more slowly. In the business sector as a whole, structural productivity growth is forecast to average 1.6 per cent per year in 2016–2019.

This relatively low productivity growth is a result of the enduring effects of low investment and slow technological advances since 2007.

PRICE OF VALUE ADDED TO INCREASE AT A NORMAL RATE IN 2016–2019

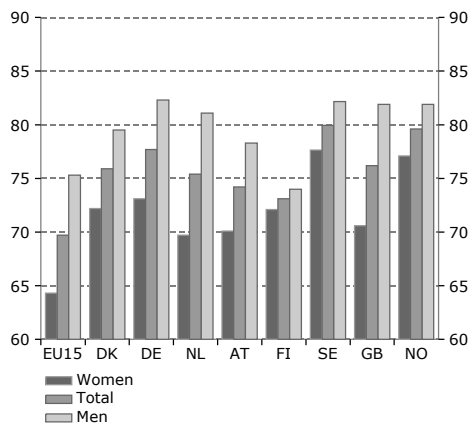
The other cornerstone for how labour costs can increase is movements in the price of value added in the business sector. The price of value added is a measure of value added in current prices per unit produced. Value added in current prices can be divided into two components: how many units are produced (volume of value added) and what each unit costs (price of value added). The price of value added in the business sector will rise by an average of 1.6 per cent per year in 2016–2019 (see Diagram 6).² This is the same rate of increase as when the economy is in equilibrium.

Figure 1 Determinants of structural growth in labour costs



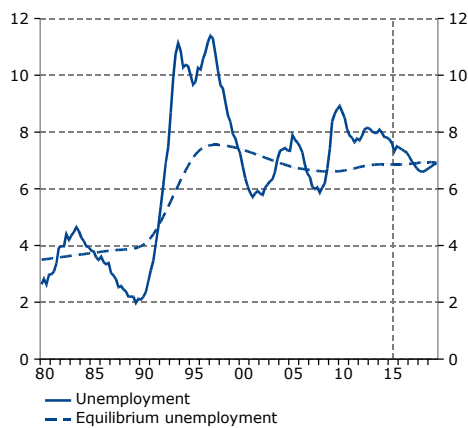
² Excluding sectors where land can be assumed to be a key factor of production, such as the extractive industries and "one and two family houses and secondary homes", where there is no actual production in the business sector.

Diagram 7 Employment rate in EU and Norway 2014, age 20–64
Per cent of population



Sources: Eurostat, Statistics Sweden and NIER.

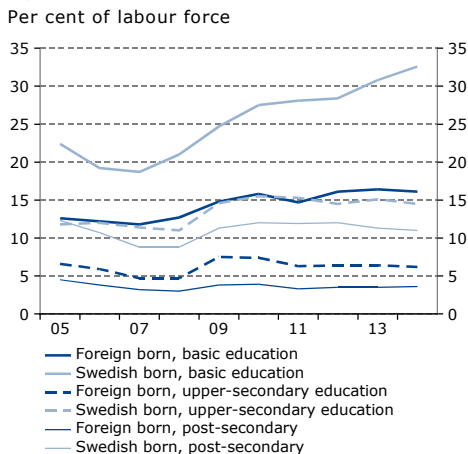
Diagram 8 Unemployment and equilibrium unemployment
Per cent of labour force, seasonally adjusted quarterly values



Note. 15–74 age group. Data before 2001 linked by NIER.

Sources: Statistics Sweden and NIER.

Diagram 9 Unemployment by highest educational level attained, age 15–74
Per cent of labour force



Source: Statistics Sweden.

LABOUR COSTS TO CLIMB JUST OVER 3 PER CENT PER YEAR ON AVERAGE IN 2016–2019

The NIER therefore forecasts that labour costs will grow by 3.2 per cent per year on average in structural terms in 2016–2019. This is relatively slowly by historical standards. The reason is that structural productivity growth is currently weak, and the return to more normal levels will be a slow process.

1.3 Composition of unemployment and wage structure

HIGH EMPLOYMENT RATE BUT ALSO HIGH UNEMPLOYMENT

The employment rate – defined as the number of employed as a share of the population aged 15–74 – is high in Sweden relative to other countries (see Diagram 7). Unemployment, meanwhile, is also high (see Diagram 8). This applies particularly to certain groups with limited education and little relevant employment experience (see Diagram 9). There has been a major expansion of the labour force in recent years, which is positive for employment in the longer term. In the short term, however, unemployment will normally increase when there are large inflows into the labour force, as it takes time for new entrants to find work. The adjustment process will take longer because the new entrants have a lower job-finding rate than normal. The NIER believes that equilibrium unemployment is currently just under 7 per cent (see Diagram 8).

COMPRESSED WAGE STRUCTURE IN SWEDEN

There are signs that wage formation is not helping those who have a low chance of finding work and are therefore in a weak position in the labour market.

Minimum wages are negotiated between the social partners and laid down in collective agreements. These agreements together cover almost 90 per cent of all employees, but it can be assumed that only a small percentage of the unemployed are represented in the negotiations. Collectively agreed minimum wages in Sweden are relatively high by international standards, and the wage structure is compressed (see Diagram 10).

Unemployment is significantly higher among those with no more than compulsory education. Adjusting minimum wages would probably boost employment in groups with limited education and little relevant employment experience. In a period with large inflows of people with initially low actual or expected productivity into the labour force, relatively high minimum wages may be especially problematic.

ACTIVE LABOUR MARKET POLICIES HAVE LIMITED EFFECTS

Active labour market policies, in the form of various initiatives from the Swedish Public Employment Service and general employment subsidies, have long been used to increase jobseekers' skills and lower the thresholds for entry into the labour market. These policies seem to have limited effects, however. It is unlikely that active labour market policies of the kinds pursued to date will be able to reduce unemployment and increase employment on their own to any great extent.

ACTION NEEDED TO ADDRESS CHALLENGES

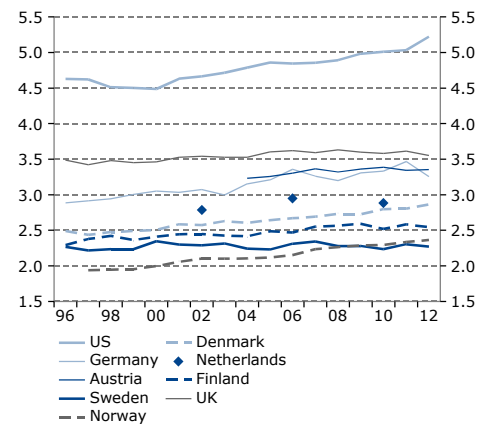
In the current labour market climate, many of the jobless have little chance of finding work. For a significant percentage of them to be able to secure employment, the NIER believes that various structural measures will be needed both from the social partners and at a political level.

Unemployment is significantly higher among those with no more than compulsory education. Collective agreements cover a large part of the Swedish labour market and therefore play a key role in wage formation. Adjusting minimum wages would probably boost employment in groups with limited education and/or little relevant employment experience.

Active labour market policies are needed, but analyses suggest that, overall, those pursued to date have limited lasting effects on employment. Wage subsidies can increase overall employment if targeted at the right individuals.

Diagram 10 Income dispersion, P90/P10

Percentile ratios



Note. Refers to income, not wage.

Source: OECD.