Wage Formation in Sweden
Summary 2011

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Lönebildningsrapporten is an analysis of the economic conditions for wage formation in Sweden. The **Report on Wage Formation** is a summary of Lönebildningsrapporten in English.

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1 Summary

Sweden's economy has recovered from its sharp decline in output in 2008–2009. Employment increased by some 50 000 persons in 2010 and is expected to go up another 160 000 by 2012. Despite this improvement, unemployment will be about 7 percent next year. However, a low unemployment rate of 5 percent is within reach for Sweden. A precondition for a persistent unemployment rate of 5 percent is that hourly earnings not increase on average by more than 3.1 percent per year in 2012–2014 or more than 3.7 percent per year in 2015–2020. If the labour market parties in manufacturing reach a favourable outcome for the general economy that can serve as a benchmark for negotiations in other sectors, the stage will be set for unemployment to continue decreasing.

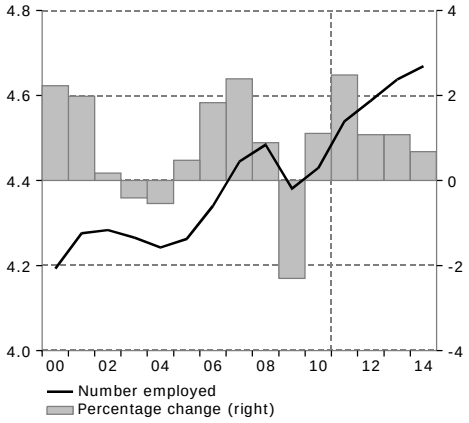
1.1 A Low Rate of Structural Unemployment Can Be Achieved

RAPID RECOVERY OF THE SWEDISH ECONOMY

The Swedish economy has recovered rapidly after the sharp decline of output in 2008–2009, but the economy is not expected to reach cyclical balance until 2014. The effects of the recession on the labour market have been less severe than was initially anticipated. Employment dropped by 2.3 percent in 2009, but it is expected to rise by a total of 3.6 percent in 2010 and 2011 (see diagram 1). Unemployment, which was 8.4 percent in 2010, is forecast to decrease to 7.3 percent in 2011.

Diagram 1 Employment, age 16-64

Millions and annual percentage change, respectively



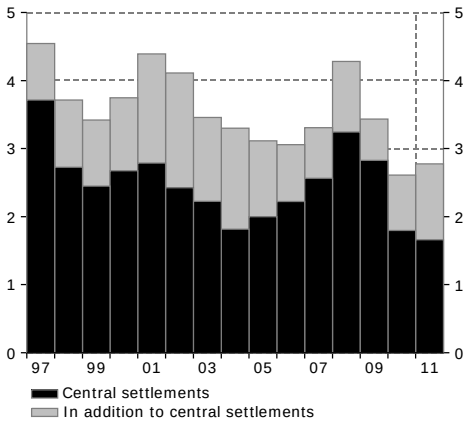
Sources: Statistics Sweden and NIER.

LABOUR MARKET PARTIES HAVE CONTRIBUTED TO A POSITIVE TENDENCY

The reason why the effects of the recession on the labour market were less adverse than expected was probably that many firms regarded the crisis as temporary and refrained from large-scale layoffs. The rather positive tendency of the labour market during the crisis was helped along by adjustment of wage determination to the prevailing state of the economy in 2009 and 2010. The rate of increase in hourly earnings slowed markedly in 2009, and in 2010 it reached its lowest point since the turn of millennium 2000 (according to the definition in the Short-Term Earnings Statistics, see diagram 2). For the economy as a whole and in the business sector, the rate of increase in labour costs

Diagram 2 Hourly Earnings, Economy as a Whole

Annual percentage change



Note. Short-Term Earnings Statistics.
Sources: National Mediation Office and NIER.

averaged 1.3 and 0.8 percent per year, respectively, in 2009–2010.[1]

With the combination of slower growth in hourly earnings and a productivity increase, adjusted for the different amount of workdays, of 3.9 percent in the business sector, unit labour costs in that sector dropped by more than 4 percent in 2010. As a consequence, profitability improved – a development welcomed at many firms that had faced slack demand during the financial crisis.

THE LABOUR MARKET PARTIES CAN AFFECT THE LONG-TERM LEVEL OF UNEMPLOYMENT

Two central questions for the Swedish economy are how long the employment rate can keep going up and how far unemployment can go down without leading to a higher rate of increase in earnings and prices than is compatible with the Riksbank's inflation target. Here the central settlements negotiated by the labour market parties, and the subsequent local negotiations, play a critical part (see Chapter 3 "Pay Negotiations and Structural Unemployment "). A structural employment rate of 5 percent, close to the low unemployment of the 1980's, is within reach.[2] For this to happen, however, upward pressure on earnings and prices must remain moderate as long as unemployment exceeds 5 percent. The Riksbank will then be able to adjust monetary policy so that an unemployment rate of 5 percent can be achieved and maintained.

In the NIER's opinion, a lasting reduction of unemployment to 5 percent requires that hourly earnings in the business sector during the period 2012–2014 not increase by more than 3.1 percent as an annual average (see Section 3.2)[3]. Beginning in 2015, when the low unemployment rate of 5 percent has been attained, hourly earnings can increase by an annual average of 3.7 percent.[4]

With a more rapid increase in hourly earnings and labour costs in 2012–2014, the decline in unemployment would end earlier, and unemployment would be stuck at a higher level when the economy returned to balance. It is the NIER's assessment that an increase of 3.5 percent in 2012–2014, instead of 3.1 percent, would result in a structural unemployment rate just over 6 percent after the crisis (see diagram 3 and Section 3.2 "A Permanently Lower Unemployment Rate Requires More Restrained

Diagram 3 Unemployment, age 16-64
Percent, yearly values

Sources: Statistics Sweden and NIER.

[1] See Chapter 3 for an analysis of the difference between the rates of increase in labour costs and hourly earnings, respectively.

[2] Since the new ILO measure of unemployment includes full-time students looking for work, the recorded rate of unemployment is now roughly 1.5 percent higher than with the measure used until 2007.

[3] Hourly earnings according to the National Accounts. An annual increase averaging 3.1 percent in 2012–2014 corresponds to an increase in labour costs of 3.3 percent. See Section 3.2.

[4] Beginning in 2015, the cost of labour and hourly earnings are expected to increase at the same rate.

Growth in Earnings"). The explanation is that firms would then cut back their hiring, since profitability would be poorer, and that the Riksbank would need to raise the repo rate more and sooner. The number unemployed in this case would be some 60 000 higher in 2014.[5]

HIGHER REAL DISPOSABLE INCOME DESPITE LOWER NOMINAL GROWTH IN EARNINGS

Compared with the scenario of higher structural unemployment – over 6 percent – a lower rate of structural unemployment would call for nominal increases in earnings averaging 0.4 percent less per year during the period 2012–2014. Since a lower rate of increase in hourly earnings would also lead to a lower rate of price increases, the difference between the two alternatives in regard to real growth in earnings[6] would be less, averaging 0.3 percentage points per year in 2012–2014. Real growth in earnings would even be higher in 2015–2020 in the alternative of smaller increases in hourly earnings in 2012–2014, since the improved profitability of firms would encourage them to increase their investment, thus encouraging growth in productivity (see Table 1).

Table 1 Macroeconomic Effects of Restrained Growth in Earnings

Percentage change and percent, respectively

	2012–2014		2015–2020	
	Structural unemployment (percent)			
	6.2	5	6.2	5
Wage formation				
Nominal cost of labour	3.7	3.3	3.6	3.7
Real cost of labour[1]	2.3	2.0	2.1	2.3
Nominal hourly earnings	3.5	3.1	3.6	3.7
Real hourly earnings[2]	2.4	2.1	1.8	1.9
Macroeconomy				
Unemployment, ages 16–64	6.6	6.2	6.1	4.8
Employment rate, ages 16–64	77.0	77.4	78.3	79.4
Real disposable income	2.4	2.5	1.8	1.9
GDP, constant prices	3.1	3.5	2.1	2.1
Repo rate	3.5	3.2	4.0	4.0

[1] Deflated by the value-added price index.
[2] Deflated by the implicit price index for household consumption expenditure.
Sources: The Riksbank, Statistics Sweden and NIER.

Moreover, the lower structural unemployment of 5 percent would create an additional margin for tax cuts and/or increases in transfer payments and general government consumption, as

[5] The figures are of course surrounded by considerable uncertainty. See Section 3.2.

[6] Nominal hourly earnings deflated by the implicit price index for household consumption expenditure.

tax bases would expand and unemployment-related expenditure would decrease. If the improvement in public finances were used for lowering taxes and/or increasing transfer payments, the total real disposable income of households would already be somewhat higher in 2012–2014 in the alternative with a lower rate of structural employment; this would also be the case in 2015 and subsequent years (see Table 1).[7]

A lasting lower rate of structural unemployment would not require a permanently lower rate of increase in hourly earnings. After the lower rate of structural unemployment was reached, hourly earnings could increase in 2015–2020 by 3.7 percent per year. During the recovery period 2012–2014, until the economy returned to balance, a lower rate of increase in hourly earnings would be essential, since then would be the time when a margin would arise for establishing a persistently higher level of employment and persistently lower level of unemployment.

1.2 Productivity, the Inflation Target and Unemployment in Sweden – Central Elements in Wage Formation with a Flexible Exchange Rate

When the Swedish economy has reached cyclical balance, business-sector productivity and value-added prices are expected to increase at annual rates of 2.3 and 1.3 percent, respectively. This entails a structural (cyclically balanced) rate of increase in hourly earnings and labour costs[8] of 3.6 percent (see Chapter 4 "Increase in Labour Costs in 2015–2020" for an analysis).[9]

As described in Chapter 5 "Wage Formation with a Fixed and a Flexible Exchange Rate," with a flexible exchange rate productivity and the inflation target in Sweden determine how much earnings and labour costs can increase when the economy is in balance.[10] For a number of reasons, the development of earnings in other countries does not affect the conditions for

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[7] In the calculation reported in Table 1, the additional budgeting margin has been used in a standardized manner to lower the VAT, the income tax, and to increase the transfer payments to households. See Section 3.2.

[8] In the analysis of the structural rate of increase in Chapter 4, the cost of labour, not hourly earnings, is used throughout. In 2015–2020, however, hourly earnings and the cost of labour are expected to increase at the same rate.

[9] In the preceding section it was noted that the rate of increase in hourly earnings in 2015–2020 can be 3.7 percent if an structural unemployment rate of 5 percent has been achieved. In this case the reason why the rate of increase during the period 2015–2020 still exceeds the structural rate (of 3.6) by a tenth of a percent is that the adjustment to a low structural employment rate of 5 percent includes an increase in investment that creates an extra margin for pay increases.

[10] The NIER's conceptual framework is based on theory that is generally accepted in the literature on economic research and is shared, for example, by Nils Gottfries, "Fungerar den svenska lönebildningen?" (Does Swedish Wage Formation Work?), in Swedish Government Official Report SOU 2010:93 (appendix 5 to the 2011 report of the Long-Term Planning Commission, Swedish Government Official Report SOU 2011:11).

pay increases and employment in Sweden. These reasons include differences in the development of productivity and/or prices.

NUMBER OF HOURS WORKED IN MANUFACTURING CONTINUING TO DECREASE

Since Sweden let the krona float in 1992, it has had large surpluses in its current account (see diagram 4); this was necessary to improve the country's net foreign asset position. That build-up took place as Swedish households had relatively higher saving, and the public sector relatively higher net lending, than other countries during this period. This development was partly due to demographic factors and partly precautionary (see the special analysis "Age Structure, the Exchange Rate and the Export Share"). The opposite is expected in the future, with Sweden gradually reducing its net lending relative to other countries and thus decreasing the surplus in its current account (see diagram 4). The situation has been accentuated by the financial crisis, one reason being that households and the public sector in many other OECD countries will have to increase their saving and net lending in the future.

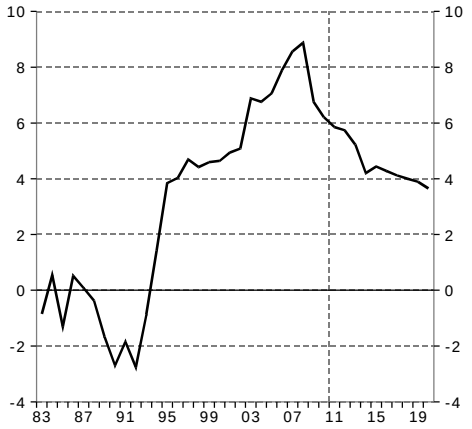
For these reasons, the real exchange rate of the krona is expected to strengthen further, contributing to a continued decrease in hours worked in manufacturing as a share of total hours worked (see diagram 5). The jobs lost in the exporting industries during the crisis will not be recovered; on the contrary, even more jobs will probably disappear in the coming decade. Nevertheless, the export share of gross domestic product will continue to increase, since globalization with the effect of increased world trade is expected to continue (see diagram 6).

STRUCTURAL TRANSFORMATION REQUIRES A FLEXIBLE LABOUR MARKET

However, a stronger krona, weaker net exports as a percentage of GDP and fewer hours worked in manufacturing do not harm the economy, but are a part of structural change in Sweden and of an adjustment in net lending. In this on-going structural transformation, it is important that the labour market function well and facilitate individual mobility between occupations, industries and regions. A well-functioning labour market will be particularly crucial in the next few years, since the growth outlook for the world economy after the financial crisis remains uncertain. Concern about central government finances in the euro zone generates uncertainty about the growth of the market for Sweden's exports. Moreover, larger countries like the United States or the United Kingdom may be forced to follow a highly restrictive fiscal policy in order to gain control over their massive budget deficits.

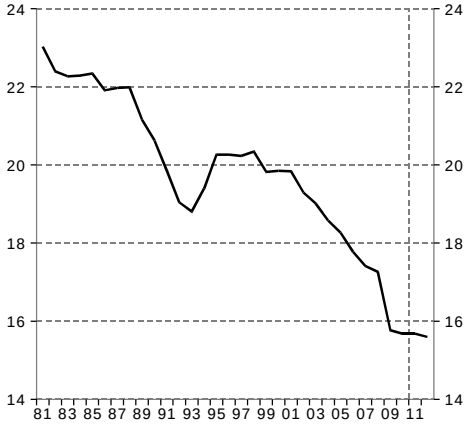
The downside risks in the picture of the international economy are a further reason for caution in increasing labour costs in

Diagram 4 Current Account
Percent of GDP



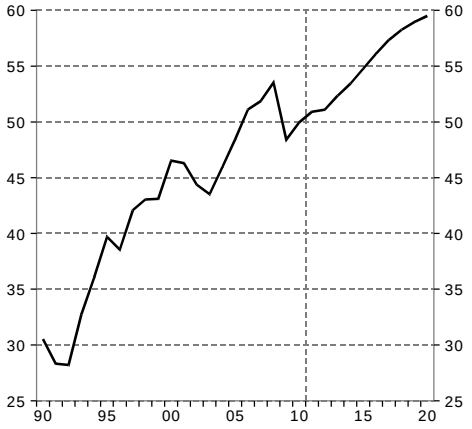
Source: NIER.

Diagram 5 Hours Worked in Manufacturing
Percent of total hours worked in entire economy



Sources: Statistics Sweden and NIER.

Diagram 6 Exports as Share of GDP
Percent of GDP, current prices



Sources: Statistics Sweden and NIER.

2012–2014. A weakening world economy could weaken the upturn of employment in Sweden. If the labour market and wage formation in Sweden function smoothly, it will be possible to achieve a low level of structural unemployment despite the clouds on the international horizon. Employment in Sweden will be determined by the rules and institutions in Sweden, and as shown in Chapter 3 "Pay Negotiations and Structural Unemployment," the labour market parties in the coming round of pay bargaining can help to achieve permanently high employment and low unemployment.

1.3 Pay Bargaining Norms to Play an Important Role in the Period Ahead

Since the Cooperation Agreement on Industrial Development and Wage Formation (Industriavtalet) was reached in 1997, pay determination in Sweden has been based on a practice where the bargaining process is initiated by the parties in manufacturing and the outcome of their negotiations serves as a guideline for other bargaining sectors. Despite differences in the time profile of pay adjustments, the results of the 2010 negotiations also show uniformity in regard to the magnitude of the central settlements on pay adjustment over the full-year period 2010 and 2011.[11]

During the 2010 negotiations, disagreement arose in regard to the way pay bargaining norms should work, and the Association of Swedish Engineering Industries (Teknikföretagen) gave notice that it would terminate the Cooperation Agreement on Industrial Development and Wage Formation as of October 31, 2010. However, the agreements on cooperation and on negotiations have been renewed by the parties in manufacturing (see Section 3.1). According to the timetable for the coming round of bargaining, the negotiations for manufacturing are expected to conclude in November of this year. They can then serve as a benchmark for other negotiations.

APPROPRIATE FOR INDUSTRIAL AGREEMENT TO LEAD THE WAY

In the coming round of labour negotiations and also thereafter, the manufacturing sector can probably assume the responsibility of setting the benchmark for wage increases despite its decreasing share of total employment. In the NIER's opinion, pay bargaining norms play a constructive and positive role in wage formation (see Chapter 6 "Pay Bargaining Norms, Central and Local Agreements"). If all trade unions were to pay bargain without

[11] See the analysis in Chapter 2 of *Wage Formation Report* 2010. However, the bargaining sectors covered by the Swedish Trade Union Confederation's (LO) low-pay pot deviated upward from the otherwise rather uniform rate of pay increases.

any coordination or norms, the structural unemployment rate would probably increase. By contrast, when one industry negotiates before other industries, and this industry is accepted as a norm setter, it is more difficult for the industries that follow to act in their own narrow short-term self-interest. If the industries that follow should clearly deviate from the norm, the order of negotiations would break down, and everyone would lose. On the other hand, when the parties in manufacturing know that their negotiated pay increases will serve as a guide for other industries, they will have less incentive to insist on excessive pay increments for the purpose of improving their own relative pay levels.

In the coming round of negotiations, the parties in the manufacturing sector will very likely continue to assume this responsibility for setting the pay bargaining norm. The settlement in manufacturing will thus have a strong effect on employment and unemployment throughout the economy. There is no conflict between the optimal development of employment in manufacturing and the optimal development of employment in the economy as a whole. If the bargaining parties in manufacturing make it easier to reduce unemployment to a low level before the rate of increase in earnings and in labour costs begins to accelerate, they will also help their own sector to achieve an optimal development of employment and output (see Chapter 5 ”Wage Formation with a Fixed and a Flexible Exchange Rate”). The highest possible employment in Swedish manufacturing is thus achieved through the highest possible employment in Sweden’s economy as a whole.

1.4 Tax Credit on Earned Income Leads Initially to Lower Pay Increases

The tax credit on earned income was introduced in 2007 and has subsequently been reinforced in several steps. The tax credit enhances the incentive to work and promotes growth in labour supply and employment. The number of hours worked increases to a varied degree for different groups on the labour market. The effect tends to be greater for women than for men, one reason being that women work fewer hours on average to begin with. The NIER’s analysis with a structural model for labour supply suggests that the increase is greatest for women with a low level of education (see Chapter 8 “The Tax Credit on Earned Income and Pay Levels for Different Groups”).

The tax credit on earned income initially tends to slow the rate of increase in earnings and labour costs. It becomes more attractive for individuals to accept job offers when after-tax pay is higher, and a larger labour supply is available to employers. It is therefore likely that the tax credit on earned income will have

the effect of limiting pre-tax pay increases for a few years (see Chapter 8).

It is impossible to determine the exact magnitude of the effect of the tax credit on the level and distribution of earnings, since the demand for labour differs from one group to another. In addition, there are adjustments in the matching of individuals to different duties, since the labour supply increases to varying degrees for different groups.

With a given demand for labour, the tendency to curtail pay increases tends to be greatest for the groups that increase their labour supply the most, mainly individuals with a low level of education. This effect is probably offset, though, since a greater demand for labour for these groups gives a lesser effect on wages, such that an increase in the number of hours worked is linked to a smaller change in pay. The positive effects of the tax credit on disposable income are probably greatest in percent for individuals with a low level of education, as individuals in this group receives the greatest percentage benefit from the tax credit on earned income and probably increase their work hours the most as well.

The inhibiting effect of the tax credit on pay increases is not permanent. In the long run, the increased supply of labour will be matched by higher demand as firms encountering better availability of labour will invest more. A potential will then be created for higher labour productivity and thus for stronger growth in earnings later on.

1.5 Increasing the Proportion of Women Managers Can Reduce the Pay Gap between Men and Women

The pay gap between men and women has been difficult to reduce. For example, the NIER's analysis shows that low-pay pots in central labour agreements have only a temporary effect on the unexplained difference in the pay of men and women.[12]

One factor that may gradually help to decrease the pay gap is a rising trend in the number of female managers in the economy (see Chapter 7 "Managerial Positions and the Pay Gap between Men and Women"). Differences in the proportion of men and women in managerial positions are a factor that contributes to the total pay gap between genders. A comparison of different industries in regard to the proportion of female managers shows that women are generally underrepresented in managerial positions; that is, the percentage of women managers in an industry is lower than the percentage of women employed in that industry. Female managers also appear to receive less pay than their male managerial colleagues. This pay gap in management cannot

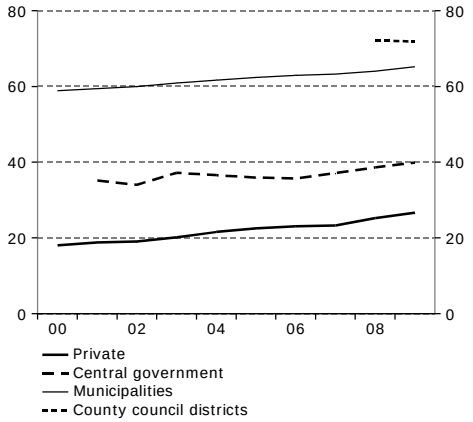
[12] See Section 6.2 in *Wage Formation in Sweden 2010*.

be explained by the observable characteristics of female and male managers. Nor does the managerial pay gap between men and women decrease over time.

The proportion of female managers, however, is gradually increasing in all sectors of the economy (see diagram 7), a tendency that is probably helping little-by-little to improve the relative earnings of women. One reason may be that managers can also affect the pay of other employees, and that the behaviour of female managers appears to differ somewhat from that of male managers. Thus, there is a relationship between the proportion of female managers in an industry and the pay gap between men and women in that industry. The analysis suggests that increasing the share of female managers in an industry has a beneficial effect on the relative pay levels of women. This mechanism, however, does not operate to an equal degree throughout the economy, but is present primarily in industries where men are in a clear majority. By contrast, in industries where women predominate, a higher proportion of female managers does not appear to have any clear effect on the relative pay level of women.

Diagram 7 Proportion of Women in Managerial Positions by Sector

Percent



Note. The definition of the variable for managerial employment in county council districts was changed in 2008. For this reason only 2008 and 2009 are reported.

Source: Structure of Earnings Survey (Lönestrukturstatistiken), Statistics Sweden.

Contacts

The summary of this report is translated into English. If you want further information please contact us.

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