

Wage Formation in Sweden Summary 2007

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Preface

The Government has commissioned the NIER to prepare annual reports on the economic conditions for wage formation (bill 1999/2000:32, Wage Formation for Full Employment). The purpose of the report is to provide detailed factual documentation that will make it easier for the labour market parties and the National Mediation Office to reach a consensus on the economic conditions for wage formation and wage negotiations.

The Report on Wage Formation has normally been published in September or October, but this year's Report is being issued in November in order to permit preliminary assessment of the 2007 round of wage negotiations and its effect on the labour market and the economy in general.

The preparation of this year's report was led by Juhana Vartiainen, Head of the Division for Macroeconomic Research and Simulations.

Stockholm

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Director General

1. Summary

The 2007 pay bargaining round covers some 3 million wage-earners, almost all of whom have now had their collective agreements renegotiated. The collectively agreed wage increases were substantially higher than in the previous contract period of 2004–2006. Together with a strong labour market, this implies that wages will be rising rapidly, by an annual average of 4.6 percent in 2007-2009, the period covered by the new contracts. The NIER's analysis shows that the parties have assumed roughly the same degree of macroeconomic responsibility as in previous rounds of collective bargaining. In the long run the high rate of wage increases is not compatible with the Riksbank's inflation target. The 2007 negotiations have not contributed to lower equilibrium employment. Consequently, the current downward tendency of unemployment is unlikely to last.

The 2007 negotiations were held in a cyclical phase where resource utilization on the labour market was moving from balance to a slightly strained position (see Diagram 1). The tighter the labour market, the stronger the negotiating position of wage-earners and their organizations, as there are numerous job openings in relation to the number of unemployed. For this reason, a tight labour market is normally associated with high wage increases.

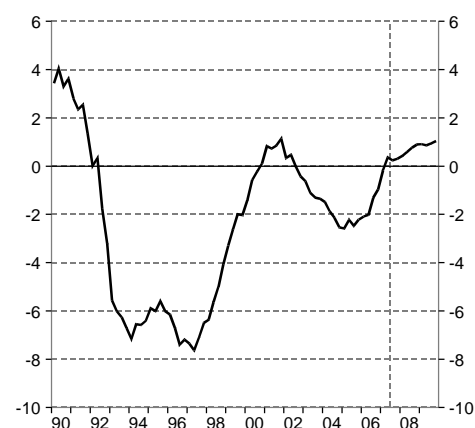
The outcome of the negotiations, together with a tight labour market in 2007–2009, will translate into a clear upward shift in the rate of wage increases and labour costs. Hourly earnings in the business sector are expected to increase by 4.3 percent in 2007, 4.7 percent in 2008 and 4.8 percent in 2009, i.e. at a rate considerably higher than in the previous contract period of 2004-2006, when wages rose by an average of 3.1 percent.

The surge in hourly earnings will contribute to an increasing inflationary pressure, and the Riksbank will have to continue raising the repo rate during 2008. The outcome of the 2007 pay bargaining round implies that the current downward tendency of unemployment will probably not last. When the economic upswing tapers off, unemployment – barring new economic disturbances or major economic policy measures – will again rise above 6 percent (according to the new ILO definition), which is the NIER's assessment of the equilibrium unemployment rate. There is even an upside risk to the level of equilibrium unemployment.

Over the past 10 years, a shift toward more decentralised pay bargaining has taken place. This facilitates changes in relative

Diagram 1 Labour Market Gap

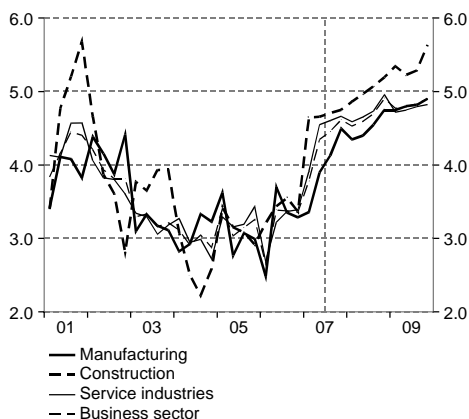
Percent of potential hours worked, seasonally adjusted quarterly values



Source: NIER.

Diagram 2 Hourly Earnings

Annual percentage change, quarterly values



Sources: National Mediation Office and NIER.

Diagram 3 Hourly Earnings and Hourly Cost of Labour, Business Sector

Annual percentage change, quarterly values



Note: The cost of labour in the business sector excludes the effect of the temporary pension premium rebate for 2006, calendar-adjusted.
Sources: National Mediation Office and NIER.

wages. The design of most labour contracts for hourly employees, however, leans heavily on general increases or guaranteed individual increases which implies that the margin for wage differentiation is more limited. In addition, some contracts have included sharp increases in the minimum wage, particularly in the 2007 round of negotiations. These features compress wage distribution, with a risk of increasing equilibrium unemployment. The negative effect on employment must be balanced against the positive effect on the possibility of wage-earners to earn an acceptable living in low-wage industries.

HOURLY EARNINGS AND LABOUR COSTS TO ACCELERATE IN 2007–2009

Centrally negotiated wage increases in the business sector are forecast to average 3.4 percent per year in 2007–2009. The ultimate increase in hourly earnings will exceed the negotiated increase, as collectively negotiated increases normally serve as a floor for individual wage increases. Hourly earnings in the business sector are expected to increase by an average of 4.6 percent during 2007–2009 (see Diagram 2).

The previous round of collective bargaining was held at a time of ample unutilized resources on the labour market. With higher unemployment in 2004 and more subdued expectations about the economy, the centrally negotiated increases in hourly earnings were smaller, averaging 2.1 percent per year in 2004–2006. The final annual increase in hourly earnings in 2004–2006 was 3.1 percent.

In the business sector, the annual increase in labour costs is normally somewhat higher than the increase in hourly earnings. The cost of labour is expected to be up by 4.5 percent in 2007 and by 4.9 and 5.4 percent, respectively, in 2008 and 2009 (see Diagram 3). The average annual increase in labour costs will be 4.9 percent in the 2007–2009 contract period, compared to 3.4 percent on average during 2004–2006.¹

THE 2007 WAGE BARGAINING ROUND DOES NOT CONTRIBUTE TO A REDUCTION OF EQUILIBRIUM UNEMPLOYMENT

When unemployment is below the equilibrium unemployment rate, the rate of wage increases will sooner or later rise to a level that is unsustainably high and incompatible with the inflation target. Unemployment cannot permanently stay below the equilibrium unemployment rate collectively agreed, as wages and thus prices would then accelerate so much that the Riksbank would have to intervene.

¹ In the figures for the increases in labour costs, the effect of the temporary pension premium rebate has been eliminated.

Through collectively agreed wage adjustments and the design of labour contracts, as well as the subsequent local negotiations, the labour market parties can affect the increase in business sector labour costs. Thus, through their influence on the relationship between unemployment and the rate of wage increases, the parties can also help to determine how low the Swedish long run unemployment rate can be. The NIER assesses the parties' responsibility for the general economy in terms of how their actions affect equilibrium unemployment.

The rate of increase in labour costs can be decomposed into three components:

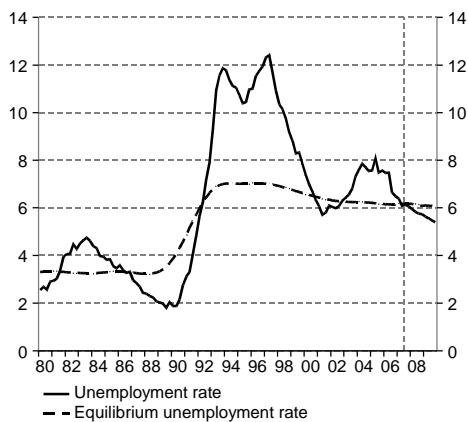
1. The **structural**, cyclically balanced rate of increase in labour costs, consisting of the sum of the growth of business sector labour productivity and the rate of increase in business sector prices. In accordance with the analysis in the *Report on Wage Formation 2006*, the structural rate of increase in labour costs is expected to average 4.4 percent per year during the period 2007–2015. A structural labour cost increase of 4.4 percent implies that labour costs are expected to increase by 4.4 percent if the economy is in cyclical balance, and that the labour share (and thus the profit share) in the business sector is compatible with the internationally determined rate of return required on Swedish investments.

2. **Cyclical imbalances**, if any, mean that the rate of increase in labour costs may temporarily deviate from the structural rate of 4.4 percent without necessarily causing higher unemployment in the long run. It is a normal pattern that labour costs accelerate in an expanding economy when the unemployment rate is below its equilibrium level or when employment increases strongly. The period 2007–2009 will be characterized by strained resource utilization, as unemployment will be under its equilibrium level and the number of vacancies will be high in relation to the number of unemployed persons looking for work. The tight labour market expected in 2007–2009 (see Diagram 1) means that the rate of increase in labour costs can for cyclical reasons exceed the structural rate by 0.4 percentage points but still be compatible with an unchanged equilibrium unemployment rate (see the analysis in Section 3.2)

3. According to the analysis above, an annual average labour cost increase of 4.8 percent (the sum of 4.4 percent, the structural rate, and 0.4 percent, the cyclical factor) in 2007–2009 is compatible with an unchanged equilibrium unemployment rate. The **ambition of the parties regarding equilibrium unemployment** is reflected in whether labour cost growth exceeds or falls short of this rate. After observing the 2007 wage bargaining round, the NIER forecasts an annual increase in labour costs of 4.9 percent in 2007–2009, which exceeds 4.8 percent by 0.1 percentage point. Thus, the predicted rate of increase in labour costs is only slightly higher than the rate compatible with unchanged equilibrium unemployment. The difference between them (0.1 percentage points), however, is too

Diagram 4 Unemployment According to the ILO

Percent of labour force



Sources: Statistics Sweden and NIER.

small to warrant a revision of the NIER's previous assessment of the equilibrium unemployment rate at slightly above 6 percent (6.2 percent by the ILO definition). However, there is an upside risk in the assessment of the level of equilibrium unemployment.

The forecast annual increase in labour costs by 4.9 percent in 2007-2009 exceeds by 0.5 percentage pointed the rate compatible with the Riksbank's inflation target, given the NIER's assessment of the future increase in productivity. Labour costs will accelerate strongly between the contract periods of 2004-2006 and 2007-2009 (see Diagram 3). With the rapid increase in labour costs, the level of unemployment is not likely to permanently sink below 6 percent. The 2007 negotiations, and the positions taken there by the parties, showed no strong effort to achieve a lasting reduction in equilibrium unemployment. After the period of economic expansion in 2007-2009, therefore, the unemployment rate is expected to return to a level averaging somewhat above 6 percent (see Diagram 4).

The assessments of the expected increases in hourly earnings and labour costs, the level of equilibrium unemployment and the effect of wage increases on equilibrium unemployment are of course preliminary and uncertain.² Moreover, equilibrium unemployment may be affected by economic disturbances or major economic policy measures that are not known today.

FINAL WAGE INCREASES HIGHER THAN COLLECTIVELY NEGOTIATED INCREASES

At many workplaces, local wage negotiations are still in progress as of mid-November. One major source of uncertainty in evaluating the negotiations is the forecast for the final increase in labour costs, which in turn is dependent on the increase in hourly earnings in addition to the wage increases numerically specified in the collective agreements.

Collectively negotiated bargaining agreements do not entirely determine the growth of wages. Individual wages are also adjusted independently of collective bargaining, as when firms want to reward good individual performance or compete for labour. When there was a strong effort to achieve nation-wide co-ordination of wages, this more market-like adjustment of wages was termed **wage drift** and taken as an indication of shortcomings in the pay bargaining system. At that time wage drift was often fairly substantial, as inflation and inflation expectations were high. Furthermore, the uniform general wage increases did not permit substantial revision of relative wages at workplaces.

Today individual wage formation is incorporated into many collective bargaining agreements, and it is not the aim of

² The National Mediation Office will publish its annual report "Labour Negotiations and Wage Formation 2007" in February 2008, and this report will include a more detailed assessment of the effect of the labour negotiations on hourly earnings.

collective agreements to determine with any high degree of precision the wage outcome for each individual. Many collective bargaining agreements encourage or stipulate individual wage determination, so that employers can even during the collective pay bargaining round adjust relative wages and see that individual performance is rewarded.

The National Mediation Office uses the term **residual item** for the difference between the wage increase provided in collective bargaining agreements and the wage increase that ultimately results. Normally the residual item is positively dependent on the state of the economy, as a tight labour market makes it easier for employees or a potential new employee to ask for high compensation. In the business sector, the average increase in hourly earnings, in addition to the centrally negotiated increase, during the period 2007–2009 will average 1.2 percent per year (see Table 1), i. e. the difference between the forecast increase in hourly earnings of 4.6 percent and the collectivel negotiated increase of 3.4 percent. In the years 2004–2006, when the labour market was less strained, the residual item averaged 1.0 percent per year in the business sector.

Thus, in 2007–2009 tighter resource utilization is expected to lead to a somewhat greater difference between collectively negotiated wage increases and the final wage outcome than in 2004–2006. The upward movement of this residual item compared to the previous contract period, however, is expected to be modest, a mere 0.2 percentage point. The size of the residual item depends on both the state of the economy and the design of labour contracts. The trend toward greater individualization in the design of labour contracts began in the latter half of the 1990's, and so far there is not much statistical evidence on the relationship between the residual item, the design of labour contracts and the state of the economy. The forecast for the residual item is therefore uncertain.

Table 1 Centrally Negotiated and Final Increases in Hourly Earnings, According to Short-Term Wage and Salary Statistics

Percent

	Agreement 01–03	Outcome 01–03	Agreement 04–06	Outcome 04–06	Agreement 07–09	Forecast 07–09
Manufacturing	2.4	3.7	2.0	3.1	3.2	4.4
Construction	2.6	4.1	2.3	3.0	3.2	5.0
Services	2.7	3.8	2.1	3.1	3.8	4.6
Business sector	2.6	3.8	2.1	3.1	3.4	4.6
Local govt.	2.3	4.4	1.9	3.4	4.2	4.5
Central govt.	1.8	4.2	1.6	3.2	*	4.1
Total	2.5	4.0	2.0	3.2	3.3	4.6

Note: Mean value over three calendar years. In accordance with the National Mediation Office statistics, the negotiated wage increase implied by agreements with no increase specified in figures has been set at zero. The figures for 2001–2003 are National Mediation Office statistics. The figures for 2007–2009 are the NIER's own calculations of amounts provided by agreements.

*Not all agreements for central government have been concluded; therefore, no calculation of the negotiated wage increase is shown.

Sources: National Mediation Office and NIER

RISKS: MORE RAPID ECONOMIC DOWNTURN, WEAKER PRODUCTIVITY GROWTH

The high pay increase outcome of the wage negotiations was based on expectations of a strong economy and fairly healthy productivity growth. If developments deviate substantially from these expectations, the high level of negotiated settlements will have a negative effect on employment. An international economic decline can weaken the economy so as to reduce business sector demand for labour, possibly curbing employment and increasing unemployment. If the economy takes such a course, the recently negotiated nominal wage increases may prove much too high and even further limit the willingness of firms to employ more personnel. Another risk scenario unfolds if the lacklustre productivity growth in 2007 persists throughout the contract period.

KEY ROLE OF MANUFACTURING AGREEMENT IN LABOUR NEGOTIATIONS

After the first agreement for the entire manufacturing sector in 1997, the Swedish system of wage negotiations has been characterized by informal co-ordination. The National Mediation Office has worked to establish a shared view of the conditions for wage formation. In many sectors, agreements have been reached on a negotiation procedure that will prevent conflict and prepare the way for negotiations to commence early enough for new agreements to be reached before the old ones expire. There has also been an informal consensus that collective bargaining agreements should first be reached in the traded-

goods sector of manufacturing and that these agreements should subsequently serve as a guide for other sectors in negotiating their wage agreements.

This procedure was also more or less followed in the 2007 labour negotiations. The first contracts were signed in March 2007 between the parties in manufacturing. The so-called Agreement for Technical Employees (Teknikavtalet) covers some 300 000 hourly and salaried employees in technology intensive manufacturing industries. The percentage rate of increase in the Agreement for Technical Employees then served as a guideline in the pay bargains other sectors.

STRONG CO-ORDINATION BY LO, THE SWEDISH TRADE UNION CONFEDERATION, AND HIGH SETTLEMENTS FOR SALARIED EMPLOYEES

In this year's round of labour negotiations, however, the normative role of manufacturing in wage determination was exercised somewhat differently than before. At the outset of the 2007 negotiations, the blue-collar LO – The Swedish Trade Union Confederation – was able to establish an internal co-ordination that provided a common formula for wage demands for all LO unions. LO's method of interpreting the normative role of manufacturing in setting wages meant, for instance, that the wage increases in monetary amounts implied by the percentage increases in the Agreement for Technical Employees to a very high degree determined the outcomes negotiated in all other LO areas. In practice this meant that low-wage groups in LO received higher negotiated wage increases in percentage terms.

In addition, the LO unions were very successful in imposing their contract demands for an employment equality pot that focused on industries with low wage levels and many women. Another feature of the recently concluded round of negotiations is that minimum wages were raised substantially in many bargaining sectors. Furthermore, guarantees of minimum individual increases were more common in the 2007 pay negotiations outcome than in the previous round of negotiations in 2004. Larger and more comprehensive individual guarantees and higher minimum wages will probably have the effect of compressing the wage distribution in the next few years, with the risk of negative effects on employment.

For salaried employees in the business sector, agreements were reached that provided approximately the same negotiated labour-cost increases in percentage terms as for hourly employees in manufacturing. In the latest rounds of collective bargaining, the centrally negotiated wage increases for salaried employees have instead been between 0.6 and 0.7 percent point lower than those for hourly workers.

THE DESIGN OF CONTRACTS AFFECTS RELATIVE WAGES

The contract designs agreed upon by the labour market parties affect not only average wages, but also relative wages and the wage distribution. A well-functioning system of wage formation allows wages to convey information on the value of which different skills and work performance in production. This assumes that there are wage differentials and that wages are flexible. At the same time, however, there are many reasons why wages are relatively rigid. Wage agreements are often concluded for several years. Wage earners are normally to some extent sheltered from economic shocks via rigid wages, since shareholders are better able to bear risks. The distribution of wages is also a major determining factor in the final distribution of income, and many countries have enacted provisions for minimum wages to ensure that a wage-earner can make an acceptable living even in low-wage industries.

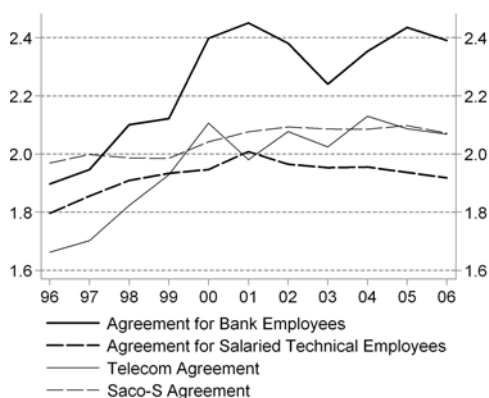
Wage differentials are lower in Sweden and the rest of the Nordic countries than in other market economies. This is partly due to a relatively even distribution of the productive characteristics of individuals such as education and health. Relative wages are also affected, however, by the design of collective bargaining agreements and systems of wage negotiations. The wage distribution is usually more compressed in countries where centrally negotiated collective agreements play a large part in wage formation. This reflects the effort by labour unions to achieve equal wages for equally productive work, but it is also possible that wage differences in countries with centralized wage formation do not fully reflect individual differential in productivity.

LOCAL WAGE FORMATION PROVIDES A MARGIN FOR INCREASED WAGE DISTRIBUTION

One indication that the design of collective agreements affects the wage structure is that the increase in wage distribution in 1996–2006 has occurred primarily within industries rather than between them. Wage formation has evolved differently in different collective bargaining sectors. It is clear that the increase in wage distribution has been greatest among salaried employees, and also that a high degree of individual wage determination is most common in groups of salaried employees.

For some collective bargaining sectors, wage differentials have increased precisely after wage formation has been decentralized. The Agreement for Bank Employees is a clear example. A salary schedule was replaced in 1998 by local wage formation, and wage differentials increased (see Diagram 5).³

Diagram 5 Wage Distribution, Labour Agreements for Salaried Employees, P90/P10 percentile ratios, 1996–2006



Note: Wage distribution calculated with an adjusted wage variable where changes in composition of individuals are taken into account. Sources: Wage Structure Statistics (Statistics Sweden) and NIER.

³ If wage-earners in a negotiating sector are divided into one hundred equally large groups in order of increasing wages, one hundred percentiles are established. The first percentile, P1, contains the one percent of individuals with the lowest wages, and the hundredth (P100) consists of the one percent with the highest wages. P90/P10 is the ratio between average wages in percentile 90 and in percentile 10.

Another bargaining sector with local wage formation and sharply increasing wage differentials is the one covered by the Telecom Agreement. The Agreement for Salaried Technical Employees, by contrast is an example of a bargaining sector with a lesser degree of local wage formation and greater individual guarantees, and the observed changes in wage distribution are considerably smaller.

Closer analysis of the development of wage distribution over time shows that the change in wage distribution is affected by the state of the economy. Wage differentials in sectors with local wage formation increased clearly during the economic expansion in 1996–2000, but the increase came to a halt when the economy entered a downswing after the turn of the millennium.

The general conclusion is that local wage formation appears to be associated with increasing wage differentials. The existence of local wage determination, however, is a conscious choice by the labour market parties, and it may itself be the result of underlying market pressure toward greater wage distribution. The fact that wage distribution increases in an expanding economy and may decrease in a contracting economy can be viewed as further support for the argument that market forces are the underlying mechanism that governs change in wage structure. The results should not be taken to mean that local wage formation by itself causes increased wage differentials, but rather that local wage formation, to a greater degree than centrally controlled wage increases, allows market forces to affect the wage structure.

The change in wage distribution has been less among local government employees and among groups of hourly workers. In several LO negotiating sectors, wage differentials even decreased between 1996 and 2006. A likely reason is that many LO unions negotiate general wage increases, or wage pots with high individual guarantees. High individual guarantees and general wage increases limit the margin available for differentiated and individual wage increases.

WORKPLACE OF SALARIED EMPLOYEES INCREASINGLY IMPORTANT FOR THEIR EARNINGS

For salaried employees in the private sector, a growing share of the wage variance is explained by greater differences between establishments, particularly in the years 1996–2001. To an increasing degree, the earnings of salaried employees in the private sector reflect factors other than directly observable characteristics of individuals like education and age. It may be that differences in salaries are increasingly affected by the characteristics of work places, such as profitability, working conditions, personnel policy and the firm's own personnel and pay policy. This may also mean that salaries to a greater extent reflect individual work performance.

Increased individualization of wage and salary negotiations has thus been associated with a greater variance of earnings across individuals and firms. Through stronger individual incentives, this may have contributed to the high productivity growth of the Swedish business sector in the years 1995–2006.

HIGHER MINIMUM WAGES REDUCE WAGE DIFFERENTIALS BUT MAY HAVE A NEGATIVE EFFECT ON EMPLOYMENT

Another feature of the 2007 negotiations was that individual guarantees of a minimum wage increase and increases in minimum wages were more prominent in wage settlements than in the previous contract periods of 2001–2003 and 2004–2006. Swedish minimum wages are high by international standards, in relation to median and average wages. The substantial increases in minimum wages are likely affect employment negatively bargaining in low-wage industries. So far, the Swedish studies that have investigated the impact of higher minimum wages suggest that there are negative effects on employment.

The proportion of individuals with minimum wages varies sharply among different bargaining sectors. In the Agreement for Hotel and Restaurant Workers and the Agreement for Retail Workers, for example, the proportion of wage-earners with minimum wages increased substantially between 1996 and 2006 (see Diagram 6). Of employees covered by the Agreement for Hotel and Restaurant Workers, some 30 percent had minimum wages in 2006; among employees covered by the Agreement for Retail Workers, the corresponding figure was 20 percent.

Higher minimum wages can be expected to compress the wage distribution, but they can also affect the average rate of increase in wages and labour costs. If increases in negotiated minimum wages affect only the group of wage earners directly concerned by the minimum-wage provisions, the principal effect of the increase will be to compress the wage structure from below. On the other hand, if firms for incentive reasons wish to maintain the prevailing relative-wage structure, higher minimum wages may lead to generally higher wage inflation, as they will then put upward pressure on the entire wage scale. Closer analysis of previous increases in minimum wages in some bargaining sectors – the Agreement for Hotel and Restaurant Workers, the Agreement for Retail Workers and HÖK (the Basic Agreement for Local Government Employees) – tends to show that higher minimum wages primarily affect the wage structure but have no major effect on the average rate of wage increases.

If this conclusion should apply more generally, it is possible that average wage increases in addition to collectively negotiated settlements during the contract period 2007–2009 will not be substantially affected by higher minimum wages.

Diagram 6 Proportion of Individuals with Minimum Wage

Proportions, percent



Note: An individual is defined as a minimum-wage earner if her/his salary lies in the interval [minimum wage, 1,01*minimum wage].

Sources: Wage Structure Statistics (Statistics Sweden) and NIER.

Contacts

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

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