#### Wage Formation in Sweden Summary 2009

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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 preparation of this year's report was led by Juhana Vartiainen, Head of the Reserach Division.

Stockholm, September 2009

Mats Dillén Director General

#### 1 Summary

The 2010 pay negotiations will be held in a severely slumping economy. In the NIER's opinion, GDP growth and employment would be furthered by moderate but on average above-zero increases in wages and salaries during 2010–2012. Both general pay freezes and sizable pay increases in the period as a whole would adversely affect output and employment. The NIER's analysis of wage and salary differentials between men and women shows that the gender pay gap in the business sector has diminished only slightly since 1997. One principal explanation for the pay gap is the prevailing gender-based occupational segregation of the labour market. Both women and men earn more if they work in male-dominated occupations, even when consideration is given to observable factors affecting wages and salaries, such as education, age and incidence of part-time work.

# 1.1 Severe Economic Downturn in the Period Covered by Pay Agreements

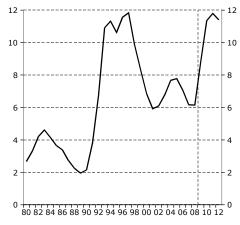
Sweden's economy is currently in a severe slump that is having a dramatic effect on the labour market.¹ GDP fell by 0.2 percent in 2008 and will plummet by an additional 5 percent this year. Unemployment is increasing and is expected to reach nearly 12 percent in 2011 (see Diagram 1). Employment will drop by some 265 000 persons between 2008 and 2011. Unemployment is expected to start decreasing towards the end of 2011, but the economy and the labour market will take a long time to recover. The decrease in employment will result in chronic exclusion of many individuals from the labour market. High unemployment will curtail labour force participation when the chances of finding a job are limited. At the same time, higher long term unemployment will also lead to higher equilibrium unemployment, one reason being that individuals who remain unemployed for an extended time tend to lose some of their skills.

The economic slump will be severe and prolonged, posing considerable challenges both for stabilization policy and for wage formation. Economic policy has shifted in a clearly expansionary direction and is expected to remain expansionary for the next few years. The effect will be to lessen the severity of the economic slump to some degree and to moderate the increase in unemployment.

The sharp drop in demand will also contribute to a slack tendency in prices. For the next few years inflation will be below the Riksbank's target level. A central challenge for monetary policy will be to prevent expectations of an excessively low in-

 $^{\rm I}$  The analysis in this report is based on the forecast published by the NIER in The Swedish Economy, August 2009.

Diagram 1 Unemployment
Percent of labour force



Sources: Statistics Sweden and NIER.

Diagram 2 Pay Increase Expectations of Labour-Market Parties

Annual percentage change, quarterly values

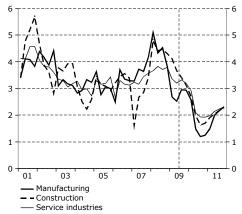


Note. The respective average expectations of the parties are given equal weight.

Source: Prospera.

Diagram 3 Hourly Earnings in Business Sector Industries

Annual percentage change, quarterly values



Sources: National Mediation Office and NIER.

Diagram 4 Cost of Labour and Hourly Earnings, Business Sector Annual percentage change, calendar-adjusted

Annual percentage change, calendar-adjusted values



Sources: Statistics Sweden and NIER.

flation rate from becoming entrenched. The Riksbank has rapidly lowered its policy interest rate (the repo rate), leaving virtually no margin for additional reduction of interest rates. Thus, conventional monetary policy cannot be used to stimulate the economy further in 2009 or the first half of 2010.

In this report the conditions for wage formation are analyzed primarily in light of the severe economic contraction. In its reports on wage formation, the NIER normally analyzes the development of labour costs according to three criteria: What is the long-term, structural rate of increase in labour costs? How will equilibrium unemployment be affected by the behaviour of the labour market parties? What increase in labour costs is called for in view of cyclical imbalances, if any? In this year's report, the focus is on the last of these three considerations, i. e. on the relationship between the rate of pay increases and the cyclical development of the economy. In 2010, at the outset of the period covered, the economy will be a long way from cyclical balance, and it is hard to see a clear relationship between wages and salaries in the next few years and equilibrium unemployment or the long-term structural conditions for labour-cost increases in Sweden. On the other hand, the parties on the labour market will be able to affect the cyclical development and recovery of the Swedish economy in 2010-2012 through their central and local collective bargaining agreements.

## 1.2 An Important Round of Pay Bargaining in 2010

Sweden is facing a round of pay bargaining that will cover much of the labour market. In 2010 some 500 collective pay agreements will be renegotiated. The negotiations will cover about 3 million individuals, or 75 percent of all employees on the Swedish labour market. For roughly 70 percent of these employees, the current contracts expire on March 31, 2010. Two thirds of the remainder, or about 600 000 individuals, have contracts that expire in April, May and June. On September 30, 2010, the contracts expire for many employees in the central government sector.

Expectations of future pay increases have already been dampened by the severe slump in the economy (see Diagram 2). According to *The Swedish Economy*, August 2009, the rate of increase in wages and salaries, as well as in labour costs, will drop to a lower level during the period 2010–2012 (see Diagram 3 and Diagram 4). Labour costs are forecast to increase by an annual average of 2.3 percent during the contract period 2010–2012.

Sweden's economy is in a severely downturn, and neither stabilization policy nor wage formation can accomplish a rapid

 $<sup>^2</sup>$  See Chapter 3 and Report on Wage Formation 2006 for a more detailed presentation of the the NIER's conceptual framework for wage formation.

turn-around on the labour market. But wage formation can help to limit the loss of jobs during the crisis as well as reduce the risk that the economy will deteriorate further or that the crisis will last even longer.

# 1.3 Challenge Posed by the State of the Economy

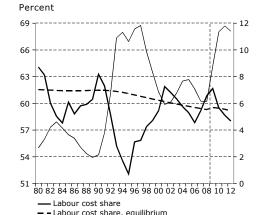
The economic contraction will pose a dilemma in the coming labour negotiations. Labour costs are high considering the cyclical state of the economy, and manufacturing has been hit especially hard by the slump. On the one hand, this initial situation would call for very slight pay increases, or even pay cuts, at many companies. On the other hand, a more expansionary monetary policy cannot be used in response to a slower increase in labour costs than in the NIER's forecast, since the repo rate is already close to zero. Stagnating labour costs would then dampen inflation, and inflation expectations, to an even lower level, leading to a higher real rate of interest. The latter, in turn, would mean a economic tightening.

#### HIGH LABOUR COSTS AND DEPRESSED PROFITS CALL FOR LOW WAGE INCREASES

Labour costs are high and profits low in many industries and firms. The 2007 pay negotiations were held in the expectation of a continued tight labour market and – as we now know – resulted in relatively high nominal wage increases for the contract period 2007–2009. Hourly earnings in the business sector as a whole were up by 4.0 percent in 2008 and will rise by 3.5 percent in 2009.<sup>3</sup> The lacklustre development of productivity during the same period, however, was an unpleasant surprise after the expectations prevailing in the 2007 pay negotiations. In the period 2007–2009 labour productivity will have decreased for three years in a row. This translates into a rapid rise in the labour cost share and in unit labour costs in the business sector, a development that will weaken the capacity of firms to maintain output and employment.

The labour share will admittedly decrease in the period ahead – a typical mechanism during an economic contraction – but it will still be high in 2010 and 2011 in relation to the state of the economy. Despite unemployment of almost 12 percent, the labour share in 2011 and 2012 will be just slightly below the equilibrium level in the NIER's assessment<sup>4</sup>; (see Diagram 5).

Diagram 5 Labour Cost Share, Business Sector



— Unemployment, ILO definition (right)

Note. Labour cost share is defined as total nominal payroll cost divided by nominal value

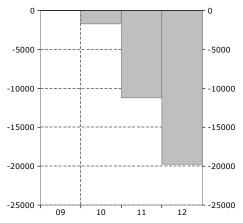
Sources: Statistics Sweden and NIER.

 $<sup>^{\</sup>rm 3}$  Hourly earnings according to the National Accounts.

<sup>&</sup>lt;sup>4</sup> See the special analysis "A Time-Variable Equilibrium for the Labour Cost Share" in chapter 2 for an analysis of the trend of the labour share.

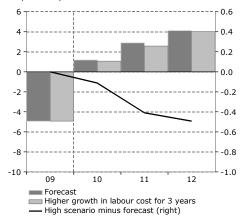
Diagram 6 Business Sector Employment with Annual Growth of 4 Percent in Labour Cost, 2010–2012

Difference in relation to forecast, number of persons



Source: NIER.

## **Diagram 7 GDP**Annual percentage change and percent, respectively



Note. Solid line (scale at right) shows percentage difference in level.  $\,$ 

 ${\tt Source:\ NIER.}$ 

#### HIGH INCREASES IN LABOUR COSTS WILL NOT STIMULATE THE ECONOMY

High labour costs, together with low demand and substantial unutilized resources, will lead many companies to cut back on personnel in 2010 and 2011 even though the economy by then will have started to pick up.

An even higher increase in labour costs than has been forecast by the NIER would cause business sector profitability to deteriorate further. In addition, it would slow the increase in GDP and result in a larger decrease in employment than what is implied by the NIER's forecast. If, for example, the annual increase in labour costs during the period 2010–2012 were 4.0 percent instead of 2.3 percent as forecast, the number of persons employed as calculated in the NIER's model would be roughly 20 000 lower in 2012 than forecast by the NIER (see Diagram 6). In this case the level of GDP in 2012 would be about 0.5 percent lower than in the NIER's forecast (see Diagram 7).5

There are many reasons why the recovery of the economy would be weaker in the scenario of 4.0-percent annual increases in labour costs compared to the NIER's forecast. High labour costs would curtail the demand of firms for labour. Some compensation for the higher growth in labour costs would be provided through larger increases in the prices charged by firms for their products, but the real cost of labour would still exceed the NIER's forecast. With higher inflation, the Riksbank would raise the repo rate faster and sooner. As a result, the real rate of interest in 2010–2012 would exceed that of the forecast, hampering recovery in business investment. At the same time, the excessive cost problem would be further aggravated at many firms, leading to more bankruptcies and layoffs. Higher real earnings for those who still have jobs would have some positive effect on household disposable income, but, at the same time, the higher real rate of interest would make households less willing to consume.

#### STAGNATING LABOUR COSTS CAN ALSO WEAKEN GDP AND EMPLOYMENT

While there is a need to restore the profitability of the business sector, there are also reasons to avoid stagnation or widespread reduction in wages and salaries as well as in labour costs. Wage moderation is normally rewarded by a low repo rate, as a limited increase in the cost of labour means low cost pressure. The Riksbank can then let the economy expand, and employment can increase to higher levels before the Riksbank needs to start applying the brakes by raising interest rates. In this way, restraint

<sup>&</sup>lt;sup>5</sup> See Chapter 3.

in pay demands normally leads to higher employment without negative long-term effects on real disposable income.

With the economy in its current state, however, the feedback from low pay increases to lower interest rates does not necessarily work, for the repo rate is already close to zero and inflation is below the 2-percent target rate. Under these conditions, generally stagnating wages and salaries or across-the-board pay cuts would be reflected first and foremost in an even lower rate of price increases, not in a lower repo rate. The combined effect of these factors would be a higher real rate of interest that would tend to hold back economic recovery.

Thus, a scenario of a zero increase in labour costs in 2010–2012 would also entail a higher real rate of interest than in the NIER's forecast (see Diagram 8). The higher real rate of interest would dampen household consumption and business investment, retarding the recovery of the economy. Thus, unchanged labour costs also mean less favourable development of GDP than in the NIER's forecast (see Diagram 9), and employment would be lower as well. The difference in the number employed compared to the forecast would be more than 40 000 persons in 2012 (see Diagram 10).

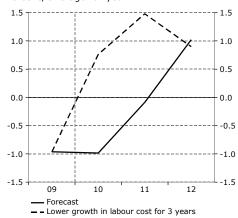
# 1.4 Modest but Positive Increase of Labour Costs Would Boost GDP and Employment in a Contractionary Economy

The NIER's overall assessment is that an average annual increase in labour costs between 1 and 2.5 percent in 2010-2012 would lead to a stronger growth of output and employment than would the alternatives. An increase in labour costs within this interval balances the risks of deflation, on the one hand, and of excessive cost pressure in the business sector as a whole, on the other.

## SUBSTANTIAL RISKS IF LABOUR COST INCREASES ARE TOO LOW – AND ALSO IF THEY ARE TOO HIGH

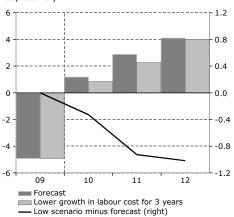
According to the NIER's analysis of different rates of increase in pay and labour costs for the contract period 2010–2012, there would be losses of employment both with stagnating labour costs and with excessive increases in labour costs. The principal explanation for this finding is that with the economy in its current special state, not only a very high rate of increase in wages and salaries, but also stagnation in wages and salaries, would result in a high real rate of interest.

#### Diagram 8 Real Rate of Interest Percent, average for year



Source: NIER

Diagram 9 GDP
Annual percentage change and percent, respectively

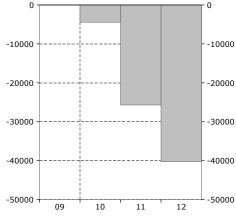


Note. Solid line (scale at right) shows percentage difference in level.

Source: NIER.

Diagram 10 Business Sector employment with Unchanged Labour Cost, 2010-2012

Difference in relation to forecast, number of persons

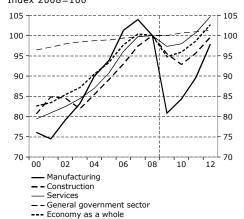


Source: NIER.

<sup>&</sup>lt;sup>6</sup> See Chapter 3 in *Report on Wage Formation 2008* for a detailed analysis.

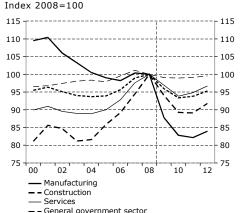
 $<sup>^{7}</sup>$  The real rate of interest is defined as the nominal rate of interest minus expected inflation, and since the nominal rate of interest cannot be lowered further, a lower expected rate of inflation would entail a higher real rate of interest.

Diagram 11 Output in Different Sectors of the Economy
Index 2008=100



Sources: Statistics Sweden and NIER

Diagram 12 Hours Worked in Different Sectors of the Economy



Sources: Statistics Sweden and NIER.

Both the zero scenario and the 4-percent scenario, moreover, entail substantial risks. Stagnating labour costs could imply a significantly worse economic outcome if expectations of lower inflation in the long run became entrenched. If worst comes to worst, the economy could enter a deflationary spiral of decreasing prices and wages while the real rate of interest remained high, since the nominal rate of interest would be locked in at around zero. True, the probability of such a deflationary spiral in Sweden is low, but not negligible, as the Swedish krona has appreciated over the summer of 2009 and is expected to continue doing so in 2010 and 2011, with a dampening effect on prices of imports.<sup>8</sup> Furthermore, there are indications that inflation expectations have continued to decrease during 2009.<sup>9</sup>

The other alternative scenario, where labour costs increase by 4 percent per year in 2010–2012, is also associated with considerable risks. An even more strained cost situation would probably result in numerous layoffs and bankruptcies. Above-normal wage increases in relation to the severity of the downturn would likely cause more bankruptcies in weak economy than in an economy in cyclical balance.

In more normal circumstances, the effects of a temporary acceleration in labour costs would normally recede after a couple of years as new employment opportunities arise for individuals who have been laid off. The current economic slump, however, is extremely severe, with the consequence that employees who lose their jobs will have a harder time finding other work. Higher unemployment caused by higher labour costs would probably then become permanent.

It is also possible that a high increase in labour costs in the depths of a severe slump would be a sign of more lasting dysfunction in wage formation. The consequences could include permanently lower investment as well as higher equilibrium unemployment.<sup>10</sup>

#### **DIFFICULT CONDITIONS IN MANUFACTURING**

The extent of profitability and output losses varies considerably among different areas of the economy. In terms of decreased demand and output, the economic downturn has hit manufacturing much harder than other sectors of the economy (see Diagram 11). The percentage decrease in hours worked has also been clearly largest in manufacturing (see Diagram 12). Many manufacturing firms producing intermediary inputs or investment goods find themselves in a very vulnerable position.

 $<sup>^8</sup>$  See the minutes of the monetary policy meeting of the Riksbank's directorate, July 1, 2009, no. 3, especially Lars Svensson's analysis of the conditions for monetary policy.

<sup>&</sup>lt;sup>9</sup> As measured by Prospera.

 $<sup>^{10}</sup>$  The simulation analyses discussed here and in Chapter 3, however, are based on the assumption that equilibrium unemployment will not be affected by different rates of increase in wages and salaries during the contract period 2010–2012.

Furthermore, many Swedish firms are suffering from liquidity problems. In the *Economic Tendency Survey* of August 2009, 31 percent of firms questioned responded that it was either harder or much harder than normal to finance operations. Liquidity problems make it more difficult for firms to get through the hardships of a slumping economy, together with high labour costs.

Depressed profits and liquidity problems require flexible central pay agreements in which greater consideration than normal is given to specific conditions in different industries and firms.

# 1.5 Occupational Segregation by Gender Contributes to Pay Gap between Women and Men

The gap in average earnings<sup>11</sup> between women and men in the private sector diminished steadily from 1960 to 1980. This trend was strongly linked to an increasingly high level of education for women. From the late 1990's to the present, on the other hand, the changes in the relative average levels of earnings for men and women have been minor.

## LITTLE CHANGE IN PAY GAP BETWEEN WOMEN AND MEN IN THE PRIVATE SECTOR

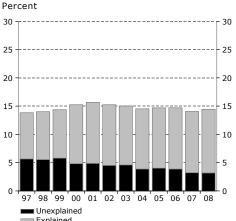
Measured as the difference in average earnings between women and men for hourly workers in the private sector,<sup>12</sup> the pay gap has been largely unchanged during the period 1997–2008. In 2008 the gap was 14.4 percent (see Diagram 13). For salaried employees the pay gap has gradually decreased, but it remains larger than for hourly employees. In recent years, the pay gap for salaried employees has slightly exceeded 20 percent (see Diagram 14). One factor contributing to the decrease in the gap is that the proportion of women working full time has increased somewhat in almost all age categories.<sup>13</sup>

#### OCCUPATION THE PRINCIPAL EXPLANATORY FACTOR

A portion of the pay gap between men and women is explainable by observable factors that affect pay. On average, female and male employees differ somewhat in regard to age and education; they tend to work in different occupations and industries and to have different job assignments. When account is taken of

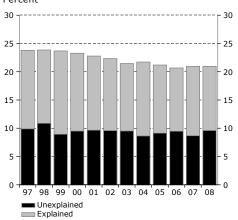
 $^{11}\,\mbox{The}$  analysis here and in Chapter 4 applies to earnings per unit of time – hourly earnings or monthly earnings.

Diagram 13 Pay Gap, Hourly Workers, Private Sector



Sources: Statistics Sweden and NIER.

Diagram 14 Development of Pay Gap, Salaried Employees, Private Sector Percent



Sources: Statistics Sweden and NIER.

 $<sup>^{\</sup>rm 12}$  All analyses reported in this section and in Chapter 4 refer to hourly workers and salaried employees in the private sector.

 $<sup>^{13}</sup>$  Part-time work is usually associated with somewhat lower hourly or monthly earnings than full-time work, one reason being that experience accumulates more slowly from part-time work.

these differences, it is possible to break down the pay gap into a statistically explained portion and an unexplained portion.

As shown in Diagram 13, roughly three quarters of the pay gap for hourly workers is explained by differences in observable characteristics, and there has been a gradual decrease in the unexplained portion during the period 1997–2008. In 2008 the pay gap was measured at 14.4 percent, of which 11.1 percentage points could be explained by observable factors. This still leaves about 3 percent as the unexplained portion of the pay gap.

The explained portion of the pay gap is attributable primarily to differences in age, industry, education and occupation. Male workers are somewhat older on average and thus more experienced than their female counterparts. Of all explanatory factors, occupation is the one that contributes most (4.1 percentage points) to the pay gap for workers, since occupations dominated by men are on average better paid than those where most employees are women.

For salaried employees, the unexplained gap between the pay of men and women in 2008 is larger, at 9.5 percent, and on the whole it has not diminished in the past 10 years. The total pay gap for salaried employees in 2008 was 21.0 percent, of which more than half, or 11.5 percentage points, can be explained by observed characteristics. For salaried employees, differences in occupation are clearly the most important factor underlying the pay gap, accounting alone for a gap of 7.6 percentage points.

The larger pay gap for salaried employees reflects the generally higher dispersion in pay for this category than for hourly employees. The category of salaried employees is more diverse in terms of education, and here salaries are set to a higher degree on an individual basis; these factors may have contributed to greater disparities in pay and to a larger pay gap.<sup>14</sup>

### OCCUPATIONAL GENDER SEGREGATION AN IMPORTANT FACTOR CONTRIBUTING TO THE PAY GAP

The unexplained part of the pay gap is often regarded as a measure of pay discrimination, but it can also be affected by factors that cannot be observed and included when the gap is decomposed into its various components. The unexplained pay gap should therefore be interpreted with caution. Moreover, the education and occupational choices of men and women may reflect inequality of occupational choice between men and women.

It is also possible that differences in earnings for different occupational categories reflect unequal valuation of the work of men and women. Analysis of the pay gap shows that the occupational affiliation of men and women is a major factor contributing to the pay gap between the sexes. The Swedish labour mar-

 $<sup>^{14}</sup>$  See *Report on Wage Formation 2007* for a detailed analysis of the relationship between decentralization of wage formation and wage dispersion.

ket is clearly segregated by gender, and a considerable portion of the pay gap is due to the fact that pay is usually higher in occupations dominated by men than in those where women predominate. In 2008, female hourly workers in male-dominated occupations received 12.1 percent higher pay than female hourly employees in an occupation dominated by women (see table 1). Only 3.0 percentage points of this discrepancy can be explained by differences in observable factors that affect pay. For men in the category of hourly workers, there is a larger gap between work in a male-dominated occupation and in a female-dominated; in 2008 male hourly workers in male-dominated occupations earned on average 21.4 percent more than men in occupations dominated by women. Only 7.2 percentage points of this gap can be explained by differences in observable factors (see table 1).

Table 1 Total, Explained and Unexplained Pay Gap between Male-Dominated and Female-Dominated Occupational Categories, Respectively, Private Sector, 2008

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	Total	Explained	Unexplained
Female-Dominated			
Hourly workers	12.1	3.0 (25 %)	9.1 (75 %)
Salaried employees	26.4	21.1 (80 %)	5.3 (20 %)
Male-Dominated			
Hourly workers	21.4	7.2 (34 %)	14.2 (65 %)
Salaried employees	29.7	23.8 (80 %)	5.9 (20 %)

Note: Percentage of total difference is shown in parentheses.

Sources: Statistics Sweden and NIER.

The pay gap between men and women also varies among occupational categories depending on gender distribution within the occupation. If all occupational groups are classified according to three categories of segregation – female-dominated occupations, gender-integrated occupations and male-dominated occupations<sup>15</sup> – it is possible to repeat the calculation of the pay gap and the decomposition into explained and unexplained shares separately for individuals in these three categories. The pay gap is greatest for hourly workers in male-dominated occupational categories, as well as in gender-integrated occupational categories of salaried employees (see table 2).<sup>16</sup>

 $<sup>^{15}</sup>$  An occupational category is considered male-dominated if the proportion of men in it exceeds 66 percent and female-dominated if the proportion of women exceeds 66 percent. The remaining occupational categories are treated as gender-integrated. See Chapter 4.

<sup>16</sup> See Chapter 4.

Table 2 Pay Gap by Segregation Sector for Hourly Workers and Salaried Employees, Private Sector, 2008

Percent

	Total	Explained	Unexplained
	Iotai	Explained	Onexplained
Hourly workers			
Male-dominated occupations	9.2	4.1	5.1
Gender-integrated occupations	4.8	2.2	2.7
Female-dominated occupations	-0.1	-0.9	0.8
Salaried employees			
Male-dominated occupations	8.8	-3.4	12.2
Gender-integrated occupations	13.7	2.0	11.6
Female-dominated occupations	5.6	0.9	4.6

Sources: Statistics Sweden and NIER.

The overall pay gap for hourly workers, 14.4 percent in 2008 (see Diagram 13), naturally reflects differences in pay between these three segregation categories. When the statistics are divided according to these three groups, the observed pay gaps are smaller, since the division in itself explains a portion of the total pay gap. The results for hourly workers in Table 2 also indicate, however, that there is a significant pay gap (9.2 percent) within male-dominated occupational groups. In gender-integrated occupational groups the gap is roughly half as large (4.8 percent), and there is no pay gap at all in favour of men in female-dominated occupational categories.

Among salaried employees, the pay gap is greatest in the category of gender-integrated occupations, 13.7 percent (see table 2). Only 2 percentage points of this gap can be explained by differences in observable factors. In the category of maledominated salaried occupations, there is also a substantial gap, 8.8 percent. The explained portion for this gap is negative (-3.4 percent), which means that female salaried employees in maledominated occupations – when observable factors affecting pay are considered – should earn on average 3.4 percent *more* than men. Closer analysis indicates that this finding is mainly a reflection of the fact that women in these relatively well-paid maledominated salaried occupations on average have more years of education than men. At the same time, however, there is an unexplained pay gap of 12.2 percent in favour of men; the total gap thus ends up at 8.8 percent in favour of men.

### THE PAY GAP MAY HAVE BEEN REDUCED BY PRIORITIZING HIGHER EARNINGS FOR EMPLOYEES WITH LOW PAY

In the 2007 round of collective bargaining, the Swedish Trade Union Confederation (LO) advanced demands for prioritizing higher earnings for employees with low pay, and for allocating part of the overall pay increase to promoting equality in pay. The reasons given for these demands included the gender-based segregation of the labour market and the difference in earnings between male- and female-dominated bargaining areas. The negotiations resulted in clear commitments to raise the earnings

of employees with low pay. Prioritization of pay increases for employees with low earnings, however, was implemented in rather diverse ways by different unions. In many agreements, the implementation was linked to the proportion of low-paid women in the respective bargaining areas, so that in femaledominated industries with low pay the increases would be higher, on average, than in other industries. There is also variation among bargaining areas in the extent to which the central agreement regulates efforts to improve the pay of employees with low earnings as well as the allocation for promoting equal pay. For these reasons, it is impossible to measure very precisely how the pay gap between women and men is affected by these allocations for equal pay, and by prioritizing pay increases for employees with low earnings. There may also be variations among bargaining areas and firms in regard to the distribution of these efforts over time during the contract period.

It is possible, however, to adopt an indirect approach and use statistical methods to make an approximate estimate of how the pay gap between women and men has been affected by the low pay and equality allocations. The NIER's econometric analysis<sup>17</sup> suggests that prioritization of pay increases for employees with low earnings reduced the unexplained portion of the pay gap for hourly workers by about 1.5 percentage points in 2007 compared with 2006. However, the analysis also suggests that only a minor part of the effect lasted into 2008. These assessments are preliminary and uncertain, since the pay gap also depends on numerous other factors and structural effects on the labour market.

<sup>&</sup>lt;sup>17</sup> See Section 4.4.

#### **CHAPTER 1 IN BRIEF**

- A low but positive average annual increase in labour costs, between 1 percent and 2.5 percent during the period 2010– 2012, is considered optimal for furthering employment and output during the contract period 2010–2012.
- Output and employment cannot be boosted by high pay increases. The more the annual increase in labour costs exceeds 2.5 percent, the higher unemployment will be and the higher the incidence of chronic exclusion from labour market
- Stagnation or reduction in pay and labour costs in 2010–2012 would not help to increase output and employment, but would be reflected primarily in lower inflation and thus in a higher real rate of interest.
- In the present state of the economy, it is more important than usual that collective bargaining agreements allow for flexible wage formation adapted to the local conditions of firms and employees.
- The total pay gap between women and men for the group of hourly workers in the private sector is about 14 percent, with no significant change during the period 1997–2008.
- For salaried employees in the private sector, the pay gap is larger, over 20 percent. This gap gradually diminished during the period 1997–2008.
- Part of the gap can be explained by differences in men's and women's average observable characteristics. Differences in occupational categories provide the greatest contribution to the pay gap. In 2008 the unexplained gap was roughly 3 percent for hourly workers and almost 10 percent for salaried employees.
- The Swedish labour market is clearly segregated into maleand female-dominated occupations.
- The highest average earnings are found in male-dominated occupations. For hourly workers in female-dominated occupations, there is hardly any pay gap between women and men. For salaried employees the gap is greatest in genderintegrated occupational categories.
- Both women and men earn more if their occupations are dominated by men than if they are dominated by women.
   This finding applies even after consideration is given to differences between the averages for men and women in regard to observable factors affecting pay.
- The 2007 round of collective bargaining resulted in prioritization of pay increases for employees with low earnings, and in allocation of part of the overall pay increase to promoting equality in pay, primarily for employees in unions affiliated with LO (the Swedish Trade Union Confederation). An econometric analysis suggests that these efforts helped to reduce the pay gap in 2007 but that only a portion of the effect remained in 2008.

#### Contacts

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

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