Incentive pay and gender gaps in the Nordic countries

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Abstract

This paper explores the effect of incentive pay on gender pay gaps in Finland, Norway and Sweden among professionals and managers within MNCs. Mercer 2009 Total Remuneration Survey data is utilised. Uniform job ladder, occupation, industry and wage definitions enable consistent cross-country comparisons. In addition to the between-country variation, the within-country variation of gender gap with respect to incentive pay is analysed. The results indicate that gender pay gaps differ among the Nordics and that occupation and industry controls have dissimilar effects across countries. Irrespective of wage element, Finland and Norway are characterised by higher gender gaps than Sweden. Incentives tend to accentuate gender pay gaps. In intention to alleviate the absence of job performance data, this study utilises a rudimentary, promotion-based measure for job performance. In Finland it does affect the gender gap. However, irrespective of gender, high-performers are penalised in Sweden but not in Finland or Norway. The Finnish data also allows the identification of low-performers. Low job performance is rewarded in Finland. Nonetheless, the job performance findings should be interpreted with cautions.

Keywords: *wage differential, incentive pay, job ladder, gender, job performance*

JEL Classification: *J31, J70*

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1 Introduction

Gender pay gap continues to attract considerable interest. Although the gaps have narrowed since 1970s, male employees still enjoy substantial wage premiums practically across societies. After decades of decline, the majority of OECD countries have witnessed plateauing gaps since the late 1990s (Blau & Kahn, 2000). In certain countries the trend has even reversed albeit marginally. Various explanations have been put forth to provide convincing narratives for these patterns – industrial changes, shifts in labour participation rates and the decline of unions, for example. One candidate is the widespread adoption of performance pay, as it has been shown to drive income inequality, especially in the top-end of the wage distribution (Lemieux et al., 2009). Could performance pay also explain movements in gender gaps? The findings presented in Rica et al. (2010) suggest that performance pay is not gender-neutral.

Nordic countries constitute an intriguing backdrop to explore the effects of incentive pay on gender gaps. The societies and their heritage of employee relations share much in common – interventionist labour market policies, low wage inequality and strong trade unions – which allows to reflect gender pay issues in comparably similar institutional contexts. In fact Nordic countries demonstrate how similar labour market institutions can give rise to distinct patterns of gender equality.

According to Eurostat, the 2008 unadjusted pay gap in the Nordic countries ranged between Finland's 20% and Sweden's 17.1%. Norway held the middle position with 17.2%. By European standards the Nordic figures are at average. While the EU27 has an mean gap of 17.6%, the comparison does not account for the differences in female workforce participation rates between countries. Indeed, after labour participation, human capital and occupational characteristics have been controlled for, Nordic countries usually witness the lowest unexplained gaps. Most studies put the unexplained gender wage gap at 5 to 10% in the Nordic countries (see Korkeamäki & Kyyrä, 2006; Rosholm & Smith, 1996; Milgrom et al., 2001; Petersen et al., 1997).

Gender gap literature is abundant on national level yet comparative cross-country studies remain scarce. Most likely this stems from the lack of datasets with standardised occupations, job ladders, education levels and wage definitions. Hence consistent cross-country gender gap estimates with employee benefits, short- and long-term incentives (henceforth STI and LTI, respectively) are in relatively short supply.

This study explores gender wage gaps in Finland, Norway and Sweden in 2009 using comparable datasets[1] with particular focus on incentive pay. As the sample mostly represents professional and managerial employees, the results may not generalise to blue-collar workers – indeed James et al. (2003) showed in

[1]The matched employer–employee data is based on Finnish, Norwegian and Swedish Mercer Total Remuneration Surveys for 2009. In order to ensure consistency among different jobs across countries, all positions have been evaluated using Mercer's International Position Evaluation (IPE) system. Instead of this obscure abbreviation, the term 'job ladder' is used throughout the text for IPE.

the Swedish setting that gender gap is increasing along the wage distribution. Similar results have been found in Finland (Arulampalam et al., 2007). All organisations operate on the private sector and the sample is skewed towards Nordic and global multinational corporations (MNCs). Hence the results are unlikely to apply outside the Nordic white-collar private sector.

As stated, this study explores the influence of incentive pay on gender gaps. STIs, LTIs and employee benefits are compounded to estimate the gender gaps in total compensation. Incentives are also briefly covered at the policy level – namely, the provisions of incentive schemes are explored from the gender perspective.

This dataset contains detailed job ladder information for all professional and managerial employees in a cross-country context. Consistent job ladders for managers are often absent as in Korkeamäki & Kyyrä (2006). Or they are somewhat coarse to capture the elaborate structures and responsibilities of modern organisations as in Asplund et al. (2008). Strong empirical and theoretical arguments speak for detailed job ladders as firms utilise them in the wage setting process (Lazear & Rosen, 1990; Baker et al., 1994).

Data on employees' job performance is not available. To alleviate this deficiency, a very tentative, promotion-based attempt to quantify the effect of job performance on pay is made. In short, employees with particularly fast or slow promotion patterns are identified. One interest is job performance's effect on the gender gap. However, as will turn out the performance premium itself is much more intriguing than the gender perspective.

This paper continues as follows. Section 2 describes the data. Section 3 specifies the econometric model. Section 4 briefly explores incentive pay policies in the Nordics. Section 5 presents the findings. Section 6 takes a slight detour to the effects of job performance. Section 7 concludes. Tables and figures are in the Appendix.

2 Data

The data is based on Mercer[2] 2009 Total Remuneration Surveys. Summary of sample statistics are given in Table (1). The samples for Finland, Norway and Sweden are comparable in most respects. They cover similar companies and share consistent definitions of pay elements. Occupational, industry and job ladder coding adhere to Mercer's standards. However, there are some dissimilarities. Finnish and Swedish sample sizes are much higher than Norway's. Furthermore, only Finnish data contains information of employees' education levels. The lack of education data for Norway and Sweden would *a priori* look like a serious misfortune. Yet as the Finnish sample demonstrates, the absence of education data does not compromise the robustness of the results in Norway and Sweden.

The sample includes multiple pay elements. Those covered in this study are fixed pay, STIs and LTIs and benefits. Three pay aggregates are composed. The

[2]Mercer is a wholly owned subsidiary of Marsh & McLennan Companies, Inc.

first includes only fixed pay[3]. The second adds STIs which represent payments subject to previous year's individual and/or company performance. The third, total compensation, compounds the previous with LTIs and benefits. LTIs represent share options, performance shares and cash plans. They have been valuated with Black & Scholes method and are thus sensitive to assumptions about interest rates, dividends and share volatility. Benefits are included by their taxation-value or cost. Due to uncertainties regarding valuations of the LTIs, the total compensation figures are less reliable than fixed pay w/wo STIs which are based on actual payments.

Job ladders are instrumental in corporate wage setting (Pekkarinen & Riddell, 2008; Baker et al., 1994). Mercer IPE uses organisational layer, financial accountability, management breadth and skill requirements to determine the job ladder. Due to global standardisation, they are consistent across firms, occupations and countries. Although companies vary in their organisational structures, typically the difference between vertical layers translate in 2 to 3 job ladders. A given manager is therefore 2 to 3 job ladders above its direct subordinates. Among professional positions, the interval equates to 1 level of seniority. Promotions, then, typically yield an increase of 2 to 3 job ladders. Stylised links between job ladders and titles are given in Table (1). Job ladders are typically assigned without information of employees' wage, gender or other individual attributes. As can be observed from Figure (1), in Nordic corporations clerical employees and junior professionals are predominantly women, senior professionals and managers men. This polarisation is starkest in Finland where female top executives are virtually absent. Norwegian corporations are most gender-balanced.

Occupational codes adhere to classification which broadly resembles Standard Occupational Classification (SOC) used extensively in the U.S. Industry codes are similarly related to the North American Industry Classification System (NAICS). Countries are divided into geographical regions according to their relevant labour market structures. Finland is composed of three, Norway of eight and Sweden of five regions.

Education information is only available for the Finnish data. It reflects employee's highest educational attainment. The levels match UNESCO's International Standard Classification of Education (ISCED). Due to compulsory primary education in Finland, observations with only pre-primary education (level 0) are absent. Hence only six of seven official ISCED levels are present. Finnish education data is used to show that – conditional on having sufficient job ladder and occupational information – it does not have significant impact on the gender wage gap. Since education systems are fairly comparable across Nordic countries, the findings regarding Finland should generalise in this respect.

Most employer–employee datasets lack direct information on individual ability or cognitive skill. This dataset is no exception. Whether this gives rise to significant omitted variable bias, is debated in the literature (Blackburn & Neumark, 1993). However, in some respect even more important and related in-

[3]Overtime payments and commissions are omitted.

formation is often absent: productivity or job performance. Since performance reviews frequently form the basis of merit pay increases in corporations, their absence may contribute to omitted variable bias. This study utilises interaction terms which should at least loosely correspond to a high or low job performance. The proposed method is arguably rudimentary: individuals who are promoted to executive positions – job ladder above 60 – under the age of 40 are considered high-performers. Low-performers are identified by interacting job ladder, age and education. In particular, employees above the age of 40 with job ladder below 52 and master's degrees are denoted low-performers[4]. These employees, then, have experienced below-average promotion patterns despite being highly educated.

Although these promotion-based performance indicators discriminate by age, two factors speak for them. First, these measures do not directly hinge on performance evaluations which can be subjective. Second, they are quite objective since competition should ensure that MNCs promote on merits. Hence to some extent promotion patterns reflect individuals' actual performance over long periods of time. Yet the approach is rudimentary, and hence the results should be interpreted with reservations.

3 Estimated model

This study make use of the human capital approach originally proposed by Mincer (1970). The wage model is estimated by using ordinary least squares (OLS). Regression models have the following functional form

$$\ln W_i = \beta_0 + \mathbf{X}_i\beta + \mu_i \tag{1}$$

where $\mathbf{X}_i$ includes all human capital, occupational, industry and performance characteristics, β is a vector of coefficients and $i \in \{1, ..., N\}$ denotes the number of observation. Job ladder, age and tenure has been included in quadratic terms as is typical in the field. Several model specifications are presented using different controls to distinguish the individual effects of variables.

As the objective is to disentangle the role of incentives, (1) is estimated on each pay element separately. There are few caveats, however. First, the set of firms implementing incentive pay schemes are most likely not random. For instance, they might be more aware of gender issues and thus apply equal pay policies that alleviate wage gaps. Since practically every firm in the data has an incentive scheme in operation, this sample bias would result in under-estimate of the gender gap. Second, within firms employees are not necessarily assigned to incentive schemes by chance. Higher ability individuals might be offered incentive plans more frequently than others. Provided that this is independent of gender, estimates of wage gaps would remain unbiased.

Estimation of wage regressions are notoriously prone to endogeneity resulting from unobserved variables. In this study the lack of ability or productivity

[4]Low-performers could only be identified for Finland since the Norwegian and Swedish datasets do not contain education.

variables might bias the estimates since they probably influence both the error term and job ladder. However, its effect on gender gap might be ambiguous. Pekkarinen & Riddell (2006) has shown that in Finland female employees might be more productive than males at a given job ladder because the former face a higher promotion threshold. Hence conditional on job ladder and other observed variables, gender wage gap might be under-estimated if employers compensate females for their higher productivity.

To certain extent even occupations and industries might be subject to endogeneity. Higher ability individuals could opt for occupations that are characterised by better pay. And it is not unreasonable to assume that some ability stratification might take place also across industries. In fact anecdotal evidence suggest that this kind selection process can be observed – for example, in United Kingdom finance and banking firms are generally believed to cream off high ability labour. Yet as with other potential sources of endogeneity, provided that this possible selection bias is not gender-specific, wage gap estimates would remain unbiased.

The potential deficiencies addressed above should not devalue inferences in the between-country context. Given comparable labour market institutions in the Nordics, it is reasonable to expect that the omitted variables have broadly similar effects across countries.

4 Incentive pay policies

Since one key objective of this study is to disentangle the role of incentives on the gender pay gaps, they should be discussed in detail. This is important especially with respect to STIs. First, not all employees are granted incentives. Second, their value is often defined as a share of fixed wage. Third, incentives yielding equal monetary compensation at the target-level[5] might result in substantially divergent expected values as probability of reaching that level depends on firm-specific budgeting policies.

The first two issues can be estimated since the data contains information of eligibilities and target-level payments for STIs. However, the third is less clear and can not directly be investigated. In theory the strictness could be estimated from the ratio of target-level and actual incentives but the results might be distorted by exogenous factors such as economic fluctuations.

Out of these three factors which determine the expected values of incentive plans, the first two can be assessed in gender perspective. First, do male and female employees differ in eligibilities of STIs given their human capital, occupation and industry characteristics? Second, are there any differences in target-level incentives?

Since the data contains information on the target-level STIs as a share of fixed wage, policy-level gender-biases can be estimated with (1) by treating the target-level incentive as the dependent variable. Estimates of these are presented

[5]Target-level typically means that budget is met or individual performance is at the average level in the given position.

in Table (2). The results indicate a diverging pattern between countries. Finland and Sweden have virtually no gender gap but Norway has statistically significant 2 percentage points. Since the median STI of fixed wage is 10% in Norway, the figure represents substantial gender gap in the provision of incentives. However, with absolute target-level STIs each country would have shown a gender gap – yet that would reflect the gap in fixed wages, not in incentive policies.

The previous examined the magnitude of STIs relative to fixed wages for observations with target-levels reported. Yet the eligibilities might still vary by gender. This was tested by using logistic regression on the prevalence of STIs. In Finland and Norway men are 24 and 11%, respectively, more likely to be eligible for STIs. Norway's gap is insignificant, however. In Sweden men are 23% less likely to be eligible for STIs.

In short, it seems that Nordic countries differ slightly in their provision of STIs by gender. Finland has virtually no gap in target-levels but substantial gap in eligibility. In Norway men have both higher relative target-level STIs and eligibilities. Sweden has equal relative target-level STIs but lower eligibility among male employees. However, OLS estimations with incentives are based on actual STIs and include also employees who are not eligible for incentives. The brief discussion above concerns the incentive policies – whether there are qualitative or quantitative differences in the provisions of STIs between sexes.

Table (2) also shows the frequency of LTI provision among Nordic MNCs. As can be seen, the eligibilities are rather low. Since men occupy the highest echelons of the corporate ladders – Figure (1) is quite convincing indication of this – they are also granted LTIs disproportionately. LTIs contribute to gender gaps, but their effect is somewhat limited by the extent of their provision.

5 Empirical results

5.1 Fixed wage

Fixed wage OLS gender gaps are shown on Table (3). It indicates that Nordic countries experience differences in gender gaps. Irrespective of the controlled dummies, Finland shows consistently the highest and Sweden the lowest gender gaps. Norway comes in the middle.

Estimates with the most narrow set of controls – Model (1) – yields gender gap estimates of .062, .059 and .021 for Finland, Norway and Sweden, respectively. These show that absent occupational and industry controls, Finland and Norway experience substantially higher gender gaps than Sweden. This is quite interesting result since the latter's raw wage gap was found to be around the Nordic average. It already suggest that in Sweden the human capital endowments – most notably job ladder – explain larger majority of the gender wage gap than in other Nordic countries. Naturally they explain substantial part of the gap in Finland and Norway but in these cases human capital endowments have slightly less marked effect.

As is implied from the R^2 figures, this narrow set of controls can already

explain substantial share of the variation in fixed pay. This supports the argument put forward previously that job ladders determine pay in Nordic MNCs considerably. In fact studies done with U.S. data employing job ladders have evidenced similarly high R^2 levels (Baker et al., 1994).

With full set of controls, Finnish, Norwegian and Swedish gaps are .066, .039 and .032, respectively. The between-country differences are statistically significant and suggest that Nordic countries experience genuinely distinct gender wage gaps.

However, it is interesting to note that the additional controls – Models (2) and (3) – have somewhat dissimilar effects across countries. In Finland occupation and industry dummies leave fixed wage gender gap unchanged. Since sex segregation is abundant in Finland – as is documented for example in Melkas & Anker (1997) – wage spreads across occupations and industries must consequently be limited. Norway experiences a declining pattern of gender gap as controls are added. This indicates that Norwegian men are employed in occupations and industries that are characterised by higher wages. In Sweden the reverse is true: adding controls increases the gap. It suggests that gender gap is induced by occupation and industry. Moreover, it might indicate that Sweden exhibits wage spreads across occupations and industries, and additionally that they are segregated by sex. Swedish women tend to populate better paying occupations and industries but experience relative disadvantage in pay.

These findings are mostly consistent with estimates found in other studies. However, the Swedish gap found here is somewhat below the results obtained previously. Finnish within-job gender gap was shown in Korkeamäki & Kyyrä (2006) to be 6%. Petersen et al. (1997) reported a within occupation–establishment white-collar gap of 6.2% in Norway in 1990. As found in Milgrom et al. (2001), in 1990 Swedish white-collar employees excluding managers experienced a within occupation–establishment gap of 5%. Despite representing different points of time, the estimates are strikingly similar across studies. It speaks volumes about the persistence of the gender gaps even in the Nordic countries.

Education data is available for a subset of 5389 Finnish observations and is reported on an ISCED compliant scale. In order to test whether it affects the gender gap when all other controls are available, this subset was regressed with and without education. Fixed wage regression with and without education data resulted in gender gaps of .060 (.004) and .055 (.004), respectively, with standard deviations in parentheses. These marginal differences in estimates indicate that education does not affect gender gap considerably after other relevant controls are present. As Nordic countries share broadly similar labour market institutions, it could be argued that the absence of education data in Norway and Sweden should not compromise their estimates.

5.2 Fixed wage with STIs

Estimates for OLS regressions with STIs are presented in Table (4). STIs have substantial effects on gender gaps in Finland and Norway. In Sweden their

influence is insignificant. With the most narrow set of controls – Model (1) – the gaps in Finland, Norway and Sweden are .080, .086 and .025, respectively. Relative to fixed wage regressions, the inclusion of STIs therefore accentuates the between-country differences.

Again Finland and Norway show similar OLS gender gaps although their raw wage gaps are of unequal magnitudes. Hence relatively larger share of the gender gap is explained by the controlled factors in Finland than in Norway. In Sweden substantial part of the raw gender gap is explained away by even the most narrow set of controls. As in the previous case, adding controls increases the gap – it again suggests that Swedish female employees work in above average paying occupations and industries.

With full set of controls the gaps reach .081, .063 and .036 in Finland, Norway and Sweden, respectively. However, the relative order of between-country gender gaps while including STIs remain unchanged. Adding occupational and industry controls changes the magnitudes but do not warrant for different qualitative conclusions compared to the fixed wage setting. Hence especially for Finland and Norway STIs represent mostly a level-shift in gender gaps. In relative terms the differences are most significant in Norway, where the inclusion of STIs can increase gender gap by .03 log points over the fixed wage OLS estimates. In Sweden the increases over fixed wage gaps are less marked and just significant. Finland comes somewhere between.

Given the tentative evidence of STI policies described above, these patterns were to certain degree expected. In Norway male employees were shown to have 2 percentage points higher target-level incentives and higher eligibility than females. Men in Finland have advantage in eligibility. In Sweden the lower STI eligibility among men is compensated by higher fixed wage to result in practically unchanged gender gap between the two pay elements. The incentive policies are hence consistent with the findings presented in Table (4).

The inclusion of STIs has elevated the Finnish and Norwegian gender gaps above the 5 to 6% reported in previous studies. Although the findings presented here might be distorted by the over-representation of professionals and managers in the sample, they invariably point to a direction where performance pay should not be considered gender-neutral.

5.3 Total compensation

When LTIs and benefits are included, estimates of the gender wage gaps increase in all Nordic countries. OLS estimates for total compensation gaps are presented in Table (5). As with STIs, invoking benefits and LTIs represent a level shift in gender gaps – all estimates irrespective of controls increase. Model (1) results in gender gaps of .081, .095 and .048 in Finland, Norway and Sweden, respectively. Especially Sweden experiences a substantial relative increase in the gender gap.

A range of possible explanations could potentially account for these results. First, the provision of employee benefits and/or LTIs might simply be male-biased between occupations and industries in Norway and Sweden. Second, these biases could take place within occupations and industries. Third, relatively

small number of very high LTI values could result in abnormally high OLS gender gap estimates. All three explanations are likely to contribute to the increasing gap found in Norway and Sweden. Some indication of these effects are found in the raw gender gap figures presented in Table (1). As can be seen, the inclusion of benefits and LTIs increase the raw gender gap in Sweden considerably.

However, it is somewhat puzzling that Finland does not fit this pattern – namely, that the raw wage gaps are relatively unaffected by the pay elements. It is perhaps symptomatic that as the gender gap differences between pay elements in Finland are relatively low compared to other Nordic countries, *a priori* it should not be expected to result in drastic changes among OLS gender gap estimates. Only industry controls invoke changes that are just statistically significant.

Model (2) accounts for the variation between occupations. In Norway the introduction of these controls results in decline of the total compensation gender gap – this implies that male-biased occupations are associated with higher prevalence of benefits and/or LTIs. The reverse is true in Sweden where Model (2) shows larger gap than Model (1). This indicates that female-biased occupations are associated with higher prevalence of benefits and/or LTIs.

Model (3) accounts for the variation between occupations and industries. In Finland the gender gap increase between Model (2) and (3) is just significant, and suggests that benefits and/or LTIs are more prevalent in industries with above average female participation. Norway shows a reduction in the gender gap indicating that male-biased industries are associated with higher prevalence of benefits and/or LTIs. In Sweden the difference between Models (2) and (3) is within the margin of error.

6 Job performance

In this section a slight detour to job performance is made. However experimental the approach, the intention is to alleviate the absence of job performance data. The idea is to extract job performance evidence from actual promotion patterns. Two issues are explored: job performance's effect on gender gaps and its influence on pay irrespective of gender. As will turn out the second point, performance premium, is much more interesting. Despite the term 'job performance', the operationalisation here is unable to identify between performance and ability. Hence it remains obscure if fast promotions result from outstanding individual ability and/or job performance. In similar vein low-performers might just prefer slower career progression.

High-performers are identified by interacting the variables job ladder and age. In particular, employees whose job ladder is above 60 below the age of 40 are deemed high-performing. Broadly speaking, fast promotion have provided these employees executive team responsibilities early at their careers.

Low-performers are master's degree holders of over 40 years of age with job ladder below 52. Hence, irrespective of academic qualifications and seniority,

low-performers have not been promoted more than once during their careers. They work at best in non-senior professional positions.

An apparent problem with these formulations is that older (younger) employees can not be considered high-performing (low-performing). Furthermore, the promotion patterns must be assumed non-discriminatory from the gender perspective[6]. Yet rudimentary as this method is, it should provide some indication of the link between pay and job performance.

As can be seen from Table (6), the shares of high-performing employees are quite similar between the Nordic countries. They number from .5 to .9% of the total workforces, and the eligibility is, therefore, quite strict. High-performers represent the top 1 to 2% of their cohort. Low-performers in Finland amount to 3.6% of all observations.

As can be observed, the fixed wage gender gaps in Norway and Sweden remain intact. Only in Finland does it decrease from .066 to .056. Taken with face value this could suggest that part of the Finnish gender gap can be explained by the lower job performance of women. However, 'glass ceilings' can potentially hinder women's career development irrespective of their true job performance. The conclusion, then, is only suggestive at best.

The job performance coefficients themselves look much more interesting since they evidence very different patterns across the Nordics. In Finland high-performers are compensated in line with others, yet low-performers have a statistically significant pay premium of .053. The sign of the low-performer coefficient is rather counter-intuitive. In Norway the high performance coefficient is -.035 which could suggest of a minor if statistically insignificant penalty for high-performers. However, the picture is completely different in Sweden where the high-performers face a highly significant negative coefficient of -.165. It seems, therefore, that high-performers are severely punished in the egalitarian Sweden. This finding is robust to wage elements which is notable, since STIs and especially LTIs could be used to increase retention among high-performers in particular. Actually the opposite is true. Quite startlingly with total compensation the Swedish job performance coefficient at -.218 is even more punitive than with fixed wage.

Disturbingly, most performance coefficients are of the wrong sign. High (low) job performance should rewarded (penalised) but Finland and Sweden tend to experience the opposite. However, these results are not without many caveats.

7 Conclusions

The central finding of this paper is that Nordic countries experience gender gaps of unequal magnitudes. OLS estimates show that Finland and Norway have substantially higher gender gaps than Sweden. These results are robust to pay elements and/or occupational and industry controls. Raw wage gaps of .196, .136 and .155 for Finland, Norway and Sweden, respectively, reduce to .066, .059 and .032. These declines imply that large parts of the Nordic gender gaps can

[6]Reflecting on Figure (1) this assumption is potentially very heroic.

be explained away by sex segregation in job ladders, occupations and industries. Furthermore, incentives tend to accentuate the between-country polarisation – indeed with STIs the differentials reach .081 and .063 in Finland and Norway, respectively, but .036 in Sweden. These results are consistent with the findings concerning incentives, namely that in Finland and Norway eligibilities and/or target-levels are male-biased.

Incentives and benefits tend to pronounce within-country gender gaps among Nordic MNCs. Most striking evidence can be seen in Norway and Sweden, where gender gaps almost double when moving from fixed wage to total compensation. Especially in Sweden the provisions of LTIs and benefits are strongly male-biased. In Finland gender gaps are less sensitive to pay elements, which is already evident from the raw figures. With full controls the total compensation gaps reach .086, .072 and .056 in Finland, Norway and Sweden, respectively.

It is interesting to note the disparities between raw and OLS gender wage gaps in Norway and Sweden. Raw fixed wage and total compensation gender gaps are higher in Sweden than in Norway. This is consistent with OECD estimates based on a more representative sample (Kahn, 2010). However, with OLS the pattern reverses – Norway has higher gender gaps irrespective of the pay element. These imply that Sweden experiences more pronounced between-gender human capital, occupational and industry differentials. To great length they explain the larger raw gaps found in Sweden. Hence it could be argued that Norway has simultaneously less 'discriminatory' labour market institutions – for example, smaller job ladder gap – but pay policies that put women at disadvantage. Sweden seems to have the opposite situation.

Of the Nordic countries, Finland has consistently highest raw gender gaps. With few exceptions, also its OLS gaps top the Nordic figures. However, Finnish gender gaps are largely unaffected by the occupation and industry controls. These imply that between-occupation and between-industry wage differentials are relatively low in Finland. Consequently, and corroborating with evidence in Korkeamäki & Kyyrä (2006), the majority of the raw gender gap is explained by between-gender differentials in job ladders. As is already evident from Figure (1), Finnish women are employed in substantially less demanding jobs than men.

A very rudimentary promotion-based method to identify high- and low-performers is utilised. The findings suggest that high-performers are penalised in Sweden by premium of -.165. Finland and Norway do not evidence anything alike. However, low-performers are rewarded with a pay premium of .056 in Finland. Although more elaborate approach is needed, these results are thought-provoking since the coefficients are of wrong sign. Intuitively high-performers should be rewarded and low-performers penalised.

Norway holds an important policy lesson regarding the persistence of gender gaps. Despite being able to the decimate the sex segregation in job ladders – which is often cited as being the single most important source of the gender gap – wages have not equalised. This could suggest that removing 'class ceilings' might not be enough to counter the gender gap.

The findings presented here indicate that incentives are not gender-neutral even among the Nordic MNCs. Indeed the gender gaps are frequently more

sensitive to pay elements than to occupation or industry controls. As increasing share of compensation comprise of incentives, the dynamic development of gender gap is ambiguous – the slow gradual decline might even reverse.

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Appendix

Table 1: Descriptive statistics

	Finland		*Norway*		*Sweden*	
	Female	*Male*	*Female*	*Male*	*Female*	*Male*
Pay element						
Fixed wage	45061	54828	484463	555417	427726	499869
	(18929)	(24700)	(188615)	(247640)	(177030)	(279352)
Fixed wage with STI	47244	58613	514484	609307	448594	528916
	(21188)	(30235)	(222250)	(298276)	(197097)	(337746)
Total compensation	48497	60515	580920	699259	515330	640834
	(23937)	(34154)	(277924)	(368066)	(285441)	(491635)
Gap						
Fixed wage	.821		.872		.855	
Fixed wage with STI	.806		.844		.848	
Total compensation	.801		.830		.804	
Log gap						
Fixed wage	.196		.136		.155	
Fixed wage with STI	.215		.169		.164	
Total compensation	.221		.185		.217	
Demographics						
Age (years)	42.13	43.02	40.12	42.56	42.39	44.33
Tenure (years)	12.17	12.88	8.294	9.900	11.44	13.79
Job ladder	50.46	52.58	49.43	50.43	50.12	52.11
Sample data						
Sample size	6093	14996	1814	4399	9681	19178
Total sample size	21089		6213		28859	
Companies	138		110		191	

Notes: Standard deviations in parentheses. Gap is calculated as (female wage / male wage). Log gap equals log(male wage / female wage). Fixed is contractual wage absent overtime pay, commissions or allowances. Fixed with STIs includes the actual value of short-term incentives. Total compensation comprises adds long-term incentives and benefits, respectively. All pay elements represent annual figures in local currency. Job ladders correspond roughly to the following positions: $\leq$ 46 assistant or clerical; 47–49 junior professional; 50–53 professional; 54–57 senior professional; 55–59 manager; 60–62 director; 63–67 top management; $\geq$ 68 chief executive.

Table 2: Short- and long-term incentive pay policies

Variable	*Finland*	*Norway*	*Sweden*
Gender gap			
Eligibility for STI	.217***	.110	-.261***
	(.058)	(.076)	(0.040)
Target-level STI	-.206	.200***	.124
	(.143)	(.044)	(.077)
Overall			
Eligibility for LTI	4.6%	2.5%	4.3%

Notes: Standard deviations in parentheses. Eligibility indicates the gender difference in STI eligibility obtained with logistic regression. The figure is in log points. Target-level STI is the gender gap in target-level payment of incentive scheme and is presented in percentage points. Eligibility for LTI shows the overall share of employees with long-term incentives.

Table 3: Regression estimates with fixed wage

	Finland			*Norway*			*Sweden*		
Variable	*(1)*	*(2)*	*(3)*	*(1)*	*(2)*	*(3)*	*(1)*	*(2)*	*(3)*
Intercept	6.485***	6.997***	7.036***	8.902***	9.717***	9.633***	11.88***	12.23***	12.19***
	(0.12)	(0.125)	(0.125)	(0.18)	(0.185)	(0.188)	(0.072)	(0.078)	(0.078)
Job ladder	-0.035***	-0.049***	-0.051***	-0.019**	-0.047***	-0.043***	-0.14***	-0.149***	-0.149***
	(0.004)	(0.005)	(0.005)	(0.007)	(0.008)	(0.008)	(0.003)	(0.003)	(0.003)
Job ladder sq.	0.001***	0.001***	0.001***	0.001***	0.001***	0.001***	0.002***	0.002***	0.002***
	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Age	0.032***	0.031***	0.03***	0.036***	0.035***	0.034***	0.022***	0.022***	0.022***
	(0.001)	(0.001)	(0.001)	(0.002)	(0.002)	(0.002)	(0.001)	(0.001)	(0.001)
Age sq.	0***	0***	0***	0***	0***	0***	0***	0***	0***
	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Tenure	-0.001**	-0.001	0	-0.003***	-0.003***	-0.002*	-0.005***	-0.003***	-0.002***
	(0)	(0)	(0)	(0.001)	(0.001)	(0.001)	(0)	(0)	(0)
Tenure sq.	0	0*	0*	0	0*	0	0***	0***	0
	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Male	0.062***	0.061***	0.066***	0.059***	0.044***	0.039***	0.021***	0.037***	0.032***
	(0.003)	(0.003)	(0.003)	(0.005)	(0.005)	(0.005)	(0.002)	(0.002)	(0.002)
Controls									
Region	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Occupation	No	Yes	Yes	No	Yes	Yes	No	Yes	Yes
Industry	No	No	Yes	No	No	Yes	No	No	Yes
R^2	0.8057	0.816	0.8199	0.758	0.7905	0.8042	0.8325	0.8441	0.8493

Note: Standard deviations in parentheses. *** significant at 0.1%, ** significant at 1%, * significant at 5% and . significant at 10%. Occupational and industry codes broadly resemble Standard Occupational Classification (SOC) and North American Industry Classification System (NAICS), respectively.

Table 4: Regression estimates with fixed wage and STIs

	Finland			*Norway*			*Sweden*		
Variable	*(1)*	*(2)*	*(3)*	*(1)*	*(2)*	*(3)*	*(1)*	*(2)*	*(3)*
Intercept	9.83***	10.34***	10.34***	11.67***	12.85***	12.46***	15.53***	15.57***	15.47***
	(0.133)	(0.139)	(0.14)	(0.203)	(0.211)	(0.212)	(0.078)	(0.084)	(0.084)
Job ladder	-0.067***	-0.081***	-0.08***	-0.038***	-0.079***	-0.064***	-0.186***	-0.18***	-0.178***
	(0.005)	(0.005)	(0.005)	(0.008)	(0.009)	(0.009)	(0.003)	(0.003)	(0.003)
Job ladder sq.	0.001***	0.001***	0.001***	0.001***	0.001***	0.001***	0.002***	0.002***	0.002***
	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Age	0.033***	0.032***	0.031***	0.039***	0.038***	0.037***	0.022***	0.022***	0.022***
	(0.001)	(0.001)	(0.001)	(0.002)	(0.002)	(0.002)	(0.001)	(0.001)	(0.001)
Age sq.	0***	0***	0***	0***	0***	0***	0***	0***	0***
	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Tenure	0***	0.001***	0.001***	0	0	0.001	-0.004***	-0.002***	-0.001***
	(0)	(0)	(0)	(0.001)	(0.001)	(0.001)	(0)	(0)	(0)
Tenure sq.	0	0	0.	0*	0	0.	0*	0	0*
	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Male	0.08***	0.075***	0.081***	0.086***	0.074***	0.063***	0.025***	0.041***	0.036***
	(0.003)	(0.003)	(0.003)	(0.006)	(0.006)	(0.005)	(0.002)	(0.002)	(0.002)
Controls									
Region	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Occupation	No	Yes	Yes	No	Yes	Yes	No	Yes	Yes
Industry	No	No	Yes	No	No	Yes	No	No	Yes
R^2	0.7772	0.7877	0.7927	0.7328	0.763	0.7827	0.8256	0.8381	0.8422

Note: Standard deviations in parentheses. *** significant at 0.1%, ** significant at 1%, * significant at 5% and . significant at 10%. Occupational and industry codes broadly resemble Standard Occupational Classification (SOC) and North American Industry Classification System (NAICS), respectively.

Table 5: Regression estimates with total compensation

	Finland			*Norway*			*Sweden*		
Variable	*(1)*	*(2)*	*(3)*	*(1)*	*(2)*	*(3)*	*(1)*	*(2)*	*(3)*
Intercept	10.6***	11.04***	11.06***	11.82***	13.41***	13.01***	16.99***	17.07***	17.01***
	(0.138)	(0.145)	(0.145)	(0.221)	(0.225)	(0.225)	(0.093)	(0.101)	(0.101)
Job ladder	-0.1***	-0.112***	-0.112***	-0.047***	-0.105***	-0.087***	-0.246***	-0.243***	-0.243***
	(0.005)	(0.006)	(0.006)	(0.009)	(0.009)	(0.009)	(0.003)	(0.004)	(0.004)
Job ladder sq.	0.002***	0.002***	0.002***	0.001***	0.002***	0.001***	0.003***	0.003***	0.003***
	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Age	0.033***	0.032***	0.031***	0.044***	0.042***	0.041***	0.018***	0.019***	0.019***
	(0.001)	(0.001)	(0.001)	(0.002)	(0.002)	(0.002)	(0.001)	(0.001)	(0.001)
Age sq.	0***	0***	0***	0***	0***	0***	0***	0***	0***
	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Tenure	0***	0***	0.001***	0.002***	0.002***	0.003***	-0.004***	-0.002***	-0.002***
	(0)	(0)	(0)	(0.001)	(0.001)	(0.001)	(0)	(0)	(0)
Tenure sq.	0	0	0	0*	0*	0**	0***	0***	0***
	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Male	0.081**	0.080***	0.086***	0.095***	0.084**	0.072***	0.048**	0.059***	0.056***
	(0.003)	(0.003)	(0.003)	(0.006)	(0.006)	(0.006)	(0.003)	(0.003)	(0.003)
Controls									
Region	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Occupation	No	Yes	Yes	No	Yes	Yes	No	Yes	Yes
Industry	No	No	Yes	No	No	Yes	No	No	Yes
R^2	0.7799	0.7898	0.7946	0.7282	0.7697	0.7912	0.8055	0.8197	0.8224

Note: Standard deviations in parentheses. *** significant at 0.1%, ** significant at 1%, * significant at 5% and . significant at 10%. Occupational and industry codes broadly resemble Standard Occupational Classification (SOC) and North American Industry Classification System (NAICS), respectively.

Table 6: Regression estimates with job performance and fixed wage

Variable	*Finland*	*Norway*	*Sweden*
Intercept	6.138***	9.6543***	12.3966***
	(-0.271)	(0.1884)	(0.0783)
Job level	-0.015	-0.0435***	-0.158***
	(0.01)	(0.0076)	(0.003)
Job level sq.	0.027***	0.0009***	0.0021***
	(0.002)	(0.0001)	(0)
Age	0.027***	0.0344***	0.0217***
	(0.002)	(0.0017)	(0.0008)
Age sq.	-0.0003***	-0.0003***	-0.0002***
	(0)	(0)	(0)
Tenure	-0.003***	-0.0017*	-0.0024***
	(0.001)	(0.0008)	(0.0003)
Tenure sq.	0.	0	0.
	(0)	(0)	(0)
Male	0.056***	0.0394***	0.0323***
	(0.005)	(0.0049)	(0.0021)
High performance	0.006	-0.0356	-0.1653***
	(0.024)	(0.0297)	(0.0096)
Low performance	0.053***		
	(0.0112)		
Controls			
Region	Yes	Yes	Yes
Occupation	Yes	Yes	Yes
Industry	Yes	Yes	Yes
R^2	0.8356	0.8042	0.8506
Observations			
High perf. (abs.)	37	31	258
High perf. (rel.)	0.0068	0.0049	0.0089
Low perf. (abs.)	195		
Low perf. (rel.)	0.0361		
Sample size	5389	6213	28859

Note: Standard deviations in parentheses. *** significant at 0.1%, ** significant at 1%, * significant at 5% and . significant at 10%. Occupational and industry codes broadly resemble Standard Occupational Classification (SOC) and North American Industry Classification System (NAICS), respectively.
High performance: job ladder $\geq$ 60 X age $\leq$ 40
Low performance: job ladder $\leq$ 52 X age $\geq$ 40 X education $\geq$ 5 (Min. master's degree).

Figure 1: Job ladder profiles in the Nordic countries, kernel bandwidth 2