

# KILM 17. Hourly compensation costs

## Introduction

The indicators within KILM 17 are concerned with the levels, trends and structures of employers' hourly compensation costs for the employment of workers in the manufacturing sector. The measure for all employees is shown in table 17a for 32 economies and for production workers separately in table 17c for 34 economies. Both tables include numerous variables: the total compensation cost levels expressed in absolute figures in US dollars and as an index relative to the costs in the United States (on the basis of US = 100), the breakdown of total costs into hourly direct pay and non-wage labour costs (also expressed in US dollars) and the amount of non-wage labour costs as a percentage of total compensation costs. The annual percentage changes in total compensation costs over five-year periods are shown in table 17a for the all employees and in table 17d for the production workers series. Data are not available by sex.

Average hourly compensation cost is a measure intended to represent employers' expenditure on the benefits granted to their employees as compensation for an hour of labour. These benefits accrue to employees, either directly – in the form of total gross earnings – or indirectly – in terms of employers' contributions to compulsory, contractual and private social security schemes, pension plans, casualty or life insurance schemes and benefit plans in respect of their employees. This latter group of benefits is commonly known as “non-wage benefits” or “non-wage labour costs” when referring to employers' expenditure.

Compensation cost is closely related to labour cost, although it does not entirely correspond to the ILO definition of total labour cost contained in the 1966 ILO resolution concerning statistics of labour cost, adopted by

the 11th International Conference of Labour Statisticians (ICLS),<sup>1</sup> in that it does not include all items of labour costs (see box 17a). In particular, the costs of recruitment, employee training, and plant facilities and services, such as cafeterias, medical clinics and welfare services, are not included. It is estimated that the labour costs not included in hourly compensation costs account for around 1 to 2 per cent of total labour costs for those countries for which information is presented. This measure is also closely related to the “compensation of employees” measure used in the system of national accounts,<sup>2</sup> which can be considered a proxy for total labour costs.

## Use of the indicator

Information on hourly compensation costs, like total labour costs, is valuable for many purposes. The level and structure of the cost of employing labour and the way costs change over time can play a central role in every country, not only for wage negotiations but also for defining, implementing and assessing employment, wage and other social and fiscal policies that target the distribution and redistribution of income. At both the national and international levels, labour costs are a crucial factor in the abilities of enterprises and countries to compete. When specific to the manufacturing sector, labour costs serves as an

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1. ILO: Resolution concerning statistics of labour cost, adopted by the 11th International Conference of Labour Statisticians, Geneva, 1966; [http://www.ilo.org/global/What\\_we\\_do/Statistics/standards/resolutions/lang--en/docName--WCMS\\_087500/index.htm](http://www.ilo.org/global/What_we_do/Statistics/standards/resolutions/lang--en/docName--WCMS_087500/index.htm) (see box 17a).

2. United Nations: *System of National Accounts 1993*, prepared under the auspices of the Inter-Secretariat Working Group on National Accounts, Brussels/Luxembourg, New York, Paris, Washington, DC, 1993. Additional information relating to the SNA is available from the United Nations, Statistics Division, New York; <http://unstats.un.org/unsd/sna1993/introduction.asp>.

**Box 17a. Resolution concerning statistics of labour cost, adopted by the 11th International Conference of Labour Statisticians, October 1966 [relevant paragraphs]**

The 11th ICLS (Geneva, 1966) adopted a resolution concerning statistics on labour cost, recommending the following International Standard Classification of Labour Cost:

**I. Direct wages and salaries**

1. Straight-time pay of time-related workers
2. Incentive pay of time-rated workers
3. Earnings of piece-workers (excluding overtime premiums)
4. Premium pay for overtime, late shift and holiday work

**II. Remuneration for time not worked**

1. Annual vacation, other paid leave, including long-service leave
2. Public holidays and other recognized holidays
3. Other time off granted with pay (e.g. birth or death of family members, marriage of employees, functions of titular office, union activities)
4. Severance and termination pay where not regarded as social security expenditure

**III. Bonuses and gratuities**

1. Year-end and seasonal bonuses
2. Profit-sharing bonuses
3. Additional payments in respect of vacation, supplementary to normal vacation pay and other bonuses and gratuities

**IV. Food, drink, fuel and other payments in kind****V. Cost of workers' housing borne by employers**

1. Cost for establishment-owned dwellings
2. Cost for dwellings not establishment-owned (allowances, grants, etc.)
3. Other housing costs

**VI. Employers' social security expenditure**

1. Statutory social security contributions (for schemes covering old age, invalidity and survivors, sickness, maternity, employment injury, unemployment, and family allowances)
2. Collectively agreed, contractual and non-obligatory contributions to private social security schemes and insurances (for schemes covering old age, invalidity and survivors, sickness, maternity, employment injury, unemployment and family allowances)
- 3a. Direct payments to employees in respect of absence from work due to sickness, maternity or employment injury, to compensate for loss of earnings
- 3b. Other direct payments to employees regarded as social security benefits
4. Cost of medical care and health services
5. Severance and termination pay where regarded as social security expenditure

**VII. Cost of vocational training, including fees and other payments for services of outside instructors, training institutions, teaching material, reimbursements of school fees to workers, etc.****VIII. Cost of welfare services**

1. Cost of canteens and other food services
2. Cost of education, cultural, recreational and related facilities and services
3. Grants to credit unions and cost of related services for employees

**IX. Labour cost not elsewhere classified, such as costs of transport of workers to and from work undertaken by employer (including reimbursement of fares, etc.), cost of work clothes, cost of recruitment and other labour costs****X. Taxes regarded as labour cost, such as taxes on employment or payrolls, included on a net basis, i.e. after deduction of allowances or rebates made by the State.**

indicator of competitiveness of manufactured goods in world trade. This is why governments and the social partners, as well as researchers and national and international institutions, are interested in labour cost information that can be compared between countries and industries. Also, the measurement and analysis of non-wage labour costs have become an important issue in debates on labour market flexibility, employment policies, analyses of cost disparities and comparisons of productivity levels among countries.

Not all countries compile statistics on total labour costs as defined in the relevant ILO resolution. This is because special surveys are required, which tend to be costly and burdensome, particularly for employers. Although guidelines are given to ILO constituents with regard to the type of information to be compiled and published, ILO information on average labour costs in manufacturing – as seen in table 5b of the *ILO Yearbook of Labour Statistics* as well as table 15 of the KILM – is derived from various sources. It is expressed in different time units, and information on hours of work – required to calculate hourly labour costs – is not always available from the countries covered. International comparisons are thus hampered by a lack of harmonization in terms of definitions, methodology and measurement units. National definitions of earnings differ considerably, earnings do not include all items of labour compensation and the omitted items of compensation may represent a large proportion of total compensation.<sup>3</sup>

For these reasons, KILM 17 is based on another source of information, namely the estimates of hourly compensation costs for production workers in manufacturing as compiled by the United States Bureau of Labor Statistics (BLS). The BLS series adjusts published earnings data for items of compensation not included in earnings and although these estimates do not entirely

correspond to the ILO definition of total labour costs, they are closely related to it and account for nearly all labour costs in any country presented within the indicator, resulting in the most reliable available series in terms of international comparability. The BLS also computes comparative measures for 22 component manufacturing industries.<sup>4</sup>

Still, when using the information to make comparisons of international competitiveness, it should be borne in mind that differences in hourly compensation costs are only one factor in competitiveness and therefore, when used alone, may be misleading. It is also important to remember that this indicator measures compensation of production workers specific to manufacturing and is significant only in so far as countries strive to compete in the manufacturing sector. However, when used in conjunction with other indicators, such as labour productivity (KILM 18), relative changes can be helpful in assessing trends in competitiveness.

It should also be noted that non-wage compensation costs as a per cent of total compensation costs may vary as a result of the different structures that governments use to finance social insurance programmes that benefit workers. Programmes financed through employer contributions that are based on the level of employment or payroll are considered part of hourly compensation costs. Programmes financed through general taxation are not chargeable to employers, but represent expenditures by the State, and are therefore excluded from hourly compensation costs. The extent to which the State, employers and employees participate to finance wage-related social security schemes varies from one country to another.

Care should also be taken not to interpret hourly compensation costs as the equivalent of the purchasing power of worker incomes, for two reasons. The first relates to the components

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3. P. Capdevielle and M. Sherwood: "Providing comparable international labor statistics", in *Monthly Labor Review* (Washington, DC, BLS), June 2002; <http://www.bls.gov/opub/mlr/2002/06/art1full.pdf>.

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4. BLS: *Hourly Compensation Costs for Production Workers in Manufacturing, 33 Countries or Areas, 22 Manufacturing Industries, 1992-2005*; <http://www.bls.gov/fls/flshcindaics.htm>.

and nature of compensation costs. In addition to the payments made directly to the workers, compensation includes employers' payments to funds for the benefit of workers. Such "non-wage" compensation can include current social security benefits such as family or dependants' allowances, deferred benefits, as in payments to retirement and pension funds, or various types of insurance entitlements, such as unemployment and health benefit funds, which will represent income to workers only under certain conditions. In a few countries, non-wage costs also include some taxes paid by employers – or deductions for subsidies received – for the employment of labour, such as taxes on employment or payroll.

The second reason for differentiating hourly compensation costs from the concept of workers' purchasing power lies in the fact that the prices of goods and services vary greatly among countries, and the commercial exchange rates used here to convert national figures into a single currency do not indicate relative differences in prices. A more meaningful international comparison of the relative purchasing power of workers' income would involve the use of purchasing power parities (PPPs), that is, rates at which the currency of one country must be converted into the currency of another in order to buy an equivalent basket of goods and services. For this reason, the indicators in KILM 16a and b, which measure wages by occupation in PPP, are more suited to examining the purchasing power of workers.

Information on compensation or labour costs is not generally available separately for men and women. Many establishments from which this information is collected do not maintain separate data by sex for non-wage benefits, even when they do so for the earnings portion of compensation costs. In addition, the distribution of male and female workers according to occupation, levels of skill and supervisory responsibilities are often dissimilar within an industry, between establishments and among countries. Therefore, comparisons of compensation cost information between men and women based on an allocation of costs proportional to the respective number of

persons or the amount of earnings could lead to erroneous conclusions. The same remarks apply to the measurement of total labour costs, where it is even more difficult to allocate the cost of certain components, such as welfare services or vocational training, between men and women. With these difficulties in mind, the ILO resolution concerning statistics of labour cost did not recommend the compilation of labour cost statistics according to sex.

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### Definitions and sources

Hourly compensation costs for workers in manufacturing are estimates compiled by the BLS based on national statistics from establishment and labour cost surveys.<sup>5</sup> Earnings statistics are obtained from country-specific surveys of employment, hours and earnings, or from manufacturing surveys or censuses. Total compensation is computed by adjusting each country's average earnings series for items of direct pay not included in earnings and for employers' social security expenditure and labour taxes (i.e. "non-wage benefits"). Where countries measure earnings on the basis of "hours paid for", the figures are also adjusted in order to obtain estimates of earnings based on "hours actually worked".

Adjustment factors are obtained from various sources, such as periodic labour cost surveys (interpolated on the basis of other information for non-survey years), annual tabulations of employers' social security contribution rates, and information on contractual and legislated changes in fringe benefits. The statistics are further adjusted, where necessary, to take account of major differences in workers' coverage, industrial classification systems and changes over time in survey coverage or frequency. Detailed information on survey sources and on some special estimation procedures is available in the

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5. Bureau of Labor Statistics, Division of Foreign Labour Statistics, United States Department of Labor; <http://www.bls.gov/fls/>.

Technical notes associated with the BLS series.<sup>6</sup>

A country's compensation costs are computed in national currency units and converted into US dollars using the average daily as published by either the US Federal Reserve Board or the International Monetary Fund. They do not indicate relative living standards of workers or the purchasing power of their income. Prices of goods and services vary greatly among countries, and exchange rates are not reliable indicators of relative differences in prices.

The hourly compensation measures relate to manufacturing on a North American Industry Classification System (NAICS) basis. NAICS is the common industrial classification used by the United States, Canada, and Mexico. The NAICS definition of manufacturing differs somewhat from the definition of manufacturing used in other countries. In such cases, BLS makes adjustments to ensure comparability across the series.

*Total hourly compensation costs* include (1) hourly direct pay for time worked and time not worked but paid for, in cash and in kind, and (2) non-wage compensation costs, i.e. employers' social insurance expenditure and, in some countries, labour taxes.

*Hourly direct pay* includes all payments made directly to the worker, before any deductions for workers' contributions to social security and pension schemes, life and health insurance premiums, union dues and other obligations, income-tax liabilities, and so on. This definition is the equivalent of the ILO concept of "gross earnings", which consists of (a) pay for time worked, including basic time and piece rates, overtime premiums, shift differentials, other premiums and bonuses paid regularly each pay period, and cost-of-living adjustments, and (b) other direct pay, such as pay for time not worked (vacations, annual holidays and other paid leave for personal or

family reasons, civic duties, and so on, except sick leave), seasonal or irregular bonuses and other special payments, selected social allowances and the cost of payments in kind.

*Non-wage compensation costs* refer to social insurance expenditures and other labour taxes and include (a) employers' expenditure for legally required insurance programmes and contractual and private benefit plans (retirement and disability pensions, health insurance, income guarantee insurance and sick leave, life and accident insurance, occupational injury and illness compensation, unemployment insurance and family allowances) and, for some countries (b) labour taxes – that is, taxes on payrolls or employment or reductions to reflect subsidies – even if they do not finance programmes that benefit workers directly.

*Production workers* (also referred to as manual workers or blue-collar workers) generally include employees engaged in fabrication, assembly and related activities, material handling, warehousing and shipping, maintenance and repair, janitorial and guard services, auxiliary production (such as power plants), and other services closely related to the above activities. Working supervisors are generally included, while apprentices and other trainees are generally excluded.

*All employees* include production workers as well as all others employed full or part time in an establishment during a specified payroll period. Temporary employees are included. Persons are considered employed if they receive pay for any part of the specified pay period. The self-employed, unpaid family workers and workers in private households are excluded.

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### Limitations to comparability

In spite of the various adjustments made to the series in order to ensure a high level of comparability across countries and over time, some differences may still be found in the information presented. Attention should be paid

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6. BLS: *International Comparisons of Hourly Compensation Costs in Manufacturing*; <http://www.bls.gov/news.release/ichcc.toc.htm>.

to the table notes, and the following major causes of disparities should be noted:

- (1) The average earnings series used as a basis for these estimates may be influenced by changes over time in the industrial structure, that is, the growth or decline of establishments, levels of activity and changes in the structure of the workforce employed (changes in the relative proportions of men and women, skilled and unskilled labour, full-time and part-time workers, and so on). All these factors influence the levels of earnings and workers' benefits within a country.
- (2) Hourly compensation costs are partly estimated, and each year the most recent information is subject to revision by the BLS. For example, in 2001 the hourly compensation costs series were revised for the United States from 1997 onwards to incorporate results on non-wage costs from an annual survey of manufacturers. In 2006, data for Mexico were revised back to 1999 to incorporate benchmark data from an industrial census and data for Ireland and Norway were revised back to 2001 to incorporate non-wage compensation costs from the 2004 labour cost surveys.
- (3) The comparative-level figures are averages for all manufacturing industries and are not necessarily representative of all component industries. In some countries, such as the United States and Japan, differentials in hourly compensation cost levels by industry group are quite wide, while other countries, such as Germany and Sweden, have narrower differentials.
- (4) Changes over time in relative compensation cost levels in US dollars are also affected by (a) the differences in underlying national wage and benefit trends measured in national currencies, and (b) frequent and sometimes sharp changes in relative currency exchange rates.

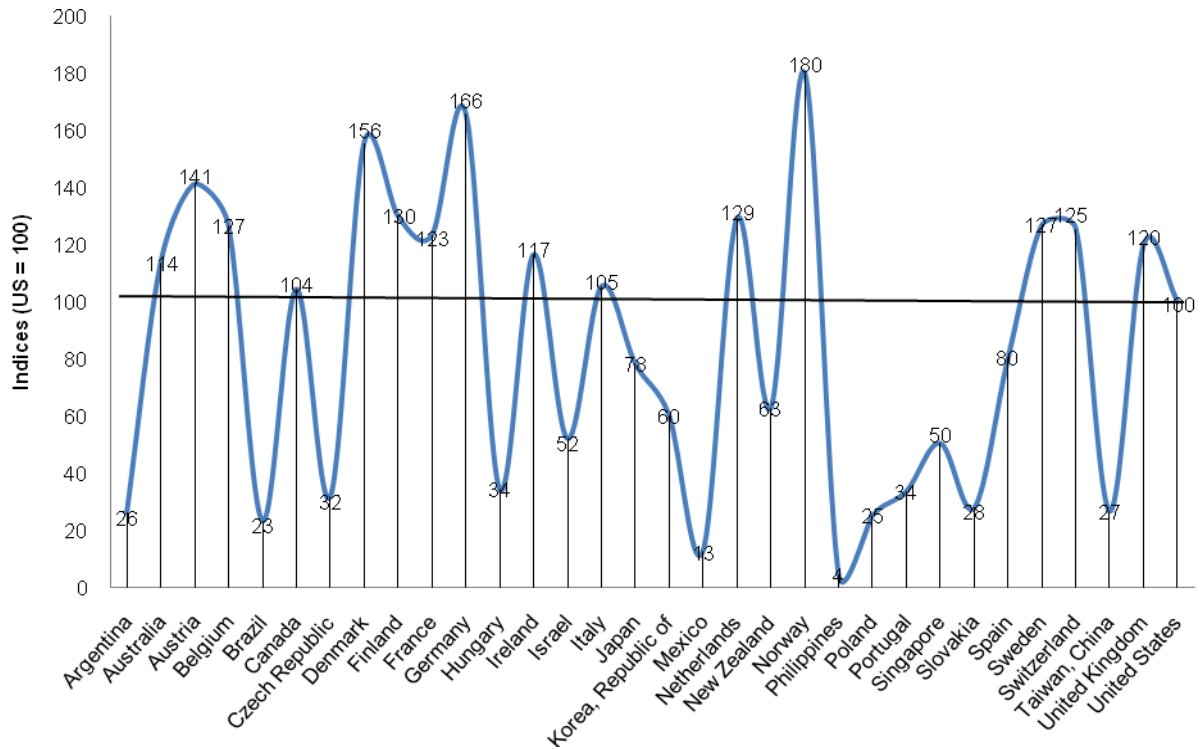
## Trends

Hourly compensation costs for all employees in the manufacturing sector were higher in 15 countries than that of the United States (see figure 17a). Among these were three countries – Germany, Japan and Norway – which also had compensation costs higher than the United States in 2000. These are the countries where costs are consistently the highest among those with available data. The remaining countries, however, overtook the United States' level of compensation costs over the period 2000 to 2007.

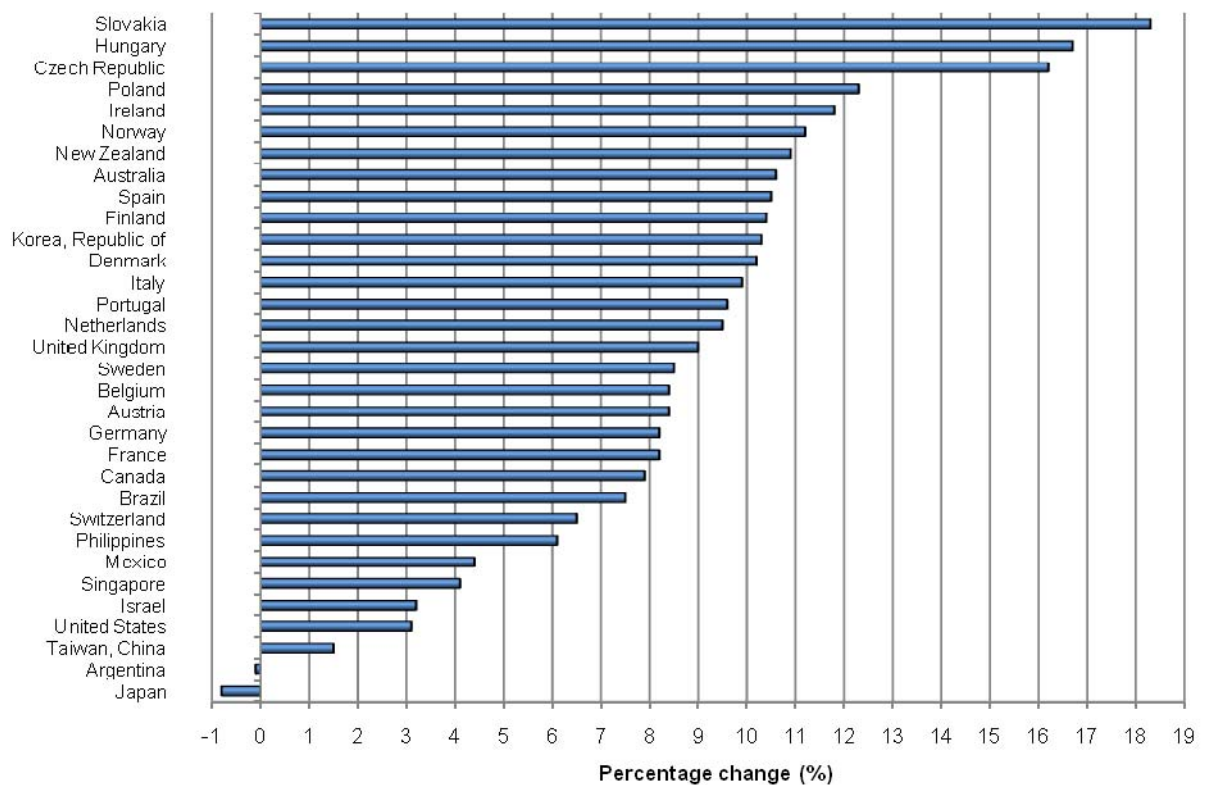
Over the last seven years, the upward trend in compensation costs has been particularly pronounced – 9 per cent annual growth or more – in the majority of developed economies with available data, owing in part to the appreciation of the euro and other currencies relative to the US dollar (see figure 17b). The largest increases were among the newer members of the European Union – Czech Republic, Hungary and Slovakia. These countries experienced large increases in hourly compensation costs in the national currency in addition to a strong appreciation of the national currency against the US dollar. In contrast, Argentina and Japan also felt the consequences of the fluctuation of their currencies, but in these cases the impact led to declining compensation costs for manufacturing employees. These were the only countries to exhibit negative average annual growth during the 2000 to 2007 period.

Figure 17c shows total hourly compensation costs for manufacturing employees in 2007 broken down into its components, hourly direct pay and non-wage compensation costs. Non-wage compensation costs represent a much larger portion of compensation costs in Brazil (32.3 per cent), France (31.9 per cent), Italy (30.4 per cent) and Sweden (33.1 per cent) in comparison to Denmark (12.3 per cent), New Zealand (4.6 per cent), Singapore (14.3 per cent) and Taiwan, China (14.3 per cent), with all other countries

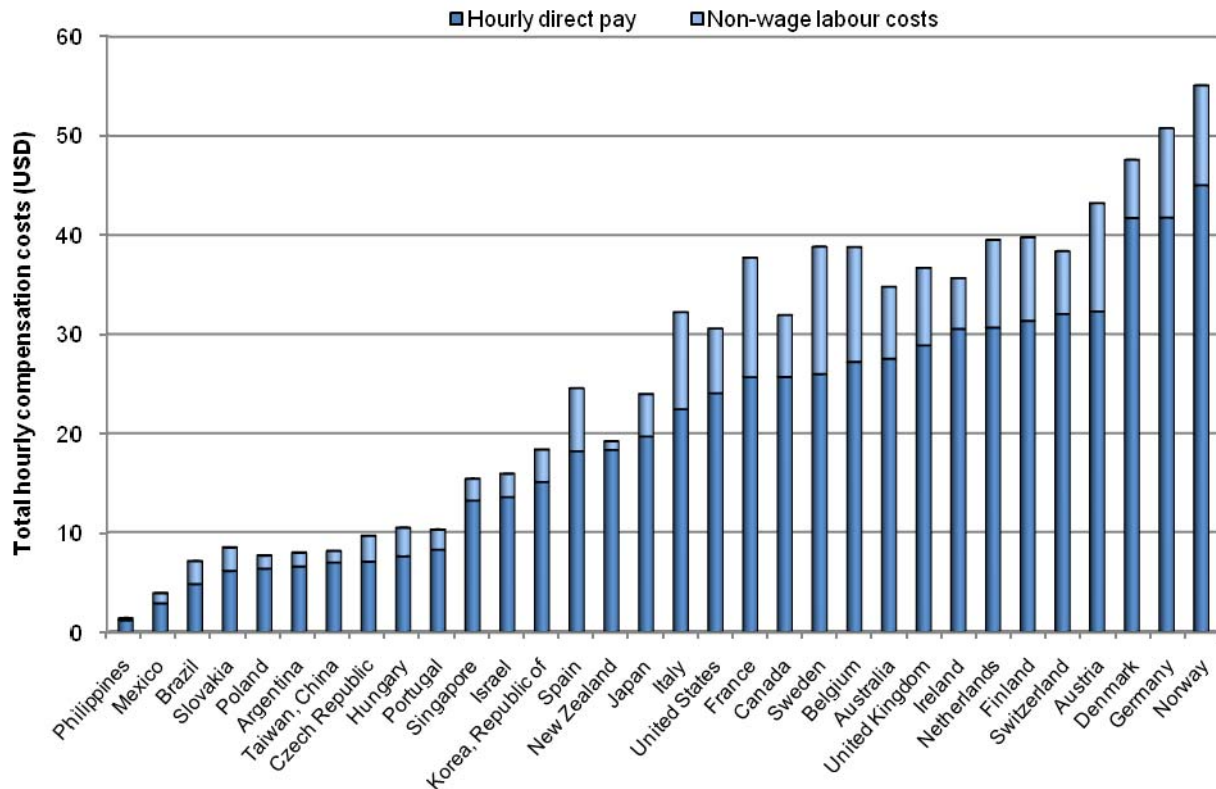
**Figure 17a. Relative hourly compensation costs for all employees in the manufacturing sector (US = 100), 2007**



**Figure 17b. Annual per cent change in hourly compensation costs, 2000-07**



**Figure 17c. Hourly compensation costs of all employees in manufacturing, by hourly direct pay and non-wage costs, 2007**



falling in between. The figure is a good illustration of how inclusion of the different components of compensation costs can greatly influence the relative rankings of countries. For example, manufacturing employees in Ireland had a higher hourly direct pay (US\$30.51) than did workers in Belgium (US\$27.18), France (US\$25.65), Sweden (US\$25.96) and the United Kingdom (US\$28.85); however, when total hourly compensation costs are compared, costs in Ireland are seen to be below the same four countries, a reflection of comparatively lower employer contributions to social insurance programmes by employers in the manufacturing sector in Ireland.

Another interesting story can be told in making use of hourly compensation costs measured for all employees (in KILM table 17a) as a comparison to the costs for production workers only (in KILM table 17c). Hourly compensation costs for production workers in 2007 were lower than those for all

employees in all the economies covered by the two series, generally ranging from 10 per cent to 25 per cent less. According to the BLS who constructed the indicator, “the difference between the two series depends not only upon the higher compensation of non-production workers than production workers (see Definitions and sources), but also on the relative employment levels of the two worker groups; typically the larger the portion of all employees accounted for by production workers, the smaller the gap of the two worker groups in terms of compensation costs”.<sup>7</sup>

In the United States, hourly compensation costs for production workers in manufacturing stood at US\$24.59 in 2007, representing a 20 per cent gap in the value of compensation costs of all employees (US\$30.55). The majority of countries showed a lesser gap in compensation costs between the two groups

7. *ibid*, p. 7.



(the difference was higher only in France, Germany, Hungary, Mexico, Philippines, Poland, Portugal and Singapore). The compensation gap between production workers and all employees in manufacturing was most obvious in Singapore at 46 per cent.

When the two series are broken down by the components, hourly direct pay and non-wage compensation costs, it is obvious that most of the difference between the compensation costs of non-production workers as opposed to production workers comes in the form of hourly direct pay. Visually, this is seen in figure 17d in the larger gap between the two data points (all employees and production workers) representing hourly direct

pay than the non-wage labour costs. There is typically very little difference in the dollar values associated with non-wage labour costs of production workers versus all employees (the largest difference of US\$2.91 occurred in France), whereas the variance in direct pay between the two groups can be significant; in seven countries (Austria, France, Germany, Ireland, Norway, Singapore and United Kingdom), the hourly direct pay of all employees in manufacturing was at least US\$5 greater than that of production workers. In Germany, the difference was as much as US\$11.55 (US\$41.71 and US\$30.16 for all employees and production workers, respectively).

**Figure 17d. Hourly direct pay and non-wage costs for all employees and production workers, 2007**

