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Trends in labour compensation 1970–2007: An analysis of the impacts of income distribution and economic growth in sixteen advanced economies

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Abstract: This thesis takes a new look at the determinants of the growth in labour compensation since the 1970s. A number of studies have shown that, over the past few decades, income has shifted dramatically from labour to capital, not the least in Europe. Kliman (2011), however, who looks at the corporate sector in the US, maintains that the labour share has remained constant relative to property income and stresses that analyses of the relationship between wages and profits ought to take into account both total compensation to employees and the costs associated with depreciation of fixed assets. The present study extends Kliman's analysis to other advanced economies by employing several different measures of income distribution. It also evaluates the relative importance of distribution and economic growth by comparing the magnitudes of change. The results suggest that shifts in distribution – from labour to capital – are only modest when depreciation costs are accounted for and that the rate of economic growth is a far more important factor determining labour compensation.

Keywords: Labour compensation, wages–profits, economic growth

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List of abbreviations

BEA	Bureau of economic analysis
Corp.	Corporate
Corp. sector comp.	Compensation to employees in the corporate sector
CPI	Consumer price index
Depr.	Depreciation of fixed assets (NIPA) or consumption of fixed capital (OECD)
Est.	Estimate
Est. corp. sector comp./NVA	Estimate of the ratio compensation to employees in the corporate sector to net value added in the corporate sector as calculated when valuing depreciation of fixed assets at historical cost
EU KLEMS	EU level analysis of capital (K), labour (L), energy (E), materials (M) and service (S) inputs on a detailed activity level
GDP	Gross domestic product
GVA	Gross value added
LAB	Labour compensation (variable in the EU KLEMS database)
LAB/GVA adj.	The ratio of LAB to GVA with GVA assumed affected by depreciation of fixed assets valued at historical cost
NIPA	National income and product accounts
NVA	Net value added
NVA at current/ historical prices	Net value added as calculated when valuing depreciation of fixed assets at current/historical cost
OECD	Organisation for economic cooperation and development

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1 Introduction

In the wake of the financial crisis of 2007–2008 and with the implementation of austerity in Europe, income inequality has become a burning issue. In the West, grassroots movements such as Occupy Wall Street have taken aim at the large gap between the richest one per cent and the rest of the population; banks and managers have been widely criticised and are often blamed for the economic situation in Europe, the US and elsewhere. This criticism has also been fuelled by a number of reports about growing income inequality in the majority of the advanced economies (see OECD 2008; 2011) and many studies have been made on the widening wage gap between the well-educated and the unskilled (*cf.* Goldin & Katz 2008). In addition to this, some researchers have found that employees' share of income has decreased substantially in a large number of economies. Harrison (2002), for example, notes that "enormous changes" have occurred, evidence she admits is contrary to the established view. As I will argue in this thesis, however, there might be reason to question the methodology of previous research on the "labour share", and by using other methods, different results may be obtained. The topic of this thesis is labour compensation – i.e. total compensation, not differences *within* the group of employees –, its relationship to property income (profit) and to economic growth.

1.1 Research problem and previous research

A "radical" account of the capitalist restructuring

It is widely recognised that in the late 1960s and early 1970s, the advanced economies were shaken by serious economic difficulties and then embarked on a path of far-reaching restructuring that reshaped the old institutional arrangements and transformed the economic structure, both nationally and globally. The 1970s and subsequent decades saw transformations of the labour process, the labour market, the welfare system, the monetary regime and the global division of labour.

In accounts which give emphasis to social conflict in the dynamic of major transformations of society, the French general strike of 1968, the Italian "hot autumn" of 1969, the struggle by the auto-workers in the US, the miners in the UK, etc. were all expressions of mounting working class militancy that upset the existing rules of the game (established in the interwar period and after the Second World War). Of the academic research on this topic, Wright (2002) is a key work on the Italian case: especially in northern Italy factory workers and the left were quickly radicalised in the 1960s; in just a few years they moved from a general acceptance of more or less peaceful wage bargaining to an affirmation of the tactic of spontaneous strikes which then proliferated throughout the 1970s.

This international wave of struggle shows up in economic statistics not only as days lost from industrial action but also as increasing shares of labour compensation. Arpaia, Pérez & Pichelmann (2009) reconfirm previous research when they state that the labour shares in Western Europe reached their maximum in the 1970s. Wage increases grew faster than productivity which ate into the profitability of firms, something which forced employers and legislators to take counter-measures. In Italy, a decisive countermove was the introduction of industrial robots at the Fiat factory in Turin which made many workers redundant. In the US and Britain, Reaganism and Thacherism contained a central element of rolling back the left and not giving in to strikers.

For many theorists, the late 1970s onwards was a period of retreat – not just a return to the balance of power of the pre-1968 period but rather a liquidation of the working class as a legitimate political force within society. The breaking up of large scale factory units, the introduction of new labour market reforms, legal restrictions on trades-unions and the opening up of global competition effectively dissolved working class identity and turned society into an agglomeration of individuals.[1] From here it lies near at hand to argue that in the absence of working class power, living standards became impaired; the employers could now increase their profits at the expense of the wage earners.

A "radical" critique of the idea of stagnating or falling incomes of employees and rising revenues of capital

Rifkin (1995), an economist and writer, claimed that the restructuring and automation of industries lead to mass unemployment, deterioration of working conditions and to falling wages. More recently, Foster and Magdoff (2008) argued that "[s]tagnation in the 1970s led capital to launch an accelerated class war against workers to raise profits by pushing labor costs down" and referred to official US statistics to support their claim.

Andrew Kliman calls in question the conclusion that the above mentioned restructuring ever entailed falling or stagnating incomes of employees in the US (Kliman 2011). Under the heading "Lies, damn lies, and underconsumptionist statistics" he criticises Foster, Magdoff and many other left-leaning researchers for presenting misleading figures on the evolution of compensation to employees, or rather for *not* presenting such figures and instead focusing exclusively on money wages (Kliman 2011:152–160). A much better measure of labour's income, he argues, is total *compensation to employees*, a category that also includes other kinds of employer-provided benefits such as healthcare and pensions, and he points out that these costs have increased substantially in later years. When these are not excluded from the analysis, one finds instead that the incomes of employees have increased over the past 30 or 40 years although, he argues, at a

[1] "[Il s'agit] des modalités de la restructuration en ce qu'elle est contre-révolution : destruction de l'identité ouvrière, réindividualisation du rapport entre le travailleur salarié et le capital. Création d'emplois d'un côté, gel des salaires et flexibilité du marché du travail de l'autre." (Prolétariat et capital : une trop brève idylle ? 2004)

slower rate (ibid.). Furthermore, the employers have *not* increased their profits at the cost of employees, or, which is the same thing, taken a greater share of productivity increases (Kliman 2011:219, note 1). On the contrary, distribution between employees and corporate profit in the US has stayed *almost completely flat* for more than fifty years; compensation is growing more slowly since the end of the post-war boom, almost half as fast, but so are profits (Kliman 2011:124). From this he draws a radical conclusion:

"*The slowdown in the growth of employee compensation is consequently not a distributional phenomenon. It stems from the relative stagnation of capitalist production"* (ibid.).

Is this true outside of the US?

In other words, it is for Kliman the slowdown in economic growth which is the reason why labour compensation is growing slowly, *not* increased exploitation. But do Kliman's findings hold for other advanced economies as well? Arpaia et al. (2009) found something very different in the case of EU 15 for the period 1970–2004: "Not only has the labour share fallen over the past three decades, but it may decline further in the future as a result of capital accumulation and an increasing share of skilled labour in total employment." The conclusions may be different because the share of labour compensation has in fact evolved differently between comparable economies but it may also be due to differences in method. Arpaia et al. (2009) look mainly at the ratio *compensation of employees and of the self-employed to value added*, whereas Kliman looks exclusively at the ratio *compensation of employees in the corporate sector to net value added*. Net value added is a superior measure, he argues, since it excludes consumption of fixed assets, i.e. losses due to depreciation of capital values (GVA/GDP does not). Depreciation is not profit revenue but losses, he maintains, and points to statistics showing that these costs have accelerated since the 1970s – very likely because of heavy investment in computer equipment (Kliman 2011:141). Furthermore, Kliman uses a particular category of net value added that only appears to exist in US statistics: NVA as calculated when deducting *consumption of fixed assets valued at historical cost* (see more under 2.1.1). The results by Harrison (2002) are largely consistent with both: "In the United States, capital and labor shares have remained fairly constant over the last 35 years […]"; "In Europe, the change is enormous: labor's share of aggregate income has declined as much as ten percentage points of GDP". Harrison's approach differs even more from Kliman's, however, when she looks at the compensation of employees' share of GDP. Kliman does not include the value generated by the self-employed in the numerator, only employees of corporations, but he also excludes them in the denominator. In Harrison's ratio *compensation of employees to GDP* the value generated by all of the self-employed is included in the denominator, but the compensation of the latter is excluded from the numerator. (Arpaia et al. 2009 also call attention to the limits of this approach.)

The inspiration to the present study has been curiosity about what the results might be if Kliman's analysis were to be extended to other advanced economies. Kliman deliberately chose not to attempt such en endeavour, mainly because he knew that the necessary data is very scarce (2011:2–3). What will be tried here, however, is to make use what data is available, for the US and for other advanced economies, and to construct proxies for Kliman's categories. I will thus extend Kliman's analysis of distribution between labour compensation and the revenue of capital (property income) and I will also follow Kliman in assessing the impact of economic growth upon the growth in compensation. Furthermore, I will briefly examine the hypothesis that capitalists have increased their profits at the expense of employees because of feeble economic growth.

Contribution of the study

The main contribution of this study is to provide new knowledge on trends in labour compensation in advanced economies by examining the problem from a new angle. The study could also be seen as a contribution within the controversy of the meaning of the capitalist restructuring, structural change or "counter-revolution" from the 1970s onwards.

1.2 Aim and scope

The overall aim of the project is to assess the impacts of distribution between labour compensation and property income and of economic growth on the growth of labour compensation in sixteen advanced economies over the period 1970–2007.[2] To gain insight into this problem, I will try to answer the following questions:

1. What has been the evolution of distribution between labour compensation and property income?
2. What has been the relative importance of changes in distribution and changes in economic growth for the growth in labour compensation?
3. Is there evidence to suggest that falling rates of economic growth have been associated with falling ratios of labour compensation to property income?

The study includes the following countries: Australia, Austria, Belgium, Denmark, Finland, France, Germany, Ireland, Italy, Japan, Republic of Korea ('Korea' henceforth), the Netherlands, Spain, Sweden, United Kingdom (UK) and the United States (US).

In substance, the study is a comparative analysis with a strong quantitative focus. Country-specific characteristics such as institutions, the economic structure or trade will not be addressed. The goal is not to explain all the important dynamics that are at play; instead it is the overall trend that is of interest here. Furthermore, the study is centred on changes in time and not on differences in level between economies.

1.3 Outline of the thesis

The thesis has the following structure: First the methods and data are discussed including their limitations. Then the results are presented, first on the changes in distribution and thereafter on the relationship between changes in income distribution and economic growth as well as the eventual connection between the two. In the last part the main results are discussed, for themselves and in relation to previous research, and conclusions are drawn.

[2] For practical reasons the phrase "and including" will henceforth always be implied (unless stated otherwise) but not explicitly stated when discussing time periods and changes from one year to another. For example the period 1970–2007 should be understood as comprising the whole of 1970, of 2007 and of the time in between. Similarly, a change that is said to have occurred "by" or "in" a particular year refers to "by the end of" the year in question.

2 Methods and data

2.1 Changes in the distribution between labour compensation and property income

2.1.1 Kliman's analysis of income distribution in the US

As stated above, Kliman (2011:123) argues that an analysis of the change in income distribution between labour and capital should not be restricted to looking at, for instance, money wages on the one hand and the remaining gross value added on the other hand. A better measure of labour's income, he argues, is total *compensation to employees*.[3] Conversely, the better measure of capital revenue, or the *property income*, is "net value added minus compensation to employees" (Kliman 2011:99). In national accounts, like the ones reported in the NIPA or OECD statistics, net value added equals gross value added minus depreciation of fixed assets. Moreover, depreciation of fixed assets may be valued at current or historical cost. Kliman (2011:140) argues that losses due to depreciation are not part of anyone's income and so an analysis that does not take depreciation into account – preferably depreciation valued at its actual or *historical* cost – risks producing a distorted picture of income distribution. Especially the long-term trend may be influenced because depreciation has accelerated (Kliman 2011:141–148). Another factor that would distort the picture, according to Kliman, is including for example sole proprietors in the analysis, for in these cases "the majority of 'net income' […] consists of payments to the owners as compensation for their work. It is not *property* income (profit, interest or rental income)" (2011:98).

For the above reasons, Kliman restricted his analysis to the relationship between property income and compensation to employees in the corporate sector, and to the US because he considers data on other economies to be less complete and reliable (Kliman 2011:2–3).

2.1.2 Analysing income distribution in sixteen advanced economies

Despite the obstacles just described, I will attempt an analysis of income distribution extended to sixteen advanced economies for the period 1970–2007.[4] The procedure will be the following:

Firstly, I will divide total *compensation to labour* (LAB) by *gross value added* (GVA), i.e. with the gross domestic product, for each of the economies (see appendix 1). This data is taken from the *EU KLEMS Growth and productivity accounts*.[5] Unlike the category *compensation to employees*, *LAB*

[3] For a detailed description and exact definition of the concept *labour compensation*, see "Sources and definitions" at the OECD statistics website.

[4] Due to data limitations, the analysis of Japan will be restricted to the period 1973–2006.

[5] In EU KLEMS the two variables are labelled "Gross value added at current basic prices (in millions of local currency)" (VA) and "Labour compensation (in millions of local currency)" (LAB) (EU KLEMS database, "Content EU KLEMS database November 2009"). (In this thesis I use the abbreviation GVA when discussing the nominal value added of the total economy.) The data for the US is from the "SIC based" file in "EU KLEMS Database,

includes the work performed by the self-employed. As O'Mahony and Timmer (2009:F380) explain, *LAB* is produced "by assuming that the compensation per hour of [the] self-employed is equal to the compensation per hour of employees […]" In EU KLEMS, it is also assumed that "labour characteristics for self-employed [are the same] as for employees when information on the former is missing." Since the category gross value added is not divided into value produced by employees and value produced from other forms of work, it would not be appropriate to divide GVA by total compensation to employees.

Secondly, I will compute the ratio *compensation to employees in the corporate sector/net value added in the corporate sector* (corp. sector comp./NVA) for all the economies and years that are available in the OECD statistics (see appendix 4).[6]

Thirdly I will produce an estimate of the ratio *corp. sector comp./NVA at historical prices* by multiplying *NVA at current prices* for each economy with *corp. sector comp./NVA at historical prices/corp. sector comp./NVA at current prices* in the US.[7] The estimate (E) for Finland is thus:

$$E = \frac{Finland\ corp.\ sector\ comp.}{Finland\ NVA\ at\ current\ prices \times (US\ NVA\ at\ historical\ prices/US\ \ NVA\ at\ current\ prices)}$$

The estimated ratio *corp. sector comp./NVA at historical prices* thus assumes that the difference between depreciation at current and historical cost is the same in all economies, i.e. the same as in the US (see appendix 5).

Fourthly I will for each economy produce an estimate of *corp. sector comp./NVA at historical prices* for the period 1970–2005[8] by assuming that the relationship between *LAB/GVA* and *corp. sector comp./NVA at historical prices* is the same in all the economies, i.e. the same as in the US (see appendix 3). The abridged name of this ratio is *est. corp. sector comp./NVA*.

Fifthly I will produce an estimate of *LAB/GVA affected by depreciation at historical prices*, LAB/GVA adj. (1970–2005[9]), by multiplying *LAB/GVA* with the quotient

$$\frac{US\ corp.sector\ comp./US\ GVA\ in\ corp.sector - US\ corp.sector\ depr.valued\ at\ historical\ cost}{US\ corp.sector\ comp./US\ GVA\ in\ corp.sector - US\ corp.sector\ depr.valued\ at\ current\ cost}$$

March 2008" that contains yearly data for the period 1970–2005 and where the last five years "are extrapolated forward […] using NAICS" (Ibid.). The data for Belgium (1970–2007) have been taken from the "EU KLEMS Database, November 2011" (Federal Planning Bureau 2011) and for the remaining countries the files used are from the "EU KLEMS Database, November 2009" containing yearly data for the period 1970–2007 (1973–2006 in the case of Japan).

[6] From OECD statistics ("13. Simplified non-financial accounts", sector "SS11_S12: Corporations") I have taken *corp. sector comp.* ("SD1P: Compensation of employees; paid") and *NVA* (*current* cost) data (= "SB1G: Value added; gross" minus "SK1R: Consumption of fixed capital") for the following countries and time periods: Austria (1995–2010); Belgium (1995–2010); Denmark (1995–2010); Finland (1975–2010); France (1978–2010); Germany (1995–2010), Italy (1990–2010); Netherlands (1990–2010) Spain (2000–2010); Sweden (1995–2010); UK (1990–2010); US (1970–2010).

[7] Depreciation of fixed assets in the corporate sector valued at current and historical cost are available in BEA, NIPA, National Income and Product Accounts Tables, 1.14, line 1 & Fixed Assets Accounts Tables, 6.6, line 2 respectively.

[8] The period ends in 2005 since it is limited by the "SIC based" EU KLEMS data series for the US (see note above).

[9] See the previous note.

(see appendix 2). It should be noted that this last procedure does *not* estimate a deduction of depreciation of fixed assets from GVA; it only produces an estimate of how the "GVA" could be said to have been affected *if depreciation at current cost had already been deducted* (which is not the case).

After the above computations I will test how well each of the estimated ratios correlate linearly with the actual *corp. sector comp./NVA* ratios for the periods that overlap, e.g. the linear correlation between *LAB/GVA* (Netherlands 1990–2005) and *corp. sector comp./NVA* (Netherlands 1990–2005). This should give an indication of how well the estimated ratios and LAB/GVA may function as proxies for actual *corp. sector comp./NVA* data. The purpose of this exercise is to try to build a bridge between Kliman's results and those that that may be produced from EU KLEMS data (e.g. in Arpaia et al. 2009). Hopefully this should provide an answer to the question whether the two approaches may be acceptable rough substitutes. We know from the beginning that GVA contains value that NVA does not (depreciation) but not how much this affects the trend. We also presuppose that the *est. corp. sector comp./NVA* ratio does not have this particular weakness but on the other hand it relies on the assumption that the relationship between *LAB/GVA* and *corp. sector comp./NVA* is the same in all the studied economies. The results from the correlation test should give some clue about the mentioned weaknesses. Regardless of the outcome, however, I will in this part of the thesis report the results for all the five mentioned ratios.

The actual study does not stretch further than 2007 but to *contextualise* the end point I will consider the periods 1970–2005 and 1970–2007 in the light of data on *corp. sector comp./NVA* for the periods 2005–2010 and 2007–2010.[10] Developments after 2007 will not be discussed exhaustively for themselves but they will be considered *in the interpretation* of the long term distribution slopes.

2.1.3 Limitations

Apart from the already discussed problem with depreciation of fixed assets and the use of estimated variables a few other limitations and objections need to be addressed.

The concept of compensation to employees is sometimes criticised for including compensation to managers and is therefore not considered a good measure of compensation to regular workers. Two answers can be given to this objection: Firstly, this study does not explicitly study the evolution of compensation to workers only, so it is not a problem as such. Secondly, we are here concerned with changes over time and so for the group of managers to greatly influence the trend the gap between their increases in compensation and all the other employees would need be very substantial, since they make up only a small portion of the workforce (see Kliman 2011:126).

[10] With the exception of Belgium (see Federal Planning Bureau 2011) there is no EU KLEMS data for years later than 2007 at the time of writing.

A much more serious limitation of the distribution analysis is that it does not take into consideration changes in taxes and in social security provided by the state. Although "indirect wages" such as employers' contributions to pensions or healthcare are included in the concept labour compensation (or compensation to employees), contributions provided by the state may play an important role. In principle it should not influence the outcome if taxes and social security have remained completely unchanged over time but that is most certainly not true. An example of how such changes may have an impact on distribution is given by Harrison (2002): "it may be the case that employees are shouldering more of the tax burden but are being compensated with higher wages."

Generally the whole approach of using estimated ratios has serious limitations and so actual data is always preferred. The reliability of the latter also needs to be discussed though. Data from the OECD and the BEA are frequently used by researchers and generally assumed to be trustworthy; still, the very fact that these data sources are regularly updated, including years that go far back in time, means that the values of the data points can never be regarded as entirely accurate. The EU KLEMS database is relatively new and so not as known and utilised, but the project is funded by the European Union, and the database is compiled by a large number of well-known institutes (see appendix A in O'Mahony and Timmer 2009), and has also been used by a large number of distinguished researchers. Nonetheless, complete reliability can never be assumed and I myself found some very suspicious figures for Greece in the March 2008 release.

Lastly, the limitations of the correlation test of the various measures of distribution need to be considered. Co-variation is only tested for the time periods where data series overlap and so even if strong co-variation and high statistical significance may be established for these periods, it is proof of neither co-variation nor significance for *the other* periods. (Half of the economies have corp. sector comp./NVA data for a period shorter than 12 years which is less than half of the period that is studied here.)

2.2 The relationship between income distribution and economic growth and their impact on labour compensation

2.2.1 The relative importance of changes in distribution versus economic growth for the growth in labour compensation

Growth in labour compensation is not only contingent upon distribution but also on growth. Put in another way, what matters is not just how the cake is cut but the size of the cake.

When investigating the relative importance of the two factors I will not make use of consumer price indexes but instead deflated GDP per capita figures. One reason for this is that there are no harmonised CPIs that go as far back as the 1970s, which makes comparisons difficult. Another reason is that the precise level of purchasing power of employees is not the issue here but changes in time as well as comparability between economies. I deem the GDP per capita figures in Maddison (2010) much more suitable for this purpose: it is a well-respected dataset and it contains annual data as far back as 1950 for all the studied economies.

The procedure will be to calculate real labour compensation growth by taking the *labour shares* from the distribution analysis and applying them to the GDP per capita growth figures. In this way, property income will be assumed to be the remaining part of the value. This is not ideal for the measures that are based on NVA (since it includes depreciation) but hopefully it is sufficiently good. I will also produce a number of counter-factual scenarios by fixing labour shares at the first and the last year. The idea behind this is basically to *stretch the figures*, as a way to get an indication of the boundaries of income distribution in relation to economic growth. The main interest, however, is not the extreme cases but the averages of each economy as well as the average figures of all the economies in the same time period.

In this part of the thesis, I will discuss the labour compensation and economic growth of 1970–2005/2007 in relation to the immediately preceding period 1950–1970. It is clear from the start that growth was much faster during the post-war boom;[11] one could argue that this is a historical exception and so on, but *irrespective of the reason for this* there is still cause to look at the extent of the economic slowdown from the early 1970s onward. The goal here is to assess the relative importance of changes in distribution and in *actual* changes in the rate of economic growth.

[11] There are many explanations for why this has been the case, many of which are centred on the concepts of leading and catching up economies. Other works such as Kliman (2011) focus instead on a falling rate of profit and accumulation after the post-war boom as being a result of a rising organic composition of capital, i.e. the relative decline of living labour in relation to total investment (see Marx, *Capital*).

2.2.2 Correspondence between changes in distribution and changes in the rate of economic growth

It should be noted that the part of the thesis that deals with correspondence or correlation between distribution and economic growth is of secondary importance. It is highly unlikely that the two are almost exclusively mutually determined and institutional factors undoubtedly play an important role. Still, there is room to make a simple test of linear correlation which might say something of a possible connection.

The procedure here is to test the correlation between the distribution slopes of the individual economies and the *change in the average rate of growth* from the period 1950–1970 to 1970–2005. The reason for choosing 2005 as the end year to compare the LAB/GVA ratio with *est. corp. sector comp.*/NVA is because the latter series does not continue any further (the US LAB/GVA series ends in 2005). A possible limitation of this analysis is that elements of the two variables in the correlation, e.g. change in LAB/GVA : change in average GDP per capita, are partly determined by one variable: GDP per capita. It may be argued, however, that the risks of producing a completely spurious relationship is limited by that fact that the distribution slopes are not put in relation to year-on-year changes in GDP but to the average growth rates.

3 Results

The results will be presented in the following order:

1) the outcome of the correlation test and the various measures of income distribution applied to the studied economies;
2) the relationship between income distribution and economic growth and their impact on and/or association with labour compensation.

I will not refrain from commenting on the results along the way although the general conclusions will be drawn in the last section of the thesis.

3.1 Changes in the distribution between labour compensation and property income

3.1.1 Results from correlation test

The purpose of this correlation test is to determine whether or not the ratios *LAB/GVA*, *LAB/GVA adj.* and *est. corp. sector comp./NVA* may function as adequate rough substitutes for the ratios *corp. sector comp./NVA at current prices* and *corp. sector comp./est. NVA at historical prices*.

Table 3.1.1a Linear correlations between the ratio "compensation to employees/ net value added valued in current prices (corporate sector)" and the ratios "LAB/GVA", "LAB/GVA adj." and "est. corp. sector comp./NVA" for 12 economies

Economy, period and no. of observations			Coefficient of correlation (r)		
Economy	**Period**	**Number of observations**	**LAB/GVA**	**LAB/GVA adj.**	**est. corp. sector comp./NVA**
Austria	1995–2005	11	0.8637**	0.8241**	0.4488
Belgium	1995–2005	11	0.9481**	0.9653**	0.8328**
Denmark	1995–2005	11	0.9221**	0.9064**	0.7098*
Finland	1975–2005	31	0.9673**	0.9766**	0.9147**
France	1978–2005	28	0.9316**	0.9346**	0.9521**
Germany	1995–2005	11	0.9622**	0.9162**	0.4878*
Italy	1990–2005	16	0.9593**	0.9555**	0.8784**
Netherlands	1990–2005	16	0.7744**	0.6072*	0.1470
Spain	2000–2005	6	-0.5093	-0.5329	-0.4399
Sweden	1995–2005	11	0.9690**	0.9793**	0.9759**
UK	1990–2005	16	0.9209**	0.9220**	0.7033**
US	1970–2005	36	0.3825*	0.2114	0.8438**

Notes: ** p-value < 0.01, * p-value < 0.05

Ratios: LAB/GVA (labour compensation as % of gross value added); LAB/GVA adj. (labour compensation as % of estimated gross value added adjusted to depreciation of fixed assets at historical prices); est. corp. sector comp./NVA (estimated compensation of employees as % of net value added in the corporate sector); corp. sector comp./NVA at current prices (compensation to employees in the corporate sector divided by net value added valued at current prices).

Source: Own calculations based on LAB and GVA from the EU KLEMS database, November 2009; corp. sector comp. and NVA from OECD statistics; depreciation of fixed assets of US corporations from NIPA. See appendix 1–4 for full references and equations.

As can be seen from table 3.1.1a, *corp. sector comp./NVA at current prices* has a strong positive correlation with *LAB/GVA* for 10 of 12 economies ($r > 0.70$, $p < 0.01$). In the case of the US, there is weak but significant positive correlation ($r = 0.3825$, $p < 0.05$). Correlation with *LAB/GVA adj.* is positive, strong and significant for 9 of the economies ($r > 0.70$, $p < 0.01$). In the case of the Netherlands, there is also a positive and significant correlation ($r = 0.6072$, $p < 0.05$). Correlation with *est. corp. sector comp./NVA* is positive, strong and significant for 8 of the economies ($r > 0.70$, $p < 0.05$). In the case of Germany, there is weak but significant positive correlation ($r = 0.4878$, $p < 0.05$). For the following ratios and economies the result was *not* statistically significant ($p > 0.05$): *LAB/GVA* (Spain), *LAB/GVA adj.* (Spain, US), *est. corp. sector comp./NVA* (Austria, Netherlands, Spain).

Table 3.1.1b Linear correlations between the ratio "compensation to employees/ net value added valued in estimated historical prices (corporate sector)" and the ratios "LAB/GVA", "LAB/GVA adj." and "est. corp. sector comp./NVA" for 12 economies

Economy, period and no. of observations			Coefficient of correlation (r)		
Economy	**Period**	**Number of observations**	**LAB/GVA**	**LAB/GVA adj.**	**est. corp. sector comp./NVA**
Austria	1995–2005	11	0.8916**	0.8667**	0.5297
Belgium	1995–2005	11	0.9366**	0.8334**	0.8334**
Denmark	1995–2005	11	0.9309**	0.7431**	0.7431**
Finland	1975–2005	31	0.9493**	0.9686**	0.8956**
France	1978–2005	28	0.8917**	0.8988**	0.9302**
Germany	1995–2005	11	0.9777**	0.9443**	0.5342
Italy	1990–2005	16	0.9542**	0.9517**	0.8732**
Netherlands	1990–2005	16	0.7974**	0.7083**	0.3121
Spain	2000–2005	6	-0.2575	-0.2827	-0.2119
Sweden	1995–2005	11	0.9603**	0.9768**	0.9768**
UK	1990–2005	16	0.8946**	0.9163**	0.9163**
US[1]	1970–2005	36	0.4003*	0.4394**	1.0000**[12]

Notes: ** p-value < 0.01, * p-value < 0.05, [1] US: actual corp. sector comp./NVA at historical prices

Ratios: LAB/GVA (labour compensation as % of gross value added); LAB/GVA adj. (labour compensation as % of estimated gross value added adjusted to depreciation of fixed assets at historical prices); est. corp. sector comp./NVA (estimated compensation of employees as % of net value added in the corporate sector); corp. sector comp./est. NVA at historical prices (compensation to employees in the corporate sector divided by net value added valued at estimated historical prices).

Source: Own calculations based on LAB and GVA from the EU KLEMS database, November 2009; corp. sector comp. and NVA from OECD statistics; GVA adj. calculated using depreciation of fixed assets from NIPA. See appendix 1–5 for full references and equations.

[12] As expected, there is perfect linear correlation with est. corp. sector comp./NVA in the US since the latter ratio was constructed from the relationship between LAB/GVA and actual data on compensation to employees divided by NVA valued at historical cost.

Table 3.1.1b indicates that *corp. sector comp./est. NVA at historical prices* has a strong positive correlation with *LAB/GVA* for 10 of 12 economies ($r > 0.70$, $p < 0.01$). In the case of the US, there is weak but significant positive correlation ($r = 0.4003$, $p < 0.05$). Correlation with *LAB/GVA adj.* is positive, strong and significant for 10 of the economies ($r > 0.70$, $p < 0.01$). In the case of the US, there is weak but significant positive correlation ($r = 0.4394$, $p < 0.01$). Correlation with *est. corp. sector comp./NVA* is positive, strong and significant for 8 of the economies ($r > 0.70$, $p < 0.01$). In the case of Germany, there is weak but significant positive correlation ($r = 0.4878$, $p < 0.05$). For the following ratios and economies the result was *not* statistically significant ($p > 0.05$): *LAB/GVA* (Spain), *LAB/GVA adj.* (Spain), *est. corp. sector comp./NVA* (Austria, Germany, Netherlands, Spain).

Three important results came out of the correlation test:

1) In the case of Spain, none of the ratios in which EU KLEMS data was used is arguably an adequate substitute for *corp. sector comp./NVA* data (i.e. on the basis of the data used in this thesis).
2) The ratio *est. corp. sector comp./NVA* could in many cases be adequate as a rough substitute for actual *corp. sector comp./NVA* but in other cases not.
3) Arguably, the two ratios *LAB/GVA* and *LAB/GVA adj.* are both quite adequate as rough substitutes for *corp. sector comp./NVA* data in most cases.

It is good to keep in mind, however, that this has been a test of primarily short-term co-variation. Half of the series start in 1995 or later and only three go back as far as to the 1970s. In the absence of longer time series on actual *corp. sector comp./NVA*, it cannot be excluded that the use of a *LAB/GVA* measure together with *est. corp. sector comp./NVA* may be a better indicator than either one of them alone, despite the rather weak performance of the latter in the test above.

I encourage the reader to have a critical eye when considering the various measures and to remember that they rest on a long series of assumptions.

3.1.2 Australia

In the analysis of income distribution in Australia, three measures are available: *LAB/GVA*; *LAB/GVA adj.* and *est. corp. sector comp./NVA*. The first contains data for the years 1970–2007 and the last two for 1970–2005.

Distribution between labour compensation and property income in Australia, 1970–2007 (% of 2005 shares, annual figures)

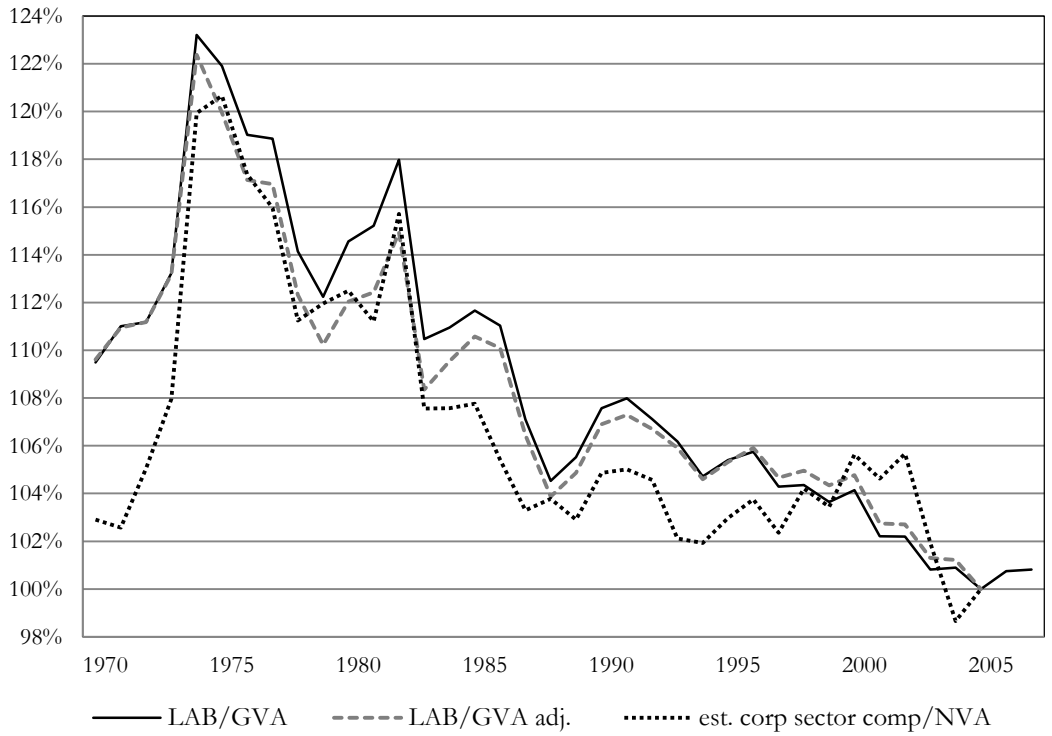

Figure 3.1.2 Distribution between labour compensation and property income in Australia, 1970–2007. Three ratios: LAB/GVA (labour compensation as % of gross value added); LAB/GVA adj. (labour compensation as % of estimated gross value added adjusted to depreciation of fixed assets at historical prices); est. corp. sector comp./NVA (estimated compensation of employees as % of net value added in the corporate sector).

Source: Own calculations based on LAB and GVA from the EU KLEMS database, November 2009; corp. sector comp. and NVA from OECD statistics; depreciation of fixed assets of US corporations from NIPA. See appendix 1–3 for full references and equations.

Figure 3.1.2 illustrates the changes in distribution relative to the shares in 2005, appendices 1–3 display the annual shares as percentages, and appendix 6 summarises the long-term percentage change for the three ratios. As can be seen in figure 3.1.2 and appendices 1–3, the two ratios *LAB/GVA* and *LAB/GVA adj.* were at the same level in 1970; according to both of these measures, labour's share of income then fell by about 8.7 per cent until 2005 (see appendix 6). According to the *LAB/GVA* measure labour then recovered by approximately 0.8 per cent over the next two years. The measure *est. corp. sector comp./NVA* shows a modest shift by approximately 2.8 per cent in favour of property. All three measures indicate a rapid increase in labour's share of income in the early 1970s and then a slow but steady decline over the following thirty years.

3.1.3 Austria

In the analysis of income distribution in Austria, five measures are available: *LAB/GVA; LAB/GVA adj.; est. corp. sector comp./NVA; corp. sector comp./NVA at current prices and corp. sector comp./est. NVA at historical prices*. The first contains data for the years 1970–2007, the second and third 1970–2005, the fourth 1995–2007 and the fifth 1995–2007.

Distribution between labour compensation and property income in Austria, 1970–2007 (% of 2005 shares, annual figures)

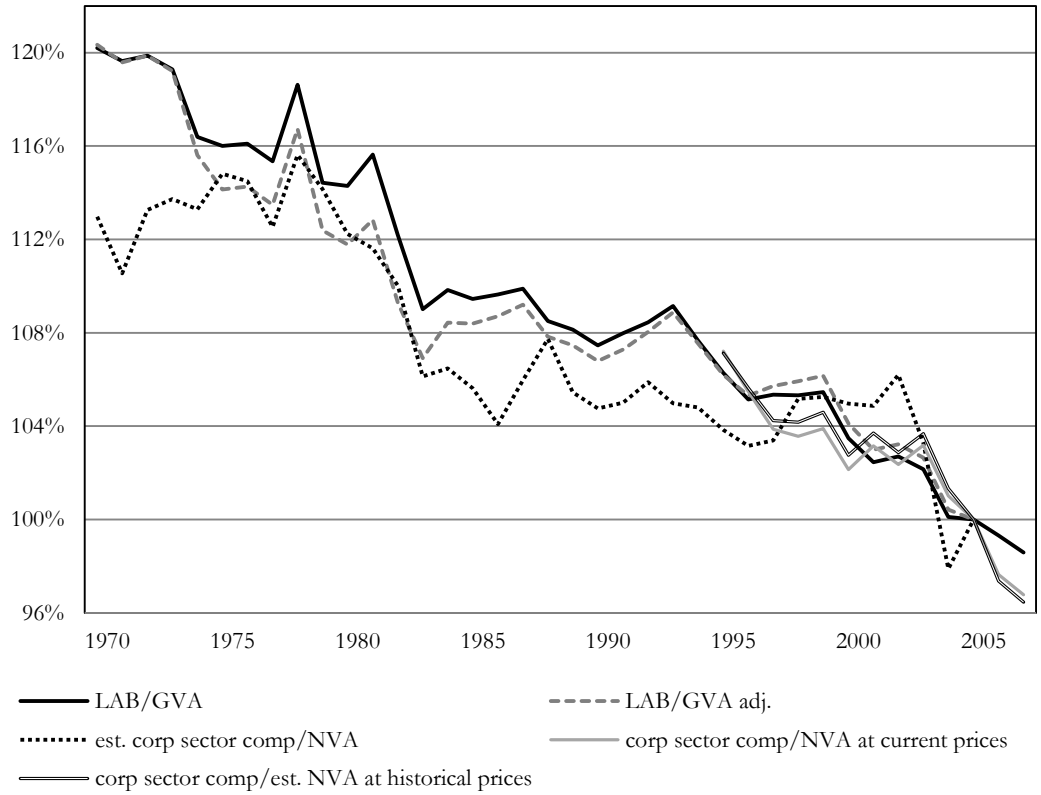

Figure 3.1.3 Distribution between labour compensation and property income in Austria, 1970–2007. Five ratios: LAB/GVA (labour compensation as % of gross value added); LAB/GVA adj. (labour compensation as % of estimated gross value added adjusted to depreciation of fixed assets at historical prices); est. corp. sector comp./NVA (estimated compensation of employees as % of net value added in the corporate sector); corp. sector comp./NVA at current prices (compensation to employees in the corporate sector divided by net value added valued at current prices); corp. sector comp./est. NVA at historical prices (compensation to employees in the corporate sector divided by net value added valued at estimated historical prices).

Source: Own calculations based on LAB and GVA from the EU KLEMS database, November 2009; corp. sector comp. and NVA from OECD statistics; depreciation of fixed assets of US corporations from NIPA. See appendix 1–5 for full references and equations.

Figure 3.1.3 shows an almost uninterrupted fall in labour's share of incomes since the start of the period. Only the *est. corp. sector comp./NVA* rate indicates a rising labour share up to 1978. *Corp. sector comp./NVA at current prices* and *corp. sector comp./est. NVA at historical prices* indicate a fall of 9.7 and 9.9 per cent respectively from 1995 to 2007 (see appendix 6).[13] The *LAB/GVA* measure shows a fall of 17.9 per cent in labour's share 1970–2007. Its 2007 value is at 99.6 per cent of that in 2005, which is 2–3 percentage points above the *corp. sector comp./NVA* measures. Over the period 1970–2005, the percentage change of *LAB/GVA*, *LAB/GVA adj.* and *est. corp. sector comp./NVA* was -16.9, -16.9 and -11.5 respectively.

3.1.4 Belgium

In the analysis of income distribution in Belgium the same measures are available as for Austria and for the same periods.

Distribution between labour compensation and property income in Belgium, 1970–2007 (% of 2005 shares, annual figures)

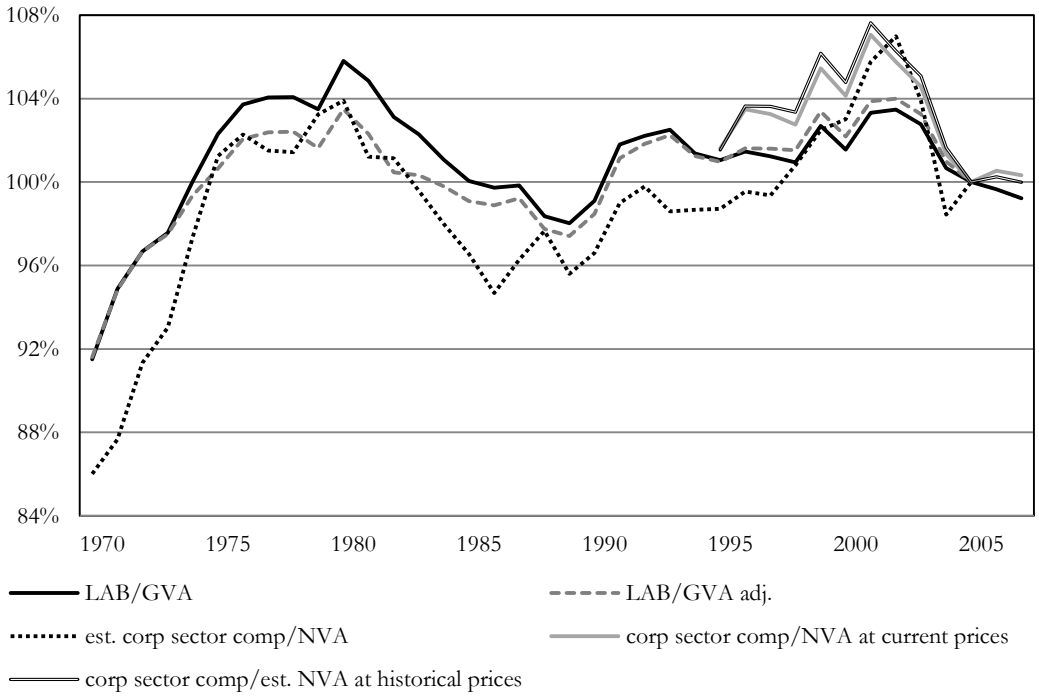

Figure 3.1.4 Distribution between labour compensation and property income in Belgium, 1970–2007. Five ratios: LAB/GVA (labour compensation as % of gross value added); LAB/GVA adj. (labour compensation as % of estimated gross value added adjusted to depreciation of fixed assets at historical prices); est. corp. sector comp./NVA (estimated compensation of employees as % of net value added in the corporate sector); corp. sector comp./NVA at current prices (compensation to employees in the corporate sector divided by net value added valued at current prices); corp. sector comp./est. NVA at historical prices (compensation to employees in the corporate sector divided by net value added valued at estimated historical prices).

Source: Own calculations based on LAB and GVA from the EU KLEMS database, November 2009; corp. sector comp. and NVA from OECD statistics; depreciation of fixed assets of US corporations from NIPA. See appendix 1–5 for full references and equations.

[13] *Percentages* always refer to the actual figures from the appendices; *percentage points* are used when discussing changes in relation to the 2005 shares.

As can be seen in figure 3.1.4 and appendices 1–5, the different measures of income distribution indicate a rise in labour's share of income from 1970 to 1980, a fall from 1980 to 1989, a rise again from 1989 to 2001–2002, and then a fall once more until the end of the period. As can be seen in appendix 6, the *LAB/GVA* and *LAB/GVA adj.* measures show an increase of 9.3 and 9.2 per cent in labour's share of income 1970–2005 while the *est. corp. sector comp./NVA* measure indicates an even greater increase: 16.3 per cent. The two measures of compensation/net value added in the corporate sector indicate a peak of labour's share of income in 2001, after which it declined by about 7 per cent until 2005 and then remained stable over the next two years.

3.1.5 Denmark

In the analysis of income distribution in Denmark the same measures are available as for the two previous economies, and for the same periods.

Distribution between labour compensation and property income in Denmark, 1970–2007 (% of 2005 shares, annual figures)

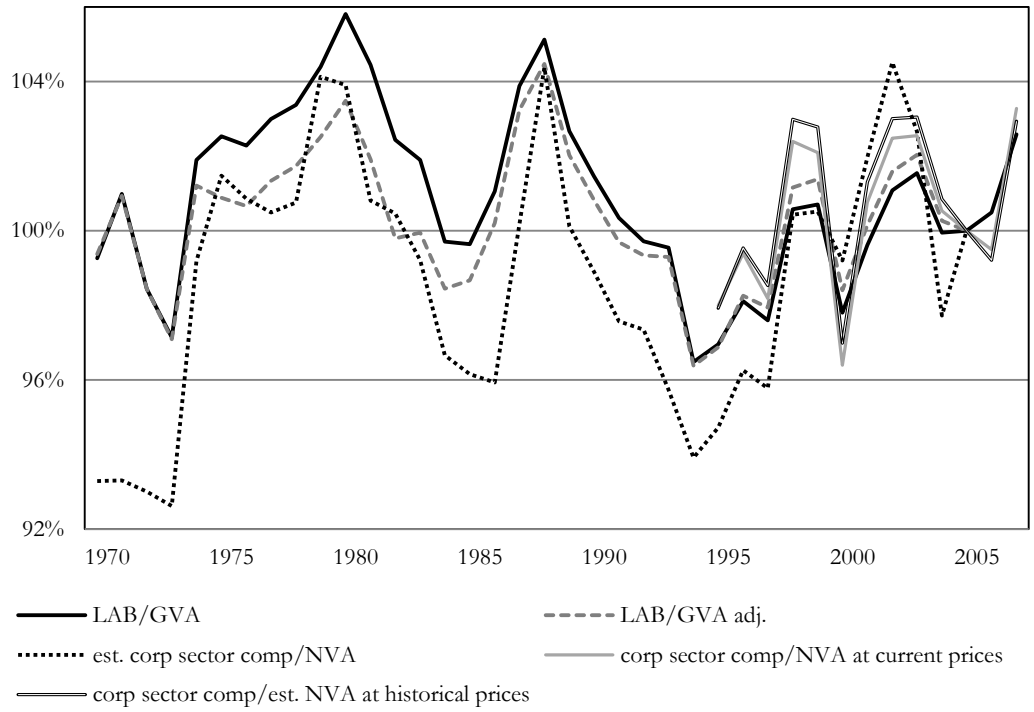

Figure 3.1.5 Distribution between labour compensation and property income in Denmark, 1970–2007. Five ratios: LAB/GVA (labour compensation as % of gross value added); LAB/GVA adj. (labour compensation as % of estimated gross value added adjusted to depreciation of fixed assets at historical prices); est. corp. sector comp./NVA (estimated compensation of employees as % of net value added in the corporate sector); corp. sector comp./NVA at current prices (compensation to employees in the corporate sector divided by net value added valued at current prices); corp. sector comp./est. NVA at historical prices (compensation to employees in the corporate sector divided by net value added valued at estimated historical prices).

Source: Own calculations based on LAB and GVA from the EU KLEMS database, November 2009; corp. sector comp. and NVA from OECD statistics; depreciation of fixed assets of US corporations from NIPA. See appendix 1–5 for full references and equations.

As can be seen in figure 3.1.5 and appendices 1–5, *LAB/GVA* and *LAB/GVA adj.* indicate that labour's and property's shares of income have been stable over the period 1970–2005 (+0.5 per cent); appendix 6 indicates variations of about 3 percentage points. Thereafter the former measure indicates a shift in the favour of labour by 3.3 per cent over the next two years. The measure *est. corp. sector comp./NVA* indicates a rise of 7.2 per cent in labour's share of incomes 1970–2005. *Corp. sector comp./NVA at current prices* and *corp. sector comp./est. NVA at historical prices* largely follow the trend of LAB/GVA although at a slightly higher level for most of the period including at the end point: 3 percentage points above the 2005 shares.

3.1.6 Finland

In the analysis of income distribution in Finland, five measures are available: *LAB/GVA*; *LAB/GVA adj.*; *est. corp. sector comp./NVA*; *corp. sector comp./NVA at current prices* and *corp. sector comp./est. NVA at historical prices*. The first contains data for the years 1970–2007, the second and third 1970–2005, the fourth 1975–2007 and the fifth 1975–2007.

Distribution between labour compensation and property income in Finland, 1970–2007 (% of 2005 shares, annual figures)

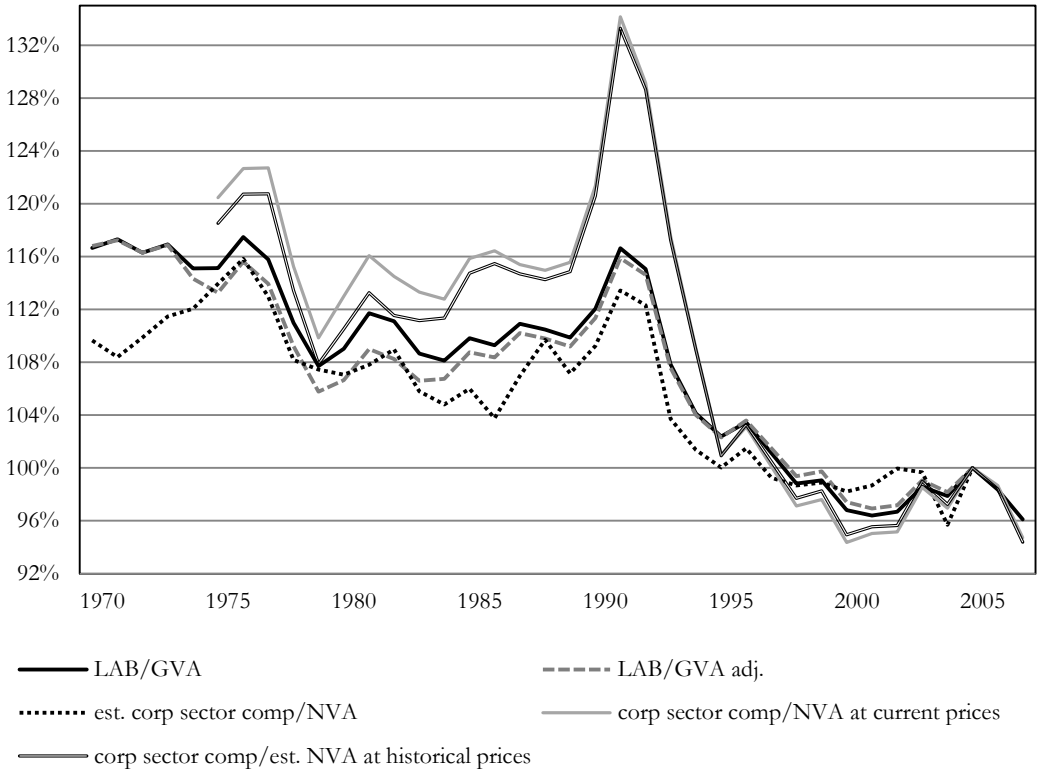

Figure 3.1.6 Distribution between labour compensation and property income in Finland, 1970–2007. Five ratios: LAB/GVA (labour compensation as % of gross value added); LAB/GVA adj. (labour compensation as % of estimated gross value added adjusted to depreciation of fixed assets at historical prices); est. corp. sector comp./NVA (estimated compensation of employees as % of net value added in the corporate sector); corp. sector comp./NVA at current prices (compensation to employees in the corporate sector divided by net value added valued at current prices); corp. sector comp./est. NVA at historical prices (compensation to employees in the corporate sector divided by net value added valued at estimated historical prices).

Source: Own calculations based on LAB and GVA from the EU KLEMS database, November 2009; corp. sector comp. and NVA from OECD statistics; depreciation of fixed assets of US corporations from NIPA. See appendix 1–5 for full references and equations.

As can be seen in appendix 6, *LAB/GVA* and *LAB/GVA adj.* fell by about 14.3 per cent over the period 1970–2005. Over the same period, *est. corp. sector comp./NVA* fell slightly less: 8.8 per cent. The two measures of compensation/net value added in the corporate sector show a decline in labour's share of about 19 per cent 1975–2005 and then further fall by an additional 5.5 per cent. Also LAB/GVA falls during 2005–2007 by 3.9 per cent. What can also be seen is a strong increase in labour's share 1989–1991 followed by a sharp fall until 1995/1996. Here, the two measures of compensation/net value added in the corporate sector show a much greater volatility than the other three measures.

3.1.7 France

In the analysis of income distribution in France, the same measures are available as for Finland, except that *corp. sector comp./NVA at current prices* and *corp. sector comp./est. NVA at historical prices* contains data for the period 1978–2007.

Distribution between labour compensation and property income in France, 1970–2007 (% of 2005 shares, annual figures)

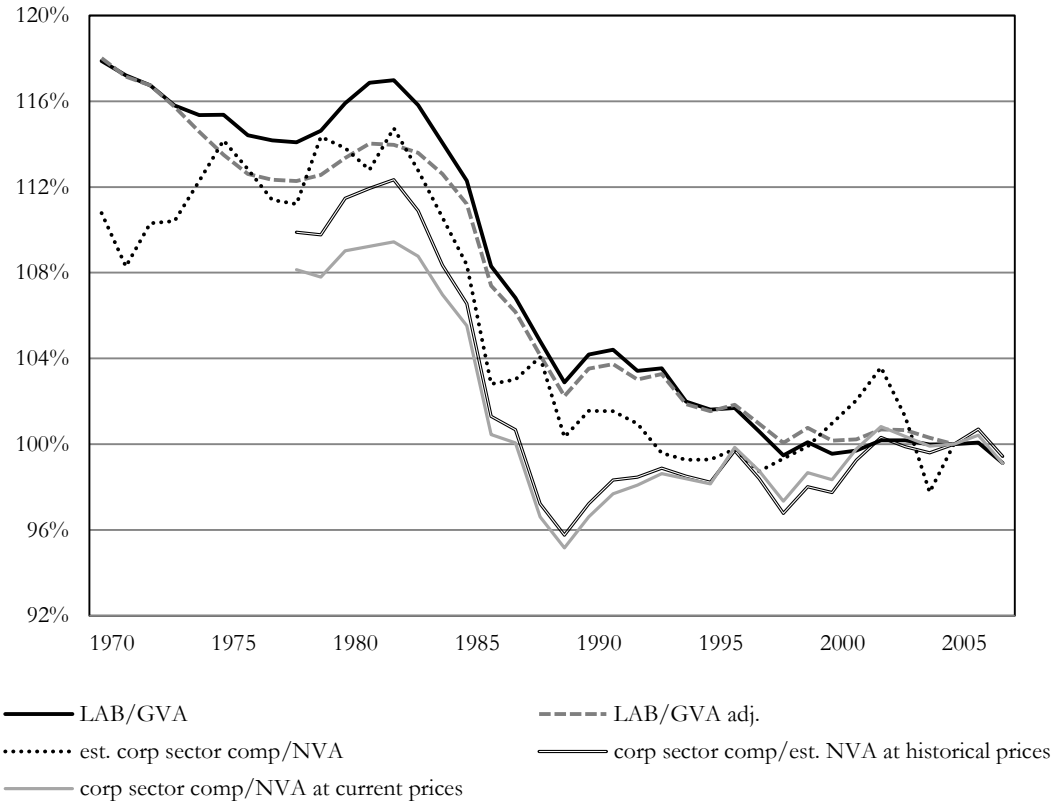

Figure 3.1.7 Distribution between labour compensation and property income in France, 1970–2007. Five ratios: LAB/GVA (labour compensation as % of gross value added); LAB/GVA adj. (labour compensation as % of estimated gross value added adjusted to depreciation of fixed assets at historical prices); est. corp. sector comp./NVA (estimated compensation of employees as % of net value added in the corporate sector); corp. sector comp./NVA at current prices (compensation to employees in the corporate sector divided by net value added valued at current prices); corp. sector comp./est. NVA at historical prices (compensation to employees in the corporate sector divided by net value added valued at estimated historical prices).

Source: Own calculations based on LAB and GVA from the EU KLEMS database, November 2009; corp. sector comp. and NVA from OECD statistics; depreciation of fixed assets of US corporations from NIPA. See appendix 1–5 for full references and equations.

As can be seen in appendix 6, *LAB/GVA* and *LAB/GVA adj.* indicate a fall in labour's share of approximately 15.2 per cent 1970–2005. Over the same period, *est. corp. sector comp./NVA* fell by 11 per cent. Over the period 1978–2007, c*orp. sector comp./NVA at current prices* and *corp. sector comp./est. NVA at historical prices* indicate a fall of 9.5 and 8.4 per cent respectively. As can be seen in figure 3.1.7, all five measures indicate a sharp fall throughout the 1980s; thereafter, *LAB/GVA* and *LAB/GVA adj.* indicate a further fall during the 1990s while the two measures of compensation/net value added in the corporate sector indicate a slow but steady recovery and *est. corp. sector comp./NVA* a movement close to the level of 2005. The three measures that include the years 2006 and 2007 indicate a fall in labour's share of slightly below one per cent 2005–2007.

3.1.8 Germany

In the analysis of income distribution in Germany, the same measures are available as for Austria, Belgium and Denmark, and for the same periods.

Distribution between labour compensation and property income in Germany, 1970–2007 (% of 2005 shares, annual figures)

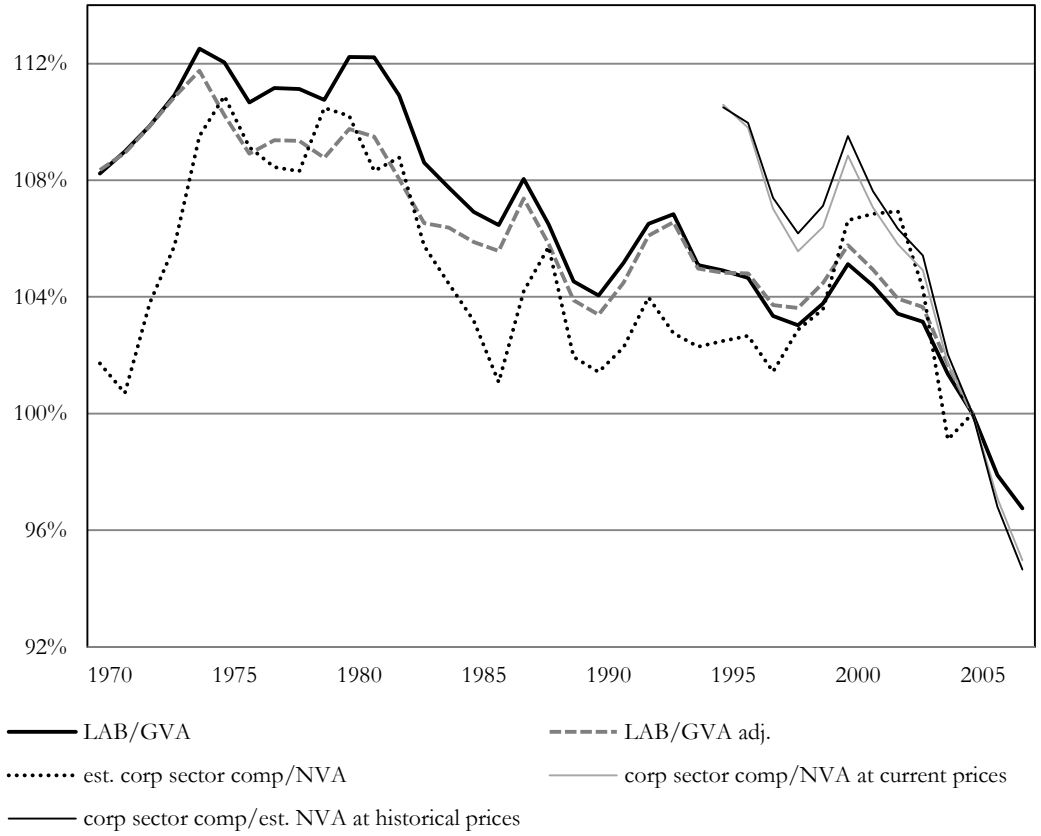

Figure 3.1.8 Distribution between labour compensation and property income in Germany, 1970–2007. Five ratios: LAB/GVA (labour compensation as % of gross value added); LAB/GVA adj. (labour compensation as % of estimated gross value added adjusted to depreciation of fixed assets at historical prices); est. corp. sector comp./NVA (estimated compensation of employees as % of net value added in the corporate sector); corp. sector comp./NVA at current prices (compensation to employees in the corporate sector divided by net value added valued at current prices); corp. sector comp./est. NVA at historical prices (compensation to employees in the corporate sector divided by net value added valued at estimated historical prices).

Source: Own calculations based on LAB and GVA from the EU KLEMS database, November 2009; corp. sector comp. and NVA from OECD statistics; depreciation of fixed assets of US corporations from NIPA. See appendix 1–5 for full references and equations.

As can be seen from *LAB/GVA* and *LAB/GVA adj.* in appendix 6, labour's share of income fell by approximately 7.7 per cent over the period 1970–2005 and then LAB/GVA indicate a fall by an additional 3.2 per cent over the next two years. Figure 3.1.8 indicates that at 101.7 per cent, *est. corp. sector comp./NVA* is close to the 2005 shares at the start of the period (a fall by 1.7 per cent in 1970–2005 according to appendix 6) and then rises by 9 percentage points up to the end of the 1970s; thereafter labour's share fell back to the level of 1970 during the first half of the 1980s. The two measures of compensation/net value added in the corporate sector indicate a fall of about 14.2 per cent 1995–2007. The three measures *LAB/GVA*, *LAB/GVA adj.* and *est. corp. sector comp./NVA* show a fall of 7.6, 7.7 and 1.7 per cent respectively in 1970–2005. All five measures indicate a high point at about 2000 after which labour's share of income fell continuously until 2007.

3.1.9 Ireland

In the analysis of income distribution of Ireland the measures *LAB/GVA*, *LAB/GVA adj.* and *est. corp. sector comp./NVA* are available, the first for the period 1970–2007 and the last two for the period 1970–2005.

Distribution between labour compensation and property income in Ireland, 1970–2007 (% of 2005 shares, annual figures)

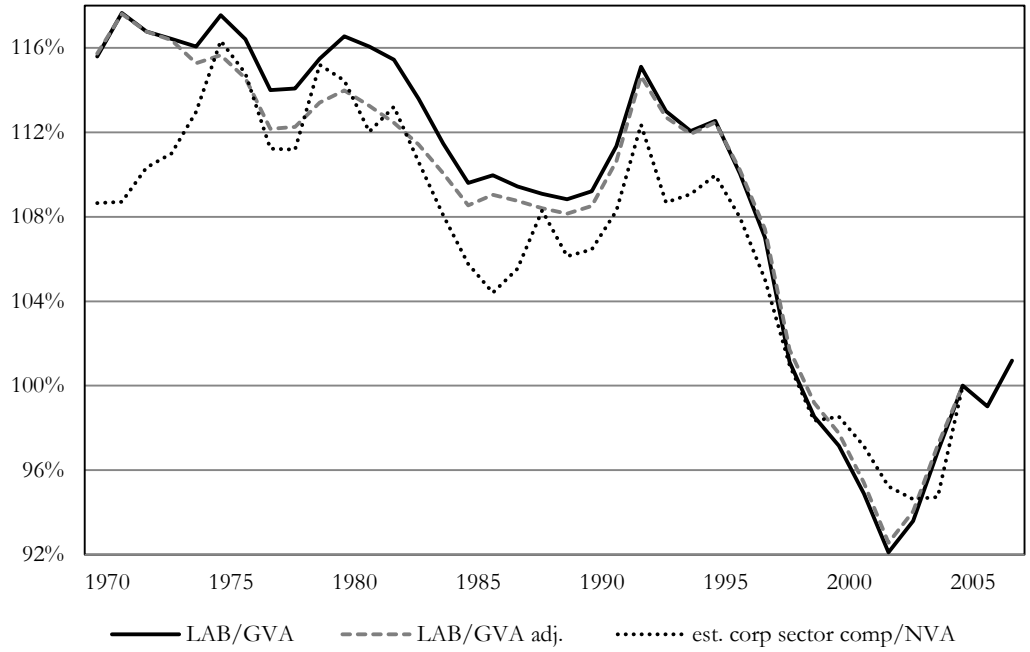

Figure 3.1.9 Distribution between labour compensation and property income in Ireland, 1970–2007. Three ratios: LAB/GVA (labour compensation as % of gross value added); LAB/GVA adj. (labour compensation as % of estimated gross value added adjusted to depreciation of fixed assets at historical prices); est. corp. sector comp./NVA (estimated compensation of employees as % of net value added in the corporate sector).

Source: Own calculations based on LAB and GVA from the EU KLEMS database, November 2009; corp. sector comp. and NVA from OECD statistics; depreciation of fixed assets of US corporations from NIPA. See appendix 1–3 for full references and equations.

As can be seen in appendix 6, *LAB/GVA* and *LAB/GVA adj.* fell by about 13.5 per cent 1970–2005 and e*st. corp. sector comp./NVA* by about 8 per cent. As can be seen in figure 3.1.9, all three measures indicate a high point in 1992 after which labour's share fell steeply until the early 2000s and then started to recover.

3.1.10 Italy

In the analysis of income distribution in Italy, the same measures are available as for Austria, Belgium and Denmark, and for the same periods.

Distribution between labour compensation and property income in Italy, 1970–2007 (% of 2005 shares, annual figures)

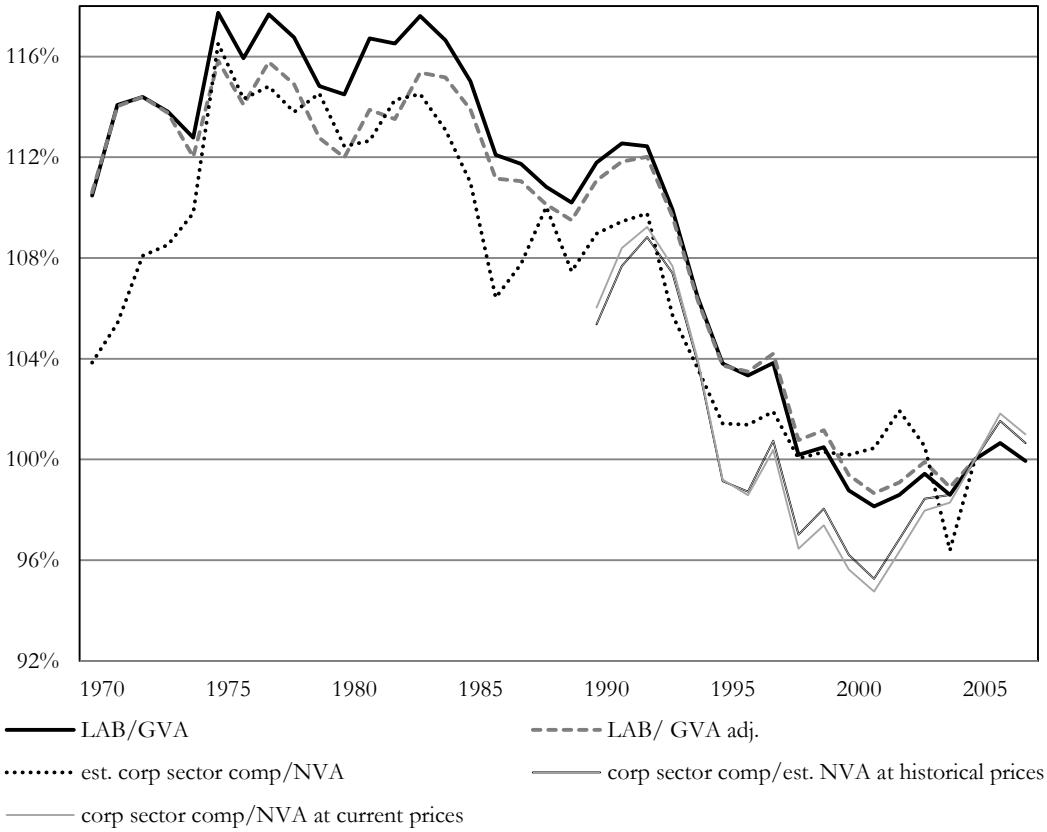

Figure 3.1.10 Distribution between labour compensation and property income in Italy, 1970–2007. Five ratios: LAB/GVA (labour compensation as % of gross value added); LAB/GVA adj. (labour compensation as % of estimated gross value added adjusted to depreciation of fixed assets at historical prices); est. corp. sector comp./NVA (estimated compensation of employees as % of net value added in the corporate sector); corp. sector comp./NVA at current prices (compensation to employees in the corporate sector divided by net value added valued at current prices); corp. sector comp./est. NVA at historical prices (compensation to employees in the corporate sector divided by net value added valued at estimated historical prices).

Source: Own calculations based on LAB and GVA from the EU KLEMS database, November 2009; corp. sector comp. and NVA from OECD statistics; depreciation of fixed assets of US corporations from NIPA. See appendix 1–5 for full references and equations.

As can be seen in figure 3.1.10, labour's share of income increased during the first half of the 1970s, remained stable until 1983 and then fell continuously until 2005. Appendices 1–3 and 6 show that according to *LAB/GVA*, *LAB/GVA adj.* and *est. corp. sector comp./NVA*, labour's share declined by between 14.38 and 16.17 per cent 1983–2004. Over the period 1970–2005, the decline was about 9.5 per cent according to the two LAB/GVA measures and 3.7 per cent according to *est. corp. sector comp./NVA*. Between 2005 and 2007 the shares were stable according to LAB/GVA. *Corp. sector comp./NVA at current prices* and *corp. sector comp./est. NVA at historical prices* indicate a fall by 4.8 and 4.5 per cent respectively over the period 1990–2007.

3.1.11 Japan

In the analysis of income distribution in Japan, the measures *LAB/GVA*, *LAB/GVA adj.* and *est. corp. sector comp./NVA* are available, the first for the period 1973–2006 and the last two for the period 1973–2005.

Distribution between labour compensation and property income in Japan, 1973–2006 (% of 2005 shares, annual figures)

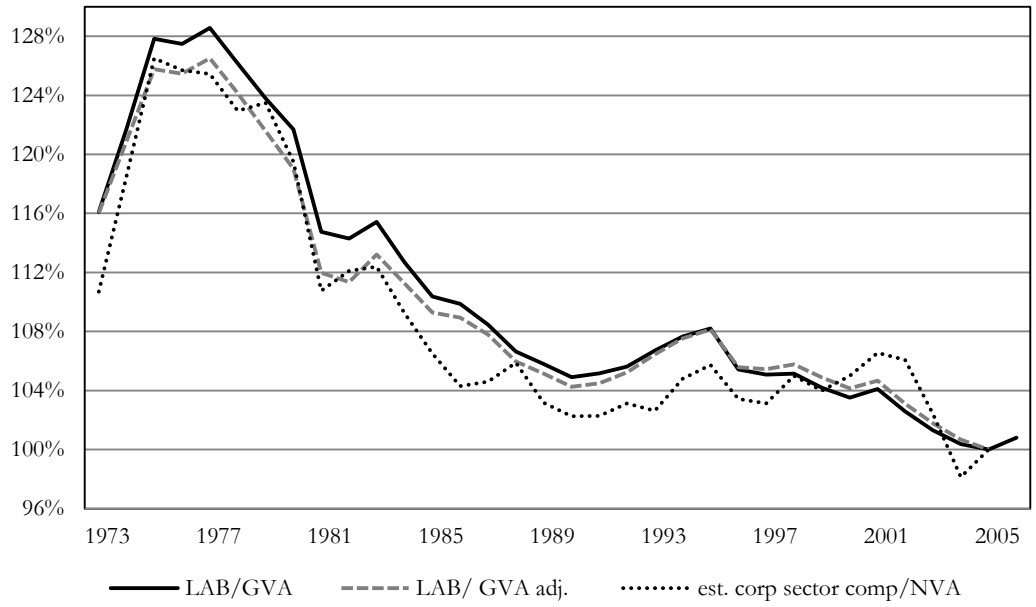

Figure 3.1.11 Distribution between labour compensation and property income in Japan, 1973–2006. Three ratios: LAB/GVA (labour compensation as % of gross value added); LAB/GVA adj. (labour compensation as % of estimated gross value added adjusted to depreciation of fixed assets at historical prices); est. corp. sector comp./NVA (estimated compensation of employees as % of net value added in the corporate sector).

Source: Own calculations based on LAB and GVA from the EU KLEMS database, November 2009; corp. sector comp. and NVA from OECD statistics; depreciation of fixed assets of US corporations from NIPA. See appendix 1–3 for full references and equations.

As can be seen in figure 3.1.11 and appendices 1–5, labour's share of income increased over the period 1973–1977 (–1975 according to *est. corp. sector comp./NVA*). Thereafter an almost continuous decline followed and by 2005, as appendix 6 shows, property had regained approximately 22.5 per cent relative to 1977. Over the period 1973–2005 labour's share fell by about 13.8 per cent according to the two LAB/GVA measures and by 9.7 per cent according to *est. corp. sector comp./NVA*. By the year 2006, labour had regained 0.8 per cent points according to *LAB/GVA* relative to the year before.

3.1.12 Korea

In the analysis of income distribution in Korea, the measures *LAB/GVA*, *LAB/GVA adj.* and *est. corp. sector comp./NVA* are available, the first for the period 1970–2007 and the last two for the period 1970–2005.

Distribution between labour compensation and property income in Korea, 1970–2007 (% of 2005 shares, annual figures)

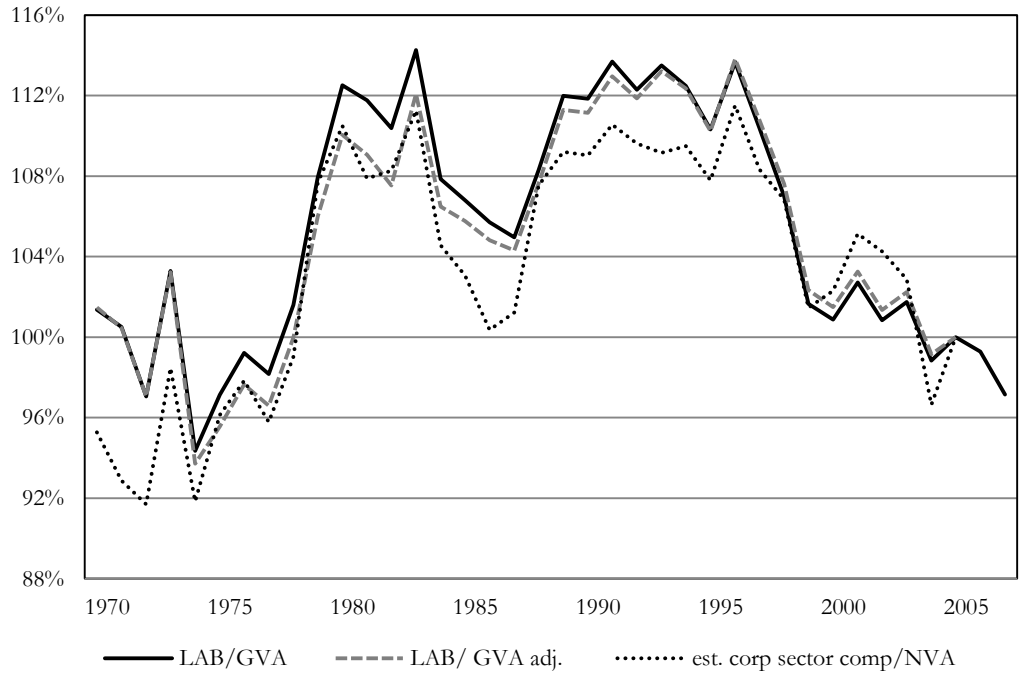

Figure 3.1.12 Distribution between labour compensation and property income in Korea, 1970–2007. Three ratios: LAB/GVA (labour compensation as % of gross value added); LAB/GVA adj. (labour compensation as % of estimated gross value added adjusted to depreciation of fixed assets at historical prices); est. corp. sector comp./NVA (estimated compensation of employees as % of net value added in the corporate sector).

Source: Own calculations based on LAB and GVA from the EU KLEMS database, November 2009; corp. sector comp. and NVA from OECD statistics; depreciation of fixed assets of US corporations from NIPA. See appendix 1–3 for full references and equations.

As can be seen in figure 3.1.12 and appendices 1–3 and 6, labour increased its share of income over the period 1970–1996 – by about 12.1 per cent according to *LAB/GVA* and *LAB/GVA adj.*, and by 17 per cent according to *est. corp. sector comp./NVA*. Thereafter it fell, until 2005, by about 12 per cent according to the LAB/GVA measures and by 10.3 per cent according to *est. corp. sector comp./NVA*. Over the longer period 1970–2005 it fell by about 1.4 percentage points according to *LAB/GVA* and *LAB/GVA adj.* but rose by about 5 per cent according to *est. corp. sector comp./NVA*. *LAB/GVA* indicates a fall by 2.8 per cent 2005–2007.

3.1.13 Netherlands

In the analysis of income distribution in the Netherlands, the same measures are available as for Italy, and for the same periods.

Distribution between labour compensation and property income in the Netherlands, 1970–2007 (% of 2005 shares, annual figures)

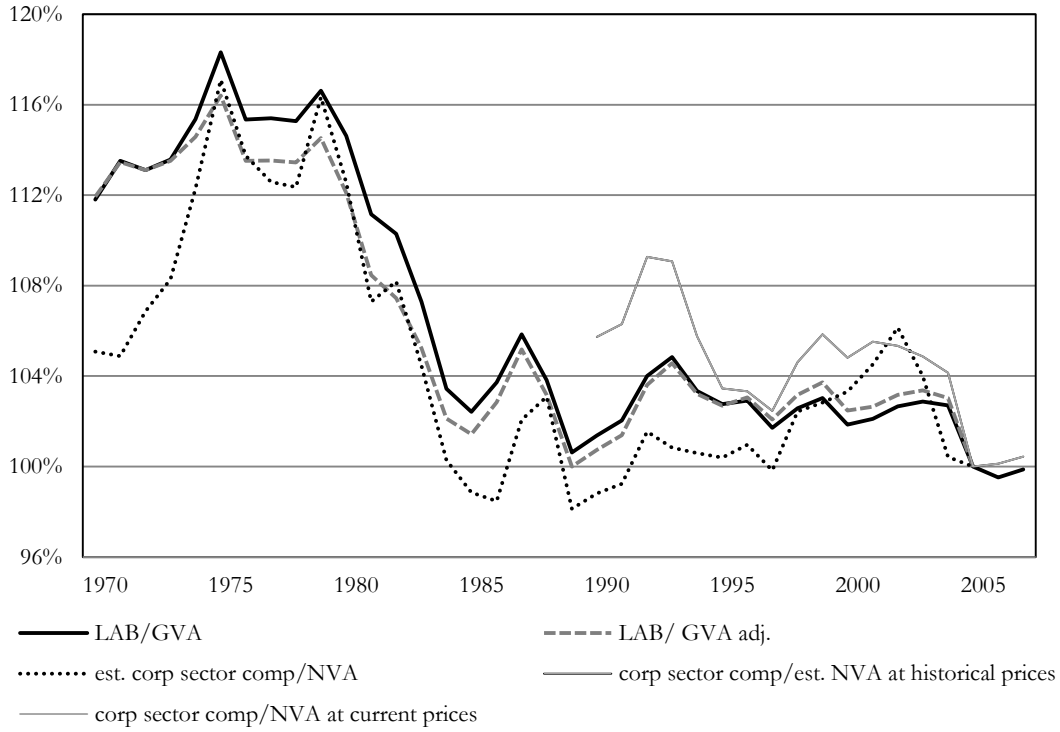

Figure 3.1.13 Distribution between labour compensation and property income in the Netherlands, 1970–2007. Five ratios: LAB/GVA (labour compensation as % of gross value added); LAB/GVA adj. (labour compensation as % of estimated gross value added adjusted to depreciation of fixed assets at historical prices); est. corp. sector comp./NVA (estimated compensation of employees as % of net value added in the corporate sector); corp. sector comp./NVA at current prices (compensation to employees in the corporate sector divided by net value added valued at current prices); corp. sector comp./est. NVA at historical prices (compensation to employees in the corporate sector divided by net value added valued at estimated historical prices).

Source: Own calculations based on LAB and GVA from the EU KLEMS database, November 2009; corp. sector comp. and NVA from OECD statistics; depreciation of fixed assets of US corporations from NIPA. See appendix 1–5 for full references and equations.

As can be seen in figure 3.1.13 and appendices 1–6, labour's share of income increased during the 1970s but fell sharply during the first half of the 1980s. It was then stable 1985–2004 according to LAB/GVA and rose slightly according to *LAB/GVA adj.* and, slightly more, according to *est. corp. sector comp./NVA*. The two LAB/GVA measures indicate a fall of 10.6 per cent in labour's share of income 1970–2005 and a fall of 4.8 per cent according to *est. corp. sector comp./NVA*. *Corp. sector comp./NVA at current prices* and *corp. sector comp./est. NVA at historical prices* indicate a fall by 5 and 4.5 per cent respectively over the period 1990–2007. Between 2005 and 2007, the shares remained stable.

3.1.14 Spain

In the analysis of income distribution in Spain, five measures are *available: LAB/GVA; LAB/GVA adj.; est. corp. sector comp./NVA; corp. sector comp./NVA at current prices and corp. sector comp./est. NVA at historical prices*. The first contains data for the years 1970–2007, the second and third 1970–2005, the fourth and fifth 2000–2007.

Distribution between labour compensation and property income in Spain, 1970–2007 (% of 2005 shares, annual figures)

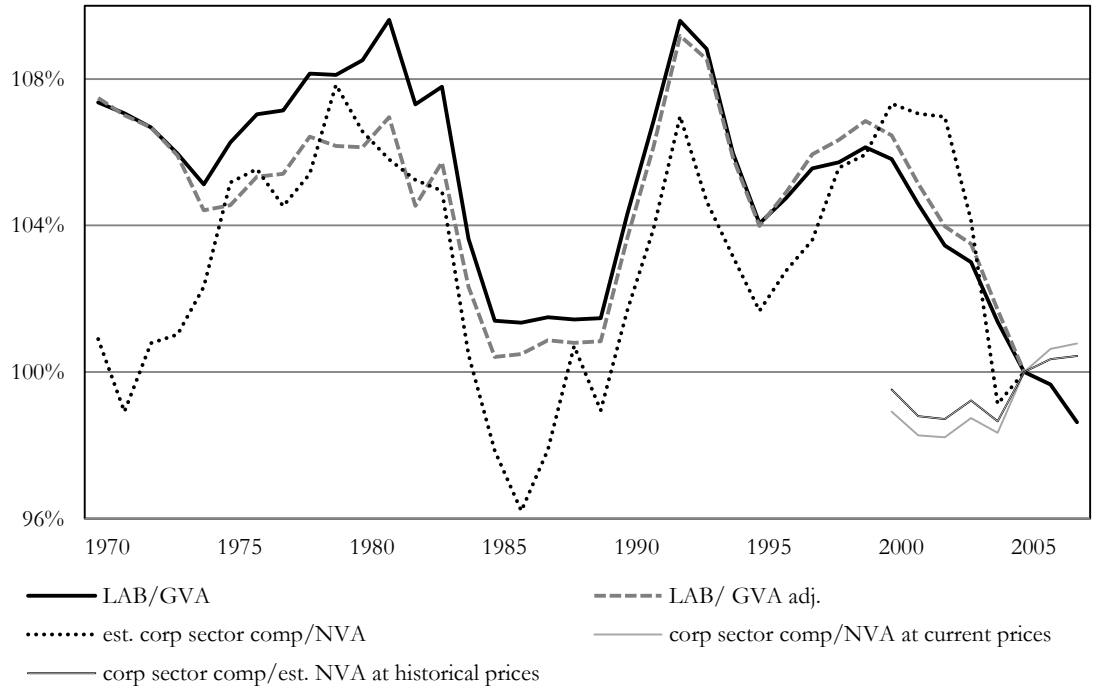

Figure 3.1.14 Distribution between labour compensation and property income in Spain, 1970–2007. Five ratios: LAB/GVA (labour compensation as % of gross value added); LAB/GVA adj. (labour compensation as % of estimated gross value added adjusted to depreciation of fixed assets at historical prices); est. corp. sector comp./NVA (estimated compensation of employees as % of net value added in the corporate sector); corp. sector comp./NVA at current prices (compensation to employees in the corporate sector divided by net value added valued at current prices); corp. sector comp./est. NVA at historical prices (compensation to employees in the corporate sector divided by net value added valued at estimated historical prices).

Source: Own calculations based on LAB and GVA from the EU KLEMS database, November 2009; corp. sector comp. and NVA from OECD statistics; depreciation of fixed assets of US corporations from NIPA. See appendix 1–5 for full references and equations.

As can be seen in appendix 6, labour's share of income fell over the period 1970–2005 – by approximately 6.9 per cent according to the two LAB/GVA measures and by 0.9 per cent according to *est. corp. sector comp./NVA*. Figure 3.1.14 shows that *LAB/GVA* and *est. corp. sector comp./NVA* increased during the 1970s although *LAB/GVA adj.* fell. By these three measures, labour's share fell sharply until the mid-1980s but started to recover in 1990, peaking in 1992. Over the period 1970–2005 labour's share fell by about 6.9 per cent according to the two LAB/GVA measures but by only 0.9 per cent according to *est. corp. sector comp./NVA*. LAB/GVA indicates an additional fall by about 1.4 per cent 2005–2007. *Corp. sector comp./NVA at current prices* and *corp. sector comp./est. NVA at historical prices* indicate a very different trend: an increase by 1.8 and 0.9 per cent respectively over the period 2000–2007.

3.1.15 Sweden

In the analysis of income distribution in the Sweden, the same measures are available as for Austria, Belgium, Denmark and Germany, and for the same periods.

Distribution between labour compensation and property income in Sweden, 1970–2007 (% of 2005 shares, annual figures)

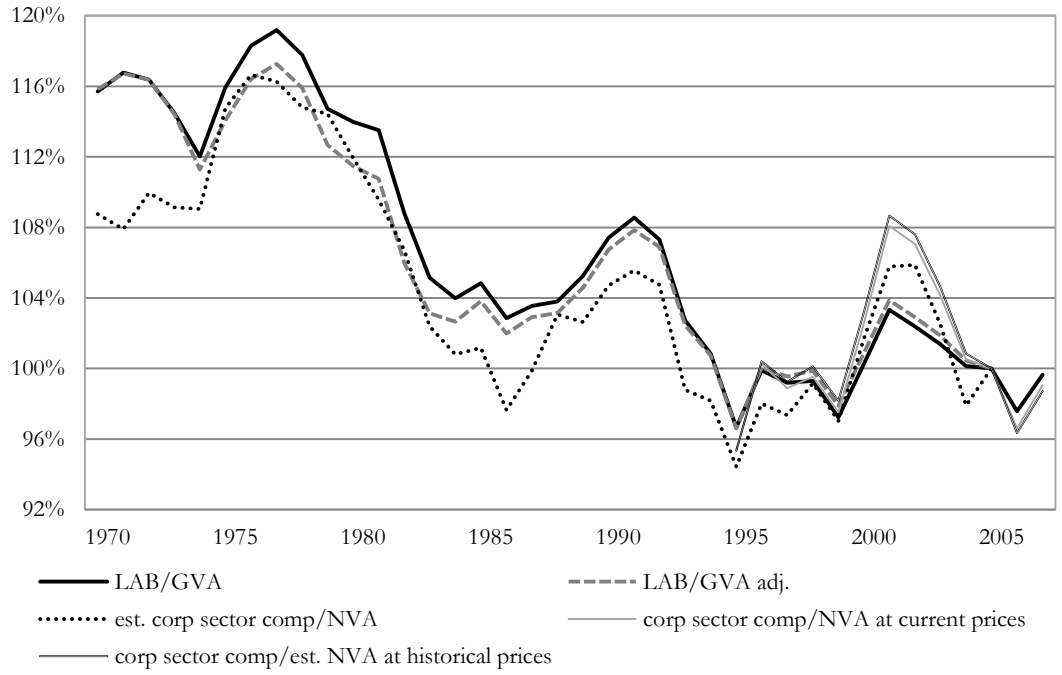

Figure 3.1.15 Distribution between labour compensation and property income in Sweden, 1970–2007. Five ratios: LAB/GVA (labour compensation as % of gross value added); LAB/GVA adj. (labour compensation as % of estimated gross value added adjusted to depreciation of fixed assets at historical prices); est. corp. sector comp./NVA (estimated compensation of employees as % of net value added in the corporate sector); corp. sector comp./NVA at current prices (compensation to employees in the corporate sector divided by net value added valued at current prices); corp. sector comp./est. NVA at historical prices (compensation to employees in the corporate sector divided by net value added valued at estimated historical prices).

Source: Own calculations based on LAB and GVA from the EU KLEMS database, November 2009; corp. sector comp. and NVA from OECD statistics; depreciation of fixed assets of US corporations from NIPA. See appendices 1–5 for full references and equations.

As can be seen in appendix 1–2, *LAB/GVA* and *GVA adj.* indicate a fall by about 13.6 per cent in labour's share of income over the period 1970–2005. *Est. corp. sector comp./NVA*, meanwhile, indicates a fall by 8 per cent over the same period (see appendix 3). As can be seen in figure 3.1.15, the three measures indicate that the fall began in the late 1970s before which it had risen slightly since 1970. Two other high points can be seen, one in 1991 and another in 2001, with a lower share in labour's compensation in-between. By the mid-1990s, labour's share fell to about 95 per cent of that in 2005. By 2007 labour's share of income remained at roughly the same level as in 2005. The two measures of compensation to employees/NVA in the corporate sector follow the other three measures closely although they indicate a sharper rise in labour compensation in 1999–2001.

3.1.16 United Kingdom

In the analysis of income distribution in the UK, the same measures are available as for Italy and the Netherlands, and for the same periods.

Distribution between labour compensation and property income in the United Kingdom, 1970–2007 (% of 2005 shares, annual figures)

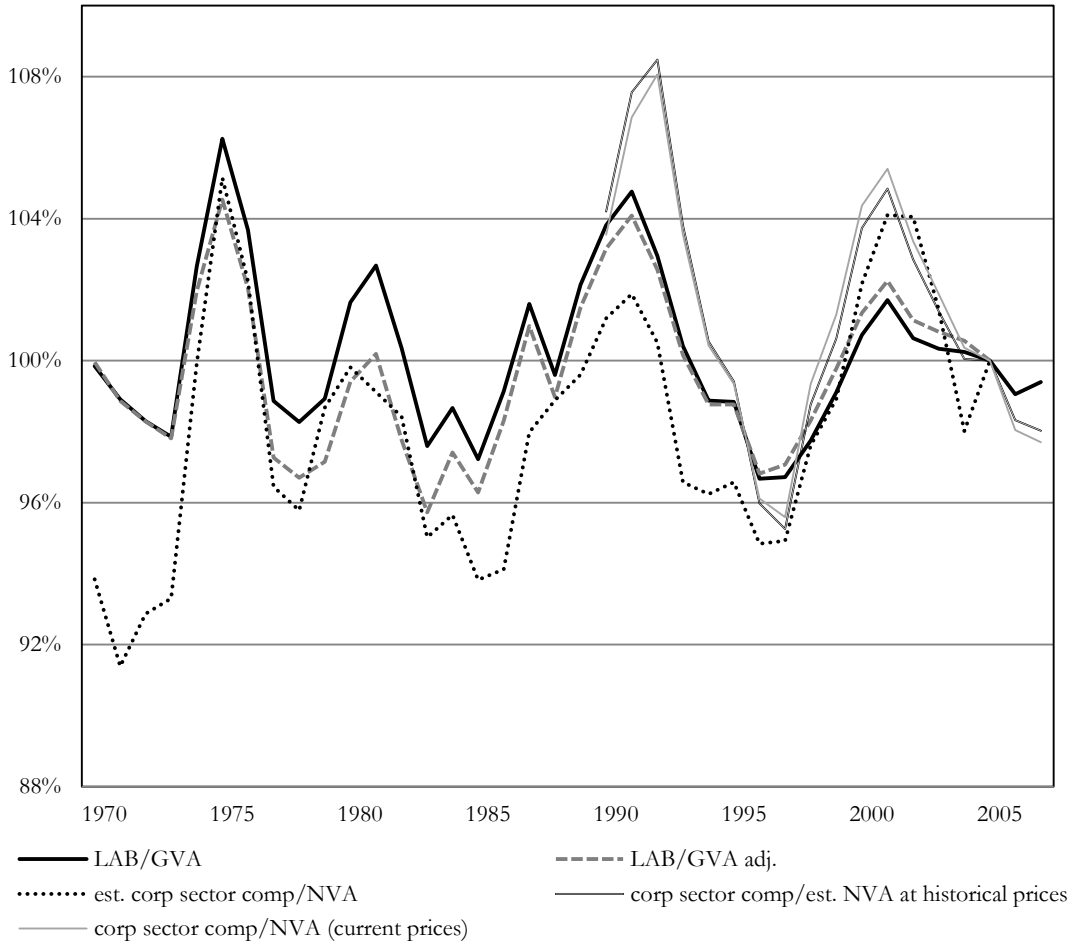

Figure 3.1.16 Distribution between labour compensation and property income in the United Kingdom, 1970–2007. Five ratios: LAB/GVA (labour compensation as % of gross value added); LAB/GVA adj. (labour compensation as % of estimated gross value added adjusted to depreciation of fixed assets at historical prices); est. corp. sector comp./NVA (estimated compensation of employees as % of net value added in the corporate sector); corp. sector comp./NVA at current prices (compensation to employees in the corporate sector divided by net value added valued at current prices); corp. sector comp./est. NVA at historical prices (compensation to employees in the corporate sector divided by net value added valued at estimated historical prices).

Source: Own calculations based on LAB and GVA from the EU KLEMS database, November 2009; corp. sector comp. and NVA from OECD statistics; depreciation of fixed assets of US corporations from NIPA. See appendix 1–5 for full references and equations.

As can be seen in figure 3.1.16 and appendices 1–6, *LAB/GVA* and *LAB/GVA adj.* indicate a stable share in labour's income over the period 1970–2005 with fluctuations of about 3 per cent around the average. *Est. corp. sector comp./NVA* indicates a rise of 6.6 per cent over the same period. The two measures of compensation to employees/NVA in the corporate sector largely follow the trends of the other three measures but show a greater volatility. *Corp. sector comp./NVA at current prices* and *corp. sector comp./est. NVA at historical prices* indicate a fall of 5.9 and 5.6 respectively in labour's share over the period 1990–2007. What is also visible in figure 3.1.16 is that labour's share of income fell by 1–2 percentage points 2005–2007.

3.1.17 United States

In the analysis of income distribution in the US, all the measures are available for the period 1970–2005 while *corp. sector comp./NVA at current prices* and *corp. sector comp./NVA at historical prices* continue two years longer.

Distribution between labour compensation and property income in the United States, 1970–2007 (% of 2005 shares, annual figures)

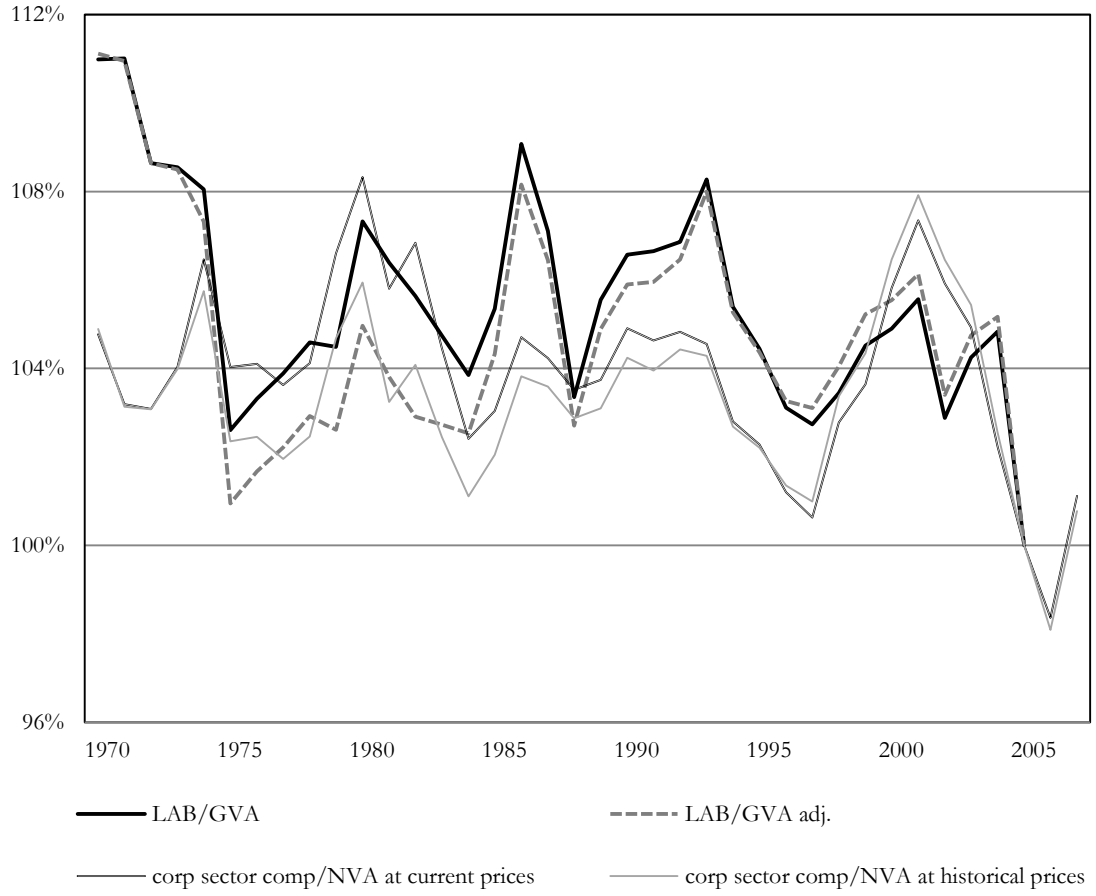

Figure 3.1.17 Distribution between labour compensation and property income in the United States, 1970–2007. Four ratios: LAB/GVA (labour compensation as % of gross value added); LAB/GVA adj. (labour compensation as % of estimated gross value added adjusted to depreciation of fixed assets at historical prices); corp. sector comp./NVA at current prices (compensation to employees in the corporate sector divided by net value added valued at current prices); corp. sector comp./NVA at historical prices (compensation to employees in the corporate sector divided by net value added valued at historical prices).

Source: Own calculations based on LAB and GVA from the EU KLEMS database, March 2008; corp. sector comp. and NVA from OECD statistics; depreciation of fixed assets of US corporations from NIPA. See appendix 1, 2, 4 and 5 for full references and equations.

As can be seen in figure 3.1.17 and appendices 1–2, *LAB/GVA* and *LAB/GVA adj.* fell sharply over the first half of the 1970s. According to the same measures, labour's share of income was then almost trendless until 2005 at which point it fell by 4.6 per cent in one year. *Corp. sector comp./NVA at current prices* and *corp. sector comp./NVA at historical prices* indicate a rise by 1.1 and 1.5 per cent respectively over the period 1970–2002, and then a fall by 5.6 and 6 per cent respectively 2002–2005. Over the period 1970–2005, *LAB/GVA*; *LAB/GVA adj*; *corp. sector comp./NVA at current prices* and *corp. sector comp./NVA at historical prices* indicate a fall in labour's share by 9.9; 10; 4.6 and 4.7 per cent respectively. Then *corp. sector comp./NVA at current prices* and *corp. sector comp./NVA at historical prices* indicate a rise by 1.1 and 0.8 per cent in labour's share in 2005–2007.

3.1.18 Developments after 2007

In the analysis of income distribution after 2007, the measures *corp. sector comp./NVA at current prices* and *corp. sector comp./est. NVA at historical prices* are available. Table 3.1.18 presents the evolution of labour's share relative to net value added in 2005–2010 and in 2007–2010 for 12 of the studied economies.

Table 3.1.18 Growth in compensation to employees in the corporate sector relative to net value added 2005–2010 and 2007–2010 (percentages)

	2005–2010		2007–2010	
	corp. sector comp./NVA at current prices	**corp. sector comp./est. NVA at historical prices***	**corp. sector comp./NVA at current prices**	**corp. sector comp./est. NVA at historical prices***
Austria	4.71	4.47	8.19	8.31
Belgium	0.33	4.64	4.54	4.64
Denmark	3.28	0.02	-2.93	-2.83
Finland	-5.28	7.98	14.27	14.39
France	-0.57	2.94	3.77	3.88
Germany	-5.03	-0.21	5.31	5.42
Italy	0.99	7.68	6.87	6.98
Netherlands	0.44	0.91	0.71	0.81
Spain	0.78	-2.45	-2.98	-2.88
Sweden	-0.95	-1.01	0.17	0.27
UK	-1.97	-0.03	2.22	2.23
US	1.11	-4.29	-5.13	-5.03
Average	-0.18	1.72	2.92	3.02

Notes: * US: Actual NVA at historical prices

Ratios: Corp. sector comp./NVA at current prices (compensation to employees in the corporate sector divided by net value added valued at current prices); corp. sector comp./est. NVA at historical prices (compensation to employees in the corporate sector divided by net value added valued at estimated historical prices).

Source: Own calculations based on Corp. sector comp. and NVA from OECD statistics; depreciation of fixed assets of US corporations from NIPA. See appendix 4–6 for full references and equations.

As can be seen from table 3.1.18, *corp. sector comp./NVA at current prices* indicates an increase in labour's share of income in 7 of the 12 economies in the period 2005–2010 and 9 of them in 2007–2010. Meanwhile, *corp. sector comp./est. NVA at historical prices* indicates an increasing share for 7 of the economies in 2005–2010 and for 9 economies in 2007–2010. The average growth of the 12 economies indicates an increasing share of between -0.18 and 1.72 per cent in 2005–2010 and between 2.92 and 3.02 in the period 2007–2010.

What can also be in seen from the table are substantial shifts in distribution for a number of economies during 2007–2010, for example Austria (8.19–8.31), Finland (14.27–14.39), Italy (6.87–6.98) and the US (-5.13 to -5.03).[14] Adding corp. sector comp./NVA data for the years after 2007 to figure 3.1.3; 3.1.6; 3.1.10 and 3.1.17 greatly modifies the picture of the evolution of income distribution for these economies (see appendices 8–11). As can be seen in the Austrian case (appendix 8), the two measures of compensation to employees in the corporate sector/NVA indicate a substantial rebound in labour's share of income; by 2009 it had regained the entire decline during 1995–2005 although it did not reach anywhere near the levels of the 1970s. In the case of Finland (appendix 9) the two measures of compensation to employees in the corporate sector/NVA indicate that by the year 2009, labour's share of income had rebounded to the level of 1984/1985 or 1978. Labour's share also increased in Italy over the period 2007–2010 and by 2009/2010 it had regained the level of 1992 – almost 9 percentage points above the 2005 distribution shares (appendix 10). In the US, labour's share of income was on an upward trajectory in 2007 – above the level of the 2005 shares and at about the same level as in 1975, 1984 or 1997. In 2008–2010, however, it fell sharply to a level 4 percentage points below that in 2005 – far below the average of the entire period and more than five percentage points below the lower points in the series (appendix 11).

Interpreting the developments after 2007 is actually outside the scope of this thesis but it may be appropriate to consider at least some of what has already been said elsewhere. Waldenström (2009:16), for example, argues that the "short-run effect of a financial turmoil would […] be a substantial reduction of the value of both the wealth and the size of capital-based incomes accruing to the rich." He notes that "reductions in the largest fortunes documented for several countries during 2008 and 2009 […] indicate that equalizing motions are in play during the current financial crisis."[15] At the same time he adds that "it is much less evident what the long-run effects on the rich will be".

[14] The figures for Spain also stand out in this table, but the data on compensation to employees in the corporate sector/NVA deviate strongly from for example the LAB/GVA measure for all the overlapping years. See 3.1.1.
[15] He also recalls that similar events occurred during the Great Depression in the US and in the crisis of the early 1990s in Sweden.

3.1.19 Summary of results and analysis

The main result from the analysis – changes in the distribution between labour compensation and property income for sixteen advanced economies – is that a fall in labour's share of income did take place in the majority of the economies in 1970–2007 and in 1970–2005. In Belgium and Denmark, however, all measures indicate that labour increased its share of income relative to property. For the period 1970–2005 this is also the case for the UK (although the LAB/GVA and LAB/GVA adj. measures indicate that shares remained unchanged over the period, see appendix 6). The analysis has also shown that distribution shares varied among the different measures, especially in their levels, but for all the 16 economies (with the exception of Spain), the five measures indicate very similar trends. For some of the economies like Austria, the overall trend is a secular decline throughout the period. Other economies, such as the UK, display a cyclical pattern with no sharp trajectory either upwards or downwards over a longer period. For several economies, e.g. Australia, France and Japan, one can see a high point of labour compensation in the early–mid 1970s and a declining share from the early 1980s onwards. Ironically, labour's share of compensation decreased substantially throughout the whole Mitterrand presidency (1981–1995, France) despite the many reforms of the socialist government such as an increase of the minimum wage, the introduction of a solidarity tax on the rich and the extension of workers' bargaining rights.

For the majority of economies, the change in income distribution varied around 1–12 per cent, most often to the benefit of property, although in some countries, e.g. Austria and Finland, the change was closer to 17 per cent – a quite substantial shift. As table 3.1.18 showed, however, the evolution of income distribution in 2007–2010 went through new important shifts for many of the economies; in some cases, strong shifts in the favour of property were reversed in these years while in other cases, such as the US, property greatly increased its share of income in just two years. This implies that the choice of end points in the series plays an important role for the trajectory of the overall trend as rapid movements can occur in just one or two years.

When looking at the longer period, however, the overall trend is that the labour share decreased by, on average, 2.5 per cent according to *est. corp. sector comp./NVA* (1970–2005) and by 8.2 (1970–2005) or 8.7 (1970–2007) per cent according to the LAB/GVA ratio (see appendix 6). Table 3.1.19 summarises the median and average values for the sixteen economies in the study:

Table 3.1.19 Median and average change in labour compensation relative to property income of sixteen advanced economies,[1] 1970–2007 (percentages)

	1970–2005[2]			1970–2007[3]
	LAB/GVA	**LAB/GVA adj.**	**est. corp. sector comp./NVA**	**LAB/GVA**
Median	-9.69	-9.79	-4.18	-10.61
Average	-8.21	-8.31	-2.46	-8.71

Notes: [1] Australia, Austria, Belgium, Denmark, Finland, France, Germany, Ireland, Italy, Japan, Korea, Netherlands, Spain, Sweden, UK and US, [2] Japan 1973–2005, [3] Japan 1973–2006 and excl. US.

Ratios: LAB/GVA (labour compensation as % of gross value added); LAB/GVA adj. (labour compensation as % of estimated gross value added adjusted to depreciation of fixed assets at historical prices); est. corp. sector comp./NVA (estimated compensation of employees as % of net value added in the corporate sector).

Source: Own calculations based on LAB and GVA from the EU KLEMS database, November 2009 and March 2008; corp. sector comp. and NVA from OECD statistics; depreciation of fixed assets of US corporations from NIPA. See appendix 1–6 for full references and equations.

In the next section I will assess the impact of the change in distribution by placing it in relation to economic growth.

3.2 The relationship between income distribution and economic growth and their impact on labour compensation

How labour compensation was affected by the relationship between income distribution and economic growth will be assessed in two steps:

1. from the point of view of the relative importance of the two factors;
2. by looking at possible correspondence between changes in distribution and changes in the rate of economic growth.

The following measures are used: GDP per capita (Maddison 2010), *LAB/GVA* and *est. corp. sector comp./NVA*. The ratio *LAB/GVA adj.* will not be assessed in this context however. The motive for not including it is that this ratio displays almost the same long term trend as *LAB/GVA* (see figure 3.1.2–3.1.17 and appendix 7).

3.2.1 The relative importance of changes in distribution versus economic growth for the growth in labour compensation

Under this heading the relative importance of distribution versus economic growth will be assessed, i.e. their importance for the growth in labour compensation. First, GDP per capita figures will be presented for themselves and then growth in real labour compensation calculated as shares of GDP per capita.

Table 3.2.1a GDP per capita growth in sixteen advanced economies and the world average, 1950–2007 (average yearly growth, percentages)[1]

	1950–1970	1970–2005	1970–2007
Australia	2.58	1.99	2.00
Austria	5.22	2.37	2.43
Belgium	3.56	2.14	2.17
Denmark	3.22	1.84	1.85
Finland	4.36	2.42	2.53
France	4.24	1.83	1.83
Germany	5.55	1.68	1.74
Ireland	3.13	4.25	4.27
Italy	5.52	2.00	1.98
Japan	8.91	2.36	2.35
Korea	5.02	6.15	6.08
Netherlands	3.70	1.88	1.94
Spain	5.74	3.07	3.10
Sweden	3.50	1.64	1.72
UK	2.34	2.13	2.15
US	2.41	2.04	2.01
Median	3.97	2.09	2.08
Average	4.31	2.49	2.51
World average	3.04	1.80	1.89

Notes: [1] Deflator: 1990 int. Geary–Khamis dollars (Maddison 2010)

Source: Own calculations based on Maddison (2010)

As table 3.2.1a shows, the annual GDP per capita growth of the advanced economies was far greater 1950–1970 than during 1970–2005/2007. In all but two of these economies – Ireland and Korea – and including the world average, the yearly growth in GDP per capita was between 0.19 (UK) and 6.55 (Japan) percentage points lower during 1970–2007 than in 1950–1970, a slowdown by 8.1 and 73.6 per cent respectively. The average slowdown for the sixteen advanced economies and the world, comparing the same periods, was 41.8 and 37.8 per cent respectively.

The next table illustrates average yearly growth in labour compensation 1970–2005 and 1970–2007 calculated as percentage shares of total value added applied to the Maddison (2010) GDP per capita data.[16] An assumed *actual* growth in labour compensation is made by taking the average shares in the distribution between labour compensation and property income measured by the ratio LAB/GVA. In addition, two purely counter-factual growth scenarios are displayed – one (A) where income distribution remained at the shares of the first year (1970) throughout the periods and another (B) where the last year (2005/2007[17]) is set as constant.

[16] In the case of Japan the time periods are once again 1973–2005 and 1973–2006.
[17] Japan: 2006

Table 3.2.1b Growth in real[1] labour compensation[2] in sixteen advanced economies, 1970–2007 (average yearly growth, percentages; actual and counter-factual values)

	Actual[3]		Counter-factual A[4]		Counter-factual B[5]	
	1970–2005[6]	1970–2007[7]	1970–2005[6]	1970–2007[7]	1970–2005[6]	1970–2007[7]
Australia	1.2958	1.2970	1.2994	1.3059	1.1868	1.2026
Austria	1.6366	1.6692	1.7877	1.8330	1.4873	1.5034
Belgium	1.3863	1.4046	1.2555	1.2731	1.3720	1.3804
Denmark	1.2573	1.2645	1.2372	1.2439	1.2464	1.2855
Finland	1.7093	1.7775	1.8429	1.9267	1.5798	1.5872
France	1.2929	1.2876	1.4100	1.4100	1.1962	1.1857
Germany	1.1699	1.2059	1.1824	1.2246	1.0924	1.0947
Ireland	2.6057	2.6060	2.7488	2.7617	2.3780	2.4176
Italy	1.4142	1.3938	1.4245	1.4102	1.2893	1.2756
Japan	1.4580	1.4479	1.5256	1.5191	1.3140	1.3191
Korea	4.8235	4.7507	4.6236	4.5710	4.5612	4.3809
Netherlands	1.3133	1.3503	1.3721	1.4159	1.2272	1.2648
Spain	1.9688	1.9818	2.0061	2.0257	1.8686	1.8611
Sweden	1.1778	1.2302	1.2732	1.3353	1.1003	1.1499
UK	1.5384	1.5520	1.5327	1.5471	1.7153	1.5401
US	1.2988	-	1.3660	-	1.2307	-
Median[8]	1.4003	1.3992	1.4173	1.4131	1.3017	1.3023
Average[8]	1.7092	1.7199	1.7430	1.7606	1.6153	1.6050
Median excl. Japan & US	1.4003	1.3992	1.4173	1.4131	1.3307	1.3330
Average excl. Japan & US	1.7564	1.7694	1.7854	1.8060	1.6643	1.6521

Notes: [1] Deflator: 1990 int. Geary–Khamis dollars (Maddison 2010), [2] LAB/GVA, [3] income distribution: average % shares over the period, [4] income distribution fixed at first year (1970) throughout the period [5] income distribution fixed at last year (2005/2006/2007) throughout the period [6] Japan: 1973–2005, [7] Japan: 1973–2006, [8] incl. US 1970–2005.

Source: Own calculations based on LAB and GVA from the EU KLEMS database, November 2009 and March 2008; GDP per capita from Maddison (2010). See appendix 1–6 for full references and equations.

Table 3.2.1a shows the impacts of different distribution shares (between labour compensation and gross value added) on the growth in labour compensation. Of all the scenarios in the table, the greatest difference in growth over an identical time period is that between counter-factual A and counter-factual B in the case of Austria (1970–2007); here, the change from counter-factual scenario A to counter-factual scenario B indicates a fall in the growth of 18 per cent. This comparison indicates the change in the growth of labour compensation over a 37 year period from where labour's share of GVA is assumed to be at 75.43 per cent (its share in 1970) to 61.87 per cent (its share in 2007) – two extreme points in the series where the actual average is 68.69 per cent. For the same economy and time period, the change in the rate of growth from the actual scenario (labour's share: 68.69 per cent) to counter-factual scenario B (labour's share: 61.87 per cent) is a fall of 9.9 per cent. It shows how much slower the growth in labour compensation would have been – all else being equal – if GDP per capita grew at the same rate for another 37

years but where labour's share of income would not recover at all from its 1970–2007 decline. As could be seen in table 3.1.18.1 however, this does not seem to have happened after 2007. All the other scenarios show smaller differences than the Austrian case.

In regard to the median and average of all the economies in the period 1970–2005, the percentage change from the counter-factual growth scenario A to the actual growth is a fall of 1.2 and 1.9 per cent respectively; in 1970–2007 the fall is 1 and 2.3 per cent respectively. When excluding Japan and the US, the median and average percentage change from counter-factual growth scenario A to the actual growth is a fall of 1.2 and 1.6 per cent respectively in 1970–2005, and 1 and 2 per cent respectively in 1970–2007.

Table 3.2.1c Growth in estimated real[1] compensation to employees[2] in sixteen advanced economies, 1970–2005[3] (average yearly growth, percentages; actual and counter-factual values)

	Actual[4]	Counter-factual A[5]	Counter-factual B[6]
Australia	1.3487	1.2994	1.2627
Austria	1.7029	1.7877	1.5824
Belgium	1.4441	1.2555	1.4598
Denmark	1.3092	1.2372	1.3261
Finland	1.7781	1.8429	1.6808
France	1.3452	1.4100	1.2727
Germany	1.2179	1.1824	1.1623
Ireland	2.7103	2.7488	2.5302
Italy	1.4714	1.4245	1.3718
Japan	1.5236	1.5476	1.3981
Korea	5.0221	4.6236	4.8530
Netherlands	1.3670	1.3721	1.3058
Spain	2.0498	2.0061	1.9882
Sweden	1.2257	1.2732	1.1707
UK	1.6020	1.5327	1.8250
US	1.3485	1.3660	1.3023
Median	1.4578	1.4173	1.3850
Average	1.7792	1.7444	1.7182
Median excl. Japan & US	1.4578	1.4173	1.4158
Average excl. Japan & US	1.8496	1.8143	1.7687

Notes: [1] Deflator: 1990 int. Geary–Khamis dollars (Maddison 2010), [2] est. corp. sector comp./NVA [3] Japan: 1973–2005, [4] income distribution: average % shares over the period, [5] income distribution fixed at first year (1970) throughout the period, [6] income distribution fixed at last year (2005) throughout the period.

Source: Own calculations based on LAB and GVA from the EU KLEMS database, November 2009 and March 2008; corp. sector comp. and NVA from OECD statistics; depreciation of fixed assets of US corporations from NIPA; GDP per capita from Maddison (2010). See appendix 1–6 for full references and equations.

Table 3.2.1c presents the same kind of scenarios as table 3.2.1b but with the measure *est. corp. sector comp./NVA* and for the period 1970–2005 only. Of all the scenarios in table 3.2.1c, the greatest difference in distribution shares (between estimated compensation to employees and NVA valued at historical prices) is a 19 per cent increase from counter-factual A to counter-factual B in the case of the UK. This means that if distribution had remained fixed at its 2005 shares over the whole period, compensation to employees in the UK would have been – all other things being equal – almost 20 per cent higher than if the distribution shares had been at their 1970 shares. The most extreme case where compensation to employees would have been higher with distribution shares fixed at 1970 is once again Austria. In this case, the rate of growth in compensation to employees falls by 11.5 per cent in counter-factual scenario B, i.e. with distribution shares fixed at 2005, relative to counter-factual scenario A. Table 3.2.1c thus indicates that of all the actual and counter-factual scenarios, estimated growth in compensation to

employees evolved within the margins of an increase of 19 per cent or a decrease of 11.5 per cent. The median and average percentage change, of all the economies, from the counter-factual growth scenario A to the actual growth is a fall of 2.9 and 2 per cent respectively (2.9 and 1.9 when excluding Japan and the US).

Now, comparing the figures on distribution from either of the tables (3.2.1b or 3.2.1c) with the percentage change in GDP per capita growth, it is clear that the slowdown in economic growth played a much greater role. The median and average percentage change in per capita growth of the sixteen advanced economies was *a decline of 48 and 42 per cent* respectively, from the period 1950–1970 to the period 1970–2007. Meanwhile, the medians and averages of table 3.2.1b and 3.2.1c point towards a decline of about 2 per cent; no individual fall was greater than 18 per cent and no individual increase greater than 19 per cent.

3.2.2 Correspondence between changes in distribution and changes in the rate of economic growth

We now turn to the issue of correspondence between changes in the distribution between, on the one hand, labour compensation and property income and, on the other hand, changes in the rate of economic growth in the sixteen economies.

Figure 3.2.2a and 3.2.2b summarise the data in appendix 7. The X-axis indicate the percentage change in distribution over the period 1970–2005 (1973–2005 in the case of Japan) and the Y axis indicate the percentage change in average GDP per capita growth from the period 1950–1970 (Japan: 1950–1973) to the period 1970–2005 (Japan: 1973–2005).

As can be seen in the two figures, the majority of the economies have experienced both a slowdown in economic growth and a shift in distribution from labour compensation to property income. The major difference between the two is that the LAB/GVA rate in figure 3.2.2a shows a stronger shift in distribution than *est. corp. comp.*$/NVA$ in figure 3.2.2b. Another difference is that in the case of Korea, LAB/GVA is falling while *est. corp. comp.*$/NVA$ is rising. In both figures and in appendix 7 one can see that Denmark, Belgium and the UK have experienced weaker economic growth but a change in distribution in the favour of labour compensation; and in the case of Ireland the opposite development seems to have occurred.

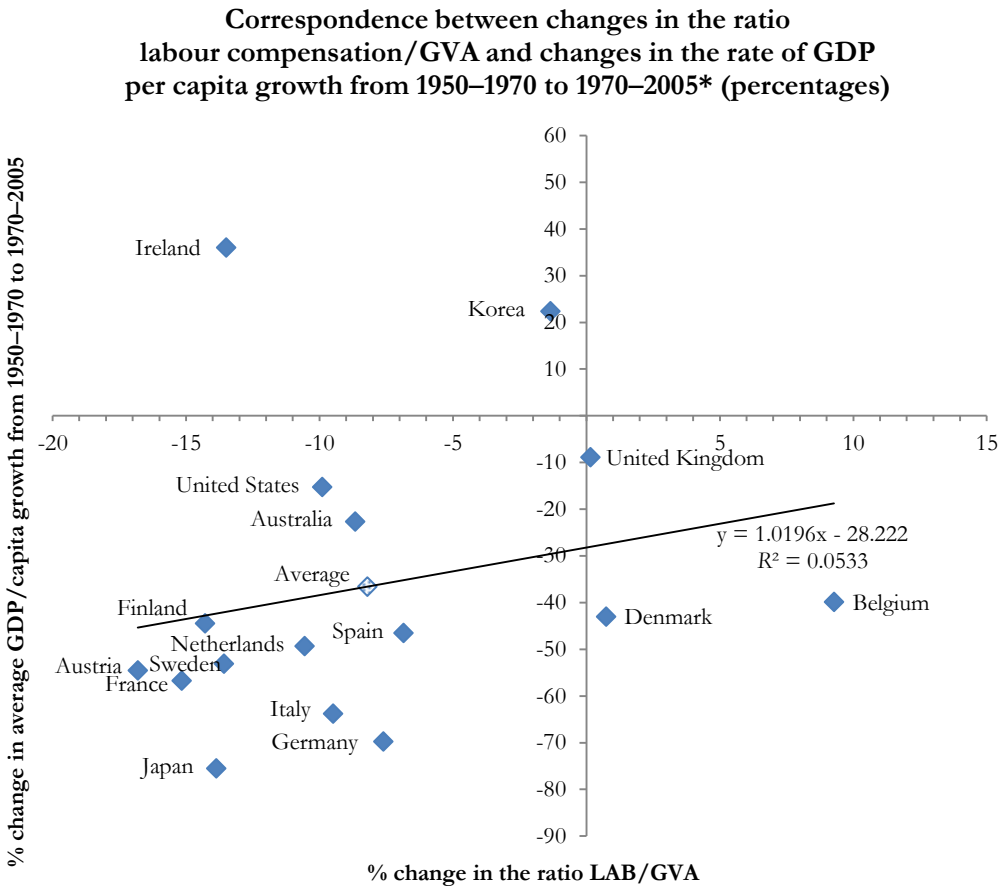

Figure 3.2.2a Correspondence between changes in the ratio labour compensation/GVA and changes in the rate of GDP per capita growth from 1950–1970 to 1970–2005 (percentages). LAB/GVA: labour compensation as % of gross value added.

Notes: * Japan: 1950–1973/1973–2005

Source: Own calculations based on LAB and GVA from the EU KLEMS database, November 2009 and March 2008; GDP/capita from Maddison (2010). See appendix 1–7.

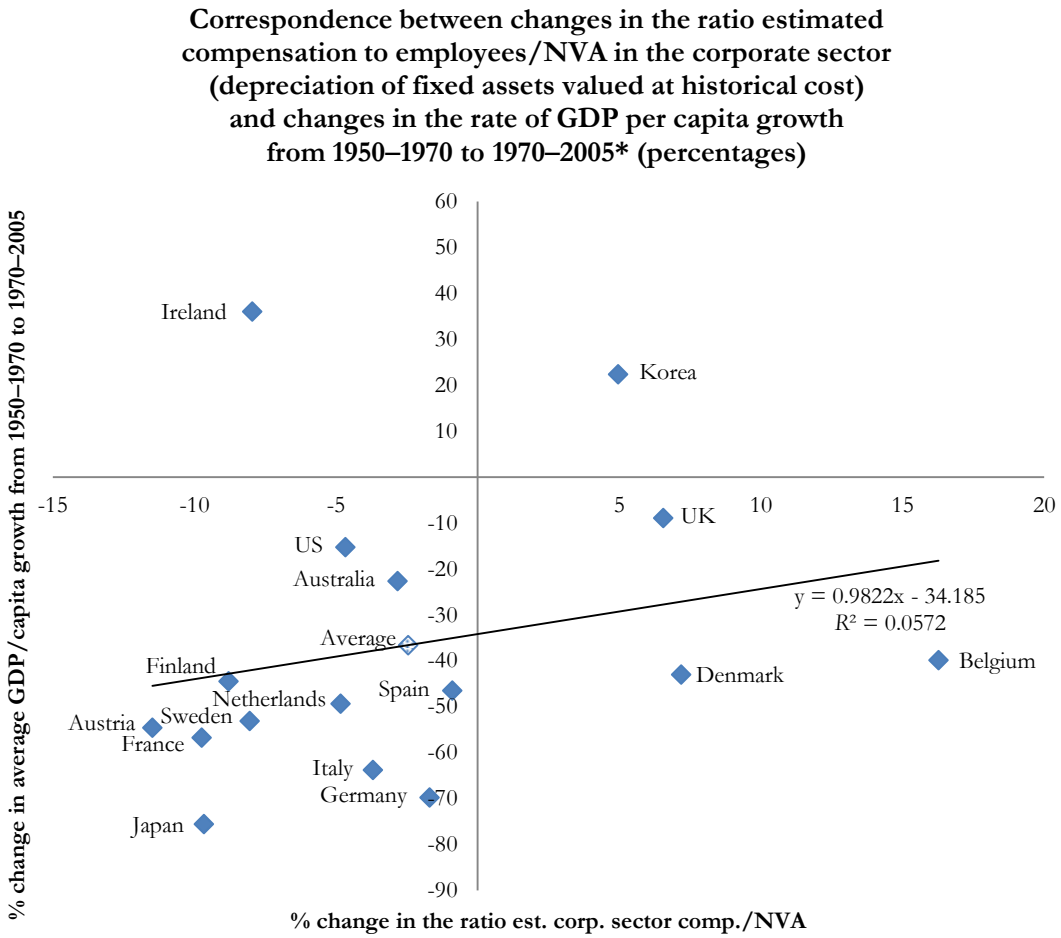

Figure 3.2.2b Correspondence between changes in the ratio estimated compensation to employees/NVA in the corporate sector (depreciation of fixed assets valued at historical cost) and changes in the rate of GDP per capita growth from 1950–1970 to 1970–2005 (percentages). Est. corp. sector comp./ NVA: estimated compensation of employees as % of net value added in the corporate sector (depreciation valued at historical cost).

Notes: * Japan: 1950–1973/1973–2005

Source: Own calculations based on LAB and GVA from the EU KLEMS database, November 2009 and March 2008; corp. sector comp. and NVA from OECD statistics; depreciation of fixed assets of US corporations from NIPA; GDP per capita from Maddison (2010). See appendix 1–7.

So how strong is the correlation between the two variables? In the two graphs above only the periods taken as a whole are compared with the change in the rate of growth between periods and this gives an R^2 value of less than 6 per cent. Comparing instead the slope coefficients of the ratios of income distribution and excluding the outlier Ireland – gives a quite different result, as can be seen in figure 3.2.2c and 3.2.2d:

Correlation between the slope coefficients of the ratio LAB/GVA and percentage change in the rate of GDP per capita growth from 1950–1970 to 1970–2005* (excl. Ireland)

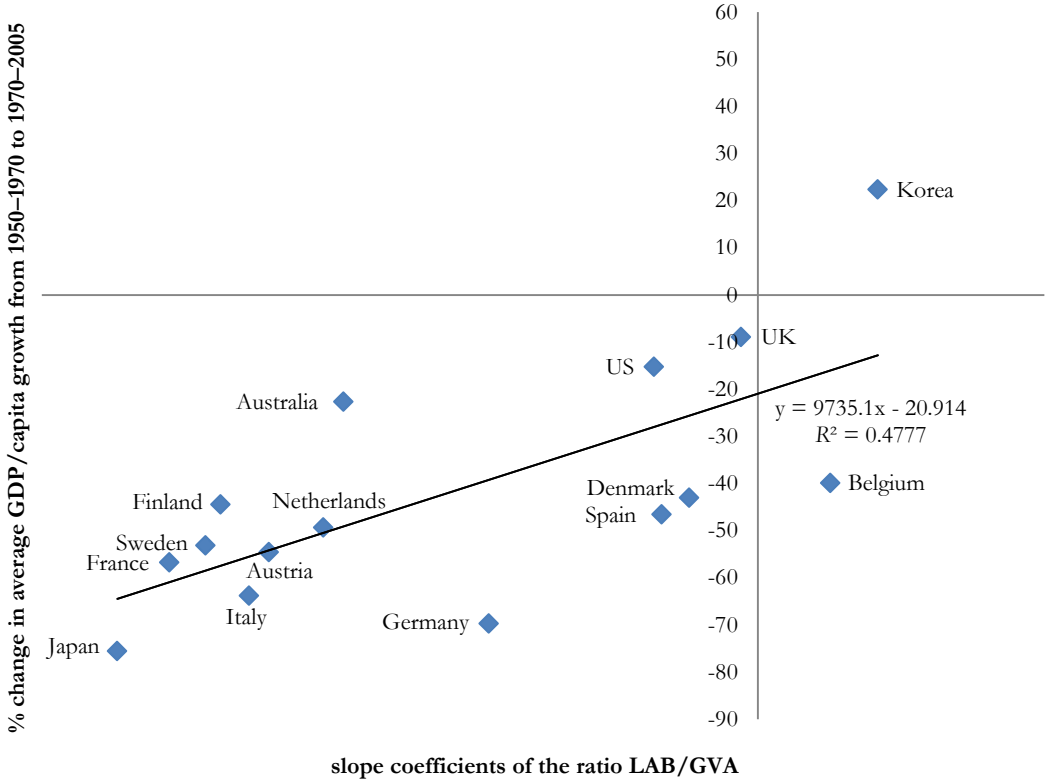

Figure 3.2.2c — Correlation between slope coefficients of the ratio est. corp. sector comp./NVA and the percentage change in the rate of GDP per capita growth from 1950–1970 to 1970–2005 (excl. Ireland). LAB/GVA: labour compensation as % of gross value added.

Notes: * Japan: 1950–1973/1973–2005

Est. corp. sector comp./NVA slope coefficients (%): Australia -0.29; Austria -0.34; Belgium 0.05; Denmark 0.05; Finland -0.38; France -0.41; Germany -0.19; Italy -0.36; Japan -0.45; Korea 0.08; Netherlands -0.30; Spain -0.07; Sweden -0.39; UK -0.01; US -0.07.

Changes in average rate of GDP/capita growth (%): Australia -22.69; Austria -54.58; Belgium -39.90; Denmark -43.06; Finland -44.48; France -56.78; Germany -69.76; Italy -63.81; Japan -75.58; Korea 22.36; Netherlands -49.37; Spain 46.54; Sweden -53.15; UK -8.93; US -36.60.

Source: Calculations by A. Kliman and myself based on LAB and GVA from the EU KLEMS database, November 2009 and March 2008; corp. sector comp. and NVA from OECD statistics; depreciation of fixed assets of US corporations from NIPA; GDP per capita from Maddison (2010). See appendix 1–6.

Correlation between slope coefficients of the ratio est. corp. sector comp./NVA and the percentage changes in the average rate of GDP per capita growth from 1950–1970 to 1970–2005* (excl. Ireland)

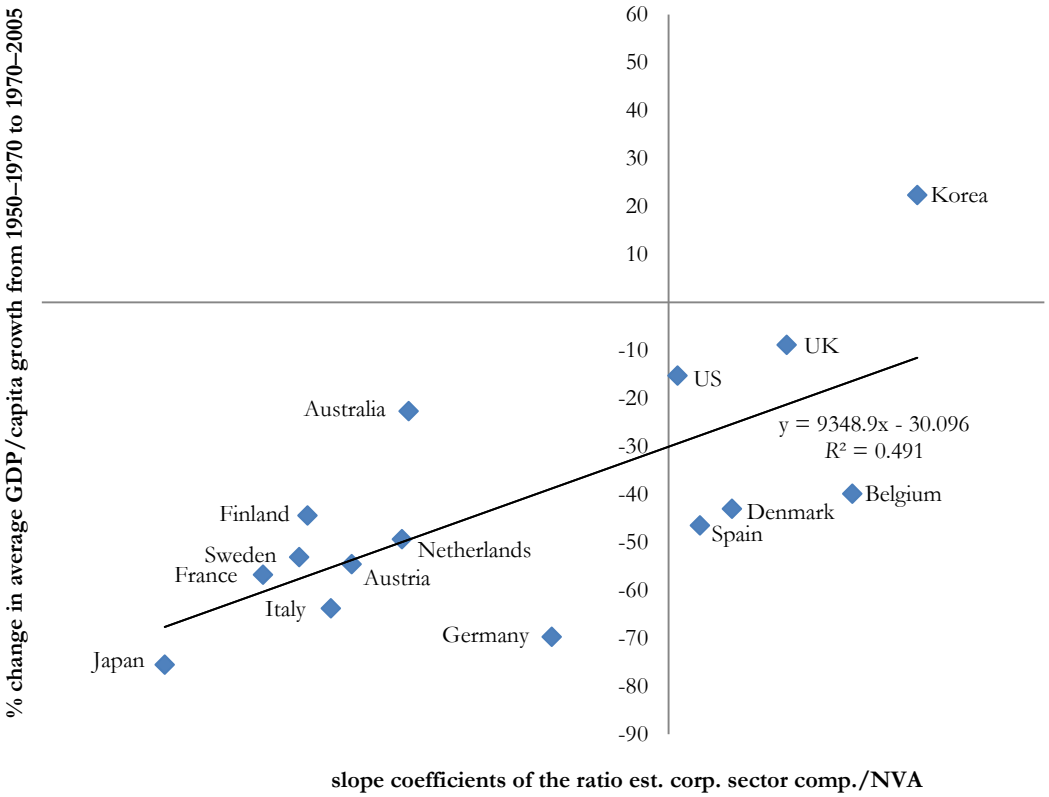

Figure 3.2.2d Correlation between slope coefficients of the ratio est. corp. sector comp./NVA and the percentage change in the rate of GDP per capita growth from 1950–1970 to 1970–2005 (excl. Ireland). Est. corp. sector comp./NVA: estimated compensation of employees as % of net value added in the corporate sector (depreciation valued at historical cost).

Notes: * Japan: 1950–1973/1973–2005

Est. corp. sector comp./NVA slope coefficients (%): Australia -0.21; Austria -0.25; Belgium 0.15; Denmark 0.05; Finland -0.29; France -0.32; Germany -0.09; Italy -0.27; Japan -0.40; Korea 0.20; Netherlands -0.21; Spain 0.03; Sweden -0.29; UK 0.09; US 0.01

Changes in average rate of GDP/capita growth (%): Australia -22.69; Austria -54.58; Belgium -39.90; Denmark -43.06; Finland -44.48; France -56.78; Germany -69.76; Italy -63.81; Japan -75.58; Korea 22.36; Netherlands -49.37; Spain 46.54; Sweden -53.15; UK -8.93; US -36.60

Source: Calculations by A. Kliman and myself based on LAB and GVA from the EU KLEMS database, November 2009 and March 2008; corp. sector comp. and NVA from OECD statistics; depreciation of fixed assets of US corporations from NIPA; GDP per capita from Maddison (2010). See appendix 1–7.

Figure 3.2.2c and 3.2.2d each shows an R^2 value of almost 50 per cent which indicates that there *might* actually be a connection between the changes in the average rate of economic growth and of changes in distribution between labour compensation and property income. The analysis cannot give a clear answer though, partly because the relationship is not very strong and partly because many other factors are likely to influence both variables. Empirically, however, it must be concluded that, in most cases, distribution has shifted somewhat in the favour of property income where also the rate of GDP per capita growth has fallen.

3.2.3 Summary of results

The main results from 3.2.1 and 3.2.2 are the following: the slowdown in (per capita) economic growth was in general much more important than any shifts in distribution between labour compensation and property income, including in a number of counter-factual scenarios. At the same time, income distribution generally shifted, at least to some degree, from labour compensation to property income when average GDP per capita was growing more slowly. A strong and very likely connection between changes in distribution and changes in the average rate of economic growth could however not be established; a small group of economies deviate strongly from the trend and further research is needed to understand why this is so.

4 Conclusions

What has been the evolution of distribution between labour compensation and property income?

The distribution analysis that was made by using a number of different measures (see appendix 1–6) showed that, in general, income has shifted in favour of property in advanced economies 1970–2007. It is almost always the case that the different measures also point in the same direction; they *either* indicate falling *or* rising shares of labour compensation, except for in a few cases. One important observation could be made however: the slopes of the trends varied considerably between, on the one hand, the *LAB/GVA* ratios and, on the other hand, est. corp. sector comp./NVA, i.e. the main proxy for Kliman's measure of income distribution. *LAB/GVA* indicates a fall in the labour share by 8.2–8.7 per cent on average while *est. corp. sector comp./NVA* indicates only a 2.5 per cent fall (see table 3.1.19 and appendix 6). Unsurprisingly, the results of the former are largely consistent with Arpaia et al. (2009) and to some extent also with Harrison (2002). If the trends of the estimated corp. sector comp./NVA ratio is close to what actual data would show – something which is hard to know for certain – then *it seems that depreciation of fixed assets has a great influence on the relationship between labour compensation and property income*; *including it, i.e. to ultimately consider depreciation as profit, tends to depress the labour share; excluding it substantially limits such distribution shifts*. These findings, although they rely on a long series of assumptions, suggest that future research on distribution between labour compensation and property income should take this factor into account. If depreciation is not controlled for, and it continues to grow at an accelerating rate, researchers may risk producing increasingly misleading results.

What has been the relative importance of changes in distribution and changes in economic growth for the growth in labour compensation?

The analysis of the relative importance of the two factors clearly shows that the changes in the rate of economic growth played a superior role. While changes in distribution accounted for only about, on average, *2 per cent* of the fall in the rate of growth of labour compensation, the fall in GDP per capita growth accounted for more than *40 per cent*. The counter-factual analysis also showed that even under extreme circumstances distribution shifts still do not seem to be more important than changes in the rate of economic growth.

Is there evidence to suggest that falling rates of economic growth have been associated with falling ratios of labour compensation to property income?

The analysis could not provide a clear answer to this question. Empirically, the shares of labour compensation have fallen in the majority of cases where economic growth has slowed down (from 1950–1970 to 1970–2005). It cannot be excluded that this is a coincident however, and an analysis that seeks to demonstrate that there is actually a connection needs to explain why Belgium, Denmark or Ireland are exceptions in this case. A not entirely meagre correlation (R^2 0.48/0.49) could be seen when Ireland was excluded from the group. Still, the influence of other variables on the relation is very likely. The answer to this question must therefore be that further research is needed.

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Appendix 1 LAB/GVA: Labour compensation as percentage of gross value added, 1970–2007* (annual figures)

	Australia	Austria	Belgium	Denmark	Finland	France	Germany	Ireland	Italy	Japan	Korea	Netherlands	Spain	Sweden	UK	US
1970	65.30	75.43	58.67	67.24	76.15	77.05	70.38	64.68	71.22		75.18	72.98	65.35	77.63	71.96	66.96
1971	66.21	75.08	60.83	68.40	76.58	76.61	70.87	65.83	73.55		74.54	74.10	65.17	78.35	71.29	66.97
1972	66.31	75.23	61.98	66.68	75.92	76.31	71.44	65.34	73.75		71.98	73.84	64.93	78.08	70.84	65.54
1973	67.53	74.85	62.55	65.80	76.33	75.70	72.13	65.14	73.37	64.64	76.60	74.14	64.49	76.80	70.53	65.49
1974	73.48	73.04	64.13	69.02	75.14	75.40	73.16	64.94	72.71	67.76	69.98	75.30	63.99	75.16	73.99	65.19
1975	72.71	72.80	65.59	69.45	75.15	75.41	72.85	65.77	75.90	71.17	72.04	77.24	64.68	77.79	76.57	61.90
1976	70.98	72.86	66.49	69.28	76.68	74.79	71.96	65.13	74.74	70.98	73.59	75.30	65.15	79.37	74.72	62.33
1977	70.89	72.38	66.71	69.77	75.59	74.63	72.29	63.79	75.86	71.59	72.81	75.33	65.21	79.96	71.25	62.67
1978	68.07	74.44	66.72	70.02	72.45	74.58	72.26	63.82	75.27	70.24	75.36	75.25	65.82	79.02	70.82	63.10
1979	66.94	71.81	66.35	70.71	70.32	74.93	72.02	64.62	74.02	68.93	80.05	76.13	65.81	76.98	71.30	63.04
1980	68.32	71.72	67.83	71.67	71.17	75.76	72.98	65.21	73.82	67.75	83.45	74.82	66.05	76.47	73.25	64.75
1981	68.71	72.57	67.23	70.75	72.92	76.38	72.97	64.94	75.24	63.89	82.89	72.56	66.72	76.16	74.00	64.19
1982	70.36	70.40	66.11	69.39	72.53	76.47	72.12	64.59	75.12	63.64	81.87	72.00	65.32	72.99	72.32	63.73
1983	65.88	68.40	65.58	69.02	70.94	75.70	70.63	63.56	75.82	64.27	84.75	70.04	65.61	70.55	70.34	63.19
1984	66.17	68.92	64.80	67.54	70.58	74.55	70.06	62.37	75.20	62.74	79.99	67.52	63.08	69.76	71.11	62.65
1985	66.59	68.68	64.14	67.49	71.69	73.40	69.52	61.33	74.15	61.45	79.21	66.86	61.72	70.33	70.07	63.56
1986	66.22	68.80	63.94	68.45	71.34	70.79	69.23	61.53	72.26	61.18	78.40	67.71	61.69	69.01	71.45	65.81
1987	63.88	68.96	64.00	70.36	72.40	69.83	70.25	61.23	72.04	60.39	77.84	69.09	61.78	69.47	73.22	64.62
1988	62.34	68.09	63.06	71.21	72.13	68.51	69.24	61.04	71.44	59.38	80.32	67.78	61.74	69.64	71.78	62.35
1989	62.93	67.86	62.85	69.54	71.73	67.25	67.98	60.89	71.04	58.91	83.05	65.69	61.76	70.61	73.61	63.68
1990	64.16	67.44	63.54	68.73	73.15	68.10	67.66	61.10	72.06	58.41	82.95	66.17	63.49	72.07	74.82	64.30
1991	64.41	67.76	65.27	67.97	76.14	68.25	68.39	62.30	72.56	58.56	84.32	66.61	65.04	72.84	75.51	64.34
1992	63.88	68.06	65.53	67.55	75.11	67.60	69.26	64.40	72.49	58.81	83.28	67.90	66.70	71.99	74.20	64.47
1993	63.32	68.50	65.72	67.43	70.40	67.68	69.47	63.22	70.87	59.41	84.18	68.44	66.23	68.92	72.36	65.32
1994	62.45	67.56	64.99	65.36	67.98	66.66	68.34	62.70	68.62	59.94	83.42	67.46	64.51	67.66	71.26	63.58
1995	62.86	66.69	64.78	65.67	66.83	66.42	68.21	62.97	66.92	60.25	81.82	67.08	63.34	64.85	71.24	63.01
1996	63.07	65.98	65.05	66.46	67.52	66.47	68.05	61.57	66.62	58.70	84.30	67.18	63.76	67.03	69.67	62.21
1997	62.20	66.11	64.90	66.11	66.01	65.76	67.21	59.89	66.93	58.51	81.87	66.40	64.25	66.55	69.71	61.98
1998	62.24	66.09	64.72	68.13	64.51	65.03	66.99	56.58	64.59	58.55	79.35	66.96	64.35	66.63	70.45	62.41
1999	61.81	66.17	65.84	68.21	64.67	65.43	67.48	55.13	64.78	58.01	75.39	67.25	64.60	65.23	71.43	63.06
2000	62.11	64.94	65.11	66.25	63.20	65.08	68.36	54.36	63.68	57.64	74.81	66.49	64.40	67.29	72.59	63.29
2001	60.95	64.29	66.24	67.48	62.93	65.17	67.88	53.10	63.26	57.96	76.18	66.65	63.66	69.33	73.30	63.69
2002	60.95	64.45	66.34	68.47	63.11	65.49	67.25	51.54	63.56	57.12	74.79	67.01	62.97	68.70	72.52	62.07
2003	60.13	64.11	65.89	68.78	64.35	65.48	67.08	52.37	64.10	56.41	75.46	67.16	62.69	68.01	72.31	62.89
2004	60.17	62.82	64.54	67.70	63.89	65.36	65.91	54.21	63.56	55.88	73.30	67.04	61.71	67.18	72.24	63.25
2005	59.64	62.75	64.11	67.74	65.28	65.37	65.03	55.95	64.47	55.68	74.17	65.28	60.87	67.09	72.07	60.33
2006	60.08	62.32	63.89	68.07	64.21	65.42	63.66	55.40	64.89	56.13	73.63	64.97	60.66	65.47	71.39	
2007	60.13	61.87	63.61	69.49	62.74	64.79	62.92	56.62	64.43		72.05	65.20	60.04	66.85	71.63	

Notes: * Japan 1973–2006; US 1970–2005

Data sources: Australia, Japan, Korea, (EU KLEMS database, November 2009); Austria, Belgium, Denmark, Finland, France, Germany, Ireland, Italy, Netherlands, Spain, Sweden, the UK (EU KLEMS database, November 2009: March 2011 update); US (EU KLEMS database, March 2008: SIC based data). Variables used: "Gross value added, price indices, 1995 = 100", VA (in this thesis renamed GVA) and "Labour compensation (in millions of local currency)", LAB.

Equation: $\frac{LAB}{GVA}$

Appendix 2 LAB/GVA adj: Labour compensation as percentage of estimated gross value added affected by depreciation of fixed assets valued at historical cost, 1970–2007 (Japan: 1973–2005; annual figures)

	Australia	Austria	Belgium	Denmark	Finland	France	Germany	Ireland	Italy	Japan	Korea	Netherlands	Spain	Sweden	UK	US
1970	64.13	74.09	57.62	66.04	74.80	75.68	69.13	63.53	69.96		73.84	71.69	64.18	76.25	70.68	65.77
1971	64.92	73.62	59.65	67.08	75.09	75.13	69.50	64.56	72.12		73.10	72.67	63.90	76.83	69.90	65.67
1972	65.06	73.80	60.81	65.42	74.48	74.87	70.09	64.11	72.36		70.62	72.44	63.70	76.60	69.50	64.30
1973	66.22	73.40	61.33	64.53	74.84	74.23	70.73	63.87	71.95	63.39	75.12	72.70	63.24	75.31	69.16	64.22
1974	71.61	71.18	62.50	67.26	73.22	73.48	71.30	63.28	70.85	66.03	68.19	73.38	62.35	73.25	72.10	63.52
1975	70.18	70.27	63.31	67.04	72.54	72.79	70.32	63.48	73.26	68.70	69.54	74.56	62.44	75.09	73.91	59.75
1976	68.54	70.35	64.20	66.90	74.04	72.21	69.49	62.89	72.16	68.53	71.05	72.70	62.90	76.63	72.15	60.18
1977	68.43	69.87	64.40	67.35	72.97	72.04	69.78	61.57	73.23	69.11	70.28	72.72	62.95	77.19	68.78	60.50
1978	65.72	71.87	64.42	67.61	69.94	72.00	69.77	61.62	72.67	67.81	72.76	72.65	63.55	76.30	68.38	60.92
1979	64.49	69.19	63.93	68.13	67.75	72.19	69.39	62.26	71.32	66.42	77.13	73.35	63.40	74.17	68.69	60.74
1980	65.56	68.82	65.09	68.77	68.30	72.70	70.02	62.57	70.83	65.01	80.07	71.80	63.38	73.38	70.29	62.13
1981	65.78	69.47	64.36	67.73	69.81	73.12	69.86	62.17	72.03	61.17	79.35	69.46	63.87	72.91	70.85	61.45
1982	67.25	67.29	63.19	66.32	69.32	73.09	68.93	61.73	71.80	60.83	78.25	68.82	62.43	69.76	69.13	60.91
1983	63.40	65.83	63.10	66.42	68.26	72.85	67.96	61.16	72.96	61.85	81.56	67.40	63.13	67.89	67.69	60.81
1984	64.10	66.76	62.77	65.42	68.36	72.22	67.87	60.42	72.84	60.78	77.49	65.41	61.10	67.57	68.88	60.69
1985	64.70	66.73	62.32	65.57	69.66	71.31	67.55	59.59	72.04	59.70	76.96	64.96	59.97	68.34	68.08	61.75
1986	64.42	66.93	62.20	66.59	69.40	68.87	67.35	59.86	70.30	59.51	76.27	65.87	60.01	67.14	69.51	64.02
1987	62.28	67.24	62.41	68.61	70.59	68.08	68.50	59.70	70.24	58.88	75.90	67.37	60.24	67.74	71.40	63.01
1988	60.78	66.39	61.48	69.43	70.32	66.80	67.51	59.51	69.65	57.89	78.31	66.08	60.20	67.90	69.98	60.79
1989	61.36	66.16	61.28	67.80	69.93	65.57	66.27	59.36	69.26	57.43	80.97	64.04	60.22	68.84	71.77	62.09
1990	62.55	65.75	61.94	67.00	71.31	66.39	65.96	59.57	70.26	56.95	80.87	64.51	61.90	70.26	72.94	62.68
1991	62.78	66.05	63.62	66.25	74.22	66.53	66.66	60.73	70.73	57.08	82.19	64.93	63.39	71.00	73.60	62.72
1992	62.44	66.52	64.05	66.02	73.41	66.07	67.69	62.94	70.85	57.48	81.40	66.36	65.19	70.36	72.52	63.01
1993	61.97	67.03	64.31	65.99	68.89	66.23	67.99	61.87	69.36	58.14	82.38	66.98	64.82	67.45	70.82	63.93
1994	61.20	66.21	63.69	64.05	66.62	65.33	66.97	61.44	67.25	58.74	81.75	66.11	63.22	66.31	69.83	62.31
1995	61.62	65.38	63.51	64.38	65.52	65.12	66.88	61.74	65.61	59.07	80.22	65.76	62.10	63.58	69.84	61.77
1996	61.97	64.83	63.92	65.30	66.35	65.31	66.86	60.50	65.45	57.68	82.82	66.01	62.65	65.86	68.46	61.12
1997	61.24	65.09	63.90	65.09	65.00	64.75	66.17	58.97	65.90	57.61	80.61	65.38	63.26	65.53	68.63	61.03
1998	61.42	65.22	63.86	67.23	63.66	64.17	66.11	55.83	63.73	57.78	78.30	66.08	63.50	65.75	69.52	61.58
1999	61.05	65.36	65.03	67.38	63.88	64.62	66.65	54.45	63.98	57.29	74.46	66.43	63.81	64.43	70.55	62.28
2000	61.30	64.10	64.27	65.39	62.39	64.24	67.48	53.66	62.85	56.89	73.85	65.63	63.57	66.42	71.66	62.47
2001	60.12	63.41	65.33	66.55	62.07	64.28	66.95	52.38	62.40	57.17	75.13	65.74	62.78	68.38	72.29	62.82
2002	60.10	63.55	65.41	67.51	62.23	64.57	66.31	50.82	62.67	56.32	73.74	66.08	62.09	67.74	71.51	61.20
2003	59.27	63.20	64.95	67.81	63.44	64.55	66.13	51.63	63.19	55.60	74.39	66.21	61.80	67.04	71.28	62.00
2004	59.22	61.83	63.52	66.63	62.88	64.33	64.87	53.35	62.55	55.00	72.15	65.98	60.73	66.12	71.10	62.25
2005	58.51	61.57	62.90	66.46	64.05	64.13	63.80	54.90	63.25	54.63	72.76	64.04	59.72	65.83	70.71	59.19

Data sources: EU KLEMS: Australia, Japan, Korea, (EU KLEMS database, November 2009); Austria, Belgium, Denmark, Finland, France, Germany, Ireland, Italy, Netherlands, Spain, Sweden, UK (EU KLEMS database, November 2009: March 2011 update); US (EU KLEMS database, March 2008: SIC based data). Variables used: "Gross value added, price indices, 1995 = 100", VA (in this thesis renamed GVA) and "Labour compensation (in millions of local currency)", LAB. BEA: gross value added of US corporations (US GVA corp.), depreciation of fixed assets of US corporations valued at current (US corp. sector depr. valued at current cost) and at historical (US corp. sector depr. valued at historical cost) cost (NIPA, National Income and Product Accounts Tables, 1.14, line 1–3; Fixed Assets Accounts Tables, 6.6, line 2). OECD statistics: compensation of employees in the US corporate sector, *US corp. sector comp.* (table 13, SS11_s12: SD1P).

Equation:

$$\frac{LAB}{GVA\ adj.} = \frac{LAB}{GVA} \times \frac{US\ corp.\ sector\ comp./US\ GVA\ corp. - US\ corp.\ depr.\ valued\ at\ historical\ cost}{US\ corp.\ sector\ comp./US\ GVA\ corp. - US\ corp.\ depr.\ valued\ at\ current\ cost}$$

Appendix 3 **Est. corp sector comp./NVA: Estimated compensation to employees in the corporate sector as percentage of net value added in the corporate sector with depreciation valued at historical cost, 1970–2005* (Japan: 1973–2005; annual figures)**

	Australia	Austria	Belgium	Denmark	Finland	France	Germany	Ireland	Italy	Japan	Korea	Netherlands	Spain	Sweden	UK	US
1970	65.30	75.43	58.67	67.24	76.15	77.05	70.38	64.68	71.22		75.18	72.98	65.35	77.63	71.96	66.96
1971	65.09	73.81	59.80	67.25	75.28	75.32	69.67	64.72	72.30		73.28	72.85	64.06	77.02	70.08	65.84
1972	66.66	75.62	62.30	67.03	76.32	76.71	71.81	65.68	74.14		72.36	74.22	65.27	78.49	71.21	65.80
1973	68.50	75.93	63.45	66.75	77.43	76.79	73.17	66.08	74.43	65.57	77.71	75.21	65.43	77.91	71.54	66.38
1974	76.10	75.64	66.42	71.48	77.82	78.09	75.77	67.26	75.30	70.17	72.47	77.99	66.27	77.84	76.62	67.51
1975	76.56	76.66	69.07	73.14	79.14	79.41	76.72	69.25	79.92	74.95	75.86	81.33	68.11	81.92	80.63	65.34
1976	74.47	76.44	69.76	72.69	80.45	78.47	75.50	68.34	78.41	74.47	77.21	79.00	68.35	83.27	78.40	65.40
1977	73.59	75.13	69.25	72.42	78.47	77.47	75.04	66.21	78.75	74.31	75.58	78.20	67.69	83.00	73.96	65.09
1978	70.59	77.20	69.19	72.62	75.13	77.34	74.94	66.19	78.06	72.84	78.15	78.04	68.26	81.95	73.44	65.41
1979	71.04	76.21	70.42	75.05	74.63	79.52	76.44	68.58	78.56	73.16	84.96	80.80	69.84	81.70	75.67	66.83
1980	71.38	74.93	70.88	74.88	74.36	79.16	76.25	68.13	77.13	70.79	87.19	78.18	69.01	79.90	76.54	67.63
1981	70.57	74.52	69.04	72.66	74.89	78.45	74.94	66.69	77.27	65.62	85.13	74.52	68.52	78.21	76.00	65.91
1982	73.42	73.47	68.99	72.41	75.69	79.80	75.26	67.40	78.39	66.41	85.43	75.13	68.16	76.17	75.47	66.44
1983	68.25	70.86	67.93	71.50	73.49	78.42	73.16	65.84	78.54	66.58	87.80	72.55	67.97	73.08	72.87	65.40
1984	68.26	71.09	66.84	69.67	72.80	76.90	72.27	64.33	77.57	64.72	82.51	69.65	65.07	71.96	73.35	64.55
1985	68.38	70.52	65.86	69.30	73.61	75.36	71.38	62.97	76.13	63.09	81.33	68.65	63.37	72.22	71.95	65.14
1986	66.89	69.50	64.59	69.14	72.06	71.51	69.93	62.15	72.99	61.79	79.19	68.39	62.31	69.71	72.17	66.28
1987	65.54	70.76	65.67	72.20	74.28	71.65	72.09	62.83	73.91	61.96	79.87	70.89	63.39	71.28	75.13	66.13
1988	65.85	71.93	66.61	75.22	76.19	72.37	73.15	64.48	75.47	62.72	84.85	71.60	65.22	73.57	75.82	65.67
1989	65.30	70.41	65.21	72.16	74.42	69.78	70.53	63.18	73.71	61.12	86.18	68.16	64.09	73.27	76.38	65.81
1990	66.54	69.94	65.90	71.28	75.87	70.63	70.17	63.37	74.74	60.58	86.03	68.63	65.85	74.74	77.60	66.55
1991	66.64	70.11	67.53	70.32	78.78	70.62	70.76	64.46	75.08	60.59	87.24	68.92	67.29	75.36	78.12	66.36
1992	66.35	70.69	68.07	70.16	78.02	70.22	71.94	66.89	75.29	61.09	86.51	70.52	69.29	74.78	77.07	66.67
1993	64.80	70.09	67.25	69.00	72.04	69.26	71.09	64.70	72.52	60.80	86.14	70.04	67.78	70.53	74.05	66.57
1994	64.68	69.97	67.31	67.69	70.40	69.04	70.77	64.93	71.07	62.08	86.40	69.86	66.81	70.08	73.80	65.55
1995	65.34	69.33	67.34	68.27	69.47	69.05	70.91	65.47	69.57	62.63	85.06	69.73	65.85	67.42	74.05	65.25
1996	65.84	68.87	67.90	69.37	70.48	69.38	71.03	64.27	69.54	61.27	87.99	70.12	66.55	69.97	72.73	64.70
1997	64.95	69.03	67.77	69.03	68.93	68.67	70.18	62.54	69.89	61.09	85.49	69.33	67.09	69.49	72.79	64.47
1998	66.13	70.22	68.76	72.38	68.54	69.09	71.18	60.11	68.62	62.21	84.30	71.14	68.37	70.79	74.85	65.99
1999	65.64	70.27	69.92	72.44	68.68	69.48	71.67	58.55	68.79	61.60	80.06	71.42	68.60	69.27	75.85	66.61
2000	67.02	70.08	70.27	71.49	68.21	70.23	73.77	58.67	68.72	62.20	80.73	71.76	69.50	72.61	78.34	67.97
2001	66.39	70.02	72.14	73.49	68.54	70.98	73.93	57.83	68.90	63.13	82.96	72.59	69.33	75.51	79.83	68.89
2002	67.05	70.90	72.98	75.32	69.43	72.04	73.99	56.70	69.92	62.84	82.28	73.72	69.27	75.58	79.79	67.96
2003	64.68	68.96	70.87	73.99	69.22	70.44	72.15	56.33	68.95	60.67	81.18	72.24	67.44	73.15	77.78	67.31
2004	62.60	65.36	67.15	70.43	66.47	68.00	68.57	56.39	66.12	58.14	76.26	69.75	64.20	69.89	75.16	65.47
2005	63.45	66.77	68.21	72.07	69.46	69.55	69.19	59.53	68.59	59.24	78.91	69.46	64.76	71.39	76.68	63.84

Data sources: EU KLEMS: Australia, Japan, Korea, (EU KLEMS database, November 2009); Austria, Belgium, Denmark, Finland, France, Germany, Ireland, Italy, Netherlands, Spain, Sweden, UK (EU KLEMS database, November 2009: March 2011 update); US (EU KLEMS database, March 2008: SIC based data). Variables used: "Gross value added, price indices, 1995 = 100", VA (in this thesis renamed GVA) and "Labour compensation (in millions of local currency)", LAB. BEA: gross value added in US corporate sector (US GVA corp. sector), depreciation of fixed assets of US corporations valued at current (US corp. sector depr. valued at current cost) and at historical (US corp. sector depr. valued at historical cost) cost (NIPA, National Income and Product Accounts Tables, 1.14, line 1–3; Fixed Assets Accounts Tables, 6.6, line 2). OECD statistics: compensation of employees in the US corporate sector, *US corp. sector comp.* (table 13, SS11_s12: SD1P).

Equation:

$$\frac{est.corp.sector\ comp.}{NVA} = \frac{LAB}{GVA} \times \frac{US\ corp.sector\ comp./US\ GVA\ corp. - US\ corp.depr.valued\ at\ historical\ cost}{US\ LAB/US\ GVA}$$

Appendix 4 **Corp. sector comp./NVA at current prices: Compensation to employees in the corporate sector as percentage of net value added in the corporate sector with depreciation valued at current cost (annual figures)**

	Austria	Belgium	Denmark	Finland	France	Germany	Italy	Netherlands	Spain	Sweden	UK	US
1970												73.56
1971												72.44
1972												72.37
1973												73.04
1974												74.75
1975				81.81								73.04
1976				83.31								73.09
1977				83.34								72.75
1978				78.27	83.43							73.10
1979				74.61	83.33							74.84
1980				76.74	84.63							76.05
1981				78.84	84.99							74.28
1982				77.76	85.29							75.01
1983				76.96	84.19							73.33
1984				76.59	82.26							71.90
1985				78.69	80.90							72.34
1986				79.08	76.91							73.51
1987				78.38	76.44							73.18
1988				78.08	73.82							72.68
1989				78.49	72.70							72.83
1990				82.42	73.81		66.38	71.46			73.09	73.65
1991				91.10	74.65		67.85	71.84			75.44	73.46
1992				87.70	74.76		68.39	73.85			76.09	73.59
1993				79.84	75.07		67.41	73.72			72.81	73.40
1994				74.05	74.79		65.09	71.47			70.52	72.17
1995	73.99	76.02	73.79	68.59	74.58	77.83	62.11	69.92		67.73	69.73	71.81
1996	72.79	77.42	74.84	70.03	75.70	77.28	61.71	69.83		71.18	67.32	71.05
1997	71.68	77.24	73.93	67.99	74.71	75.32	62.84	69.25		70.20	66.81	70.65
1998	71.47	76.87	77.10	65.97	73.48	74.30	60.39	70.70		70.67	69.28	72.15
1999	71.70	78.89	76.87	66.29	74.42	74.89	60.97	71.54		69.23	70.58	72.76
2000	70.49	77.91	72.58	64.09	74.21	76.61	59.87	70.83	74.18	72.83	72.76	74.29
2001	71.19	80.10	75.87	64.55	75.35	75.35	59.32	71.31	73.69	76.73	73.54	75.36
2002	70.64	79.12	77.17	64.63	76.17	74.47	60.32	71.19	73.65	76.01	72.14	74.36
2003	71.20	78.24	77.22	66.91	75.84	73.84	61.33	70.88	74.05	73.91	71.12	73.67
2004	69.71	75.81	75.70	65.84	75.62	71.59	61.53	70.39	73.75	71.36	70.17	71.77
2005	69.01	74.81	75.30	67.91	75.92	70.38	62.60	67.58	74.99	70.99	70.14	70.21
2006	67.38	75.22	74.91	67.02	76.46	68.33	63.74	67.67	75.46	68.58	68.96	69.06
2007	66.79	75.06	77.77	64.33	75.49	66.84	63.22	67.88	75.57	70.32	68.76	70.99
2008	68.54	77.14	79.24	67.98	76.72	69.01	65.38	68.48	74.93	71.28	68.60	72.37
2009	74.21	80.31	84.05	76.59	78.60	73.45	68.22	71.44	73.64	75.28	70.02	71.23
2010	72.26	78.47	75.49	73.50	78.34	70.39	67.57	68.36	73.32	70.44	70.28	67.35

Data sources: OECD statistics: gross value added in the corporate sector (corp. sector GVA); compensation of employees in the corporate sector (corp. sector comp.); consumption of fixed capital valued at current cost (table 13, SS11_s12: NFB1GR; SD1P; NFK1MP).

Equation:

$$\frac{corp.sector\ comp.}{NVA\ at\ current\ prices} = \frac{corp.sector\ comp.}{corp.sector\ GVA - consumption\ of\ fixed\ capital\ valued\ at\ current\ cost}$$

Appendix 5 Corp. sector comp./est. NVA at historical prices: Compensation to employees in the corporate sector as percentage of estimated net value added in the corporate sector with depreciation valued at historical cost (annual figures)

	Austria	Belgium	Denmark	Finland	France	Germany	Italy	Netherlands	Spain	Sweden	UK	US
1970												72.25
1971												71.04
1972												71.00
1973												71.62
1974												72.84
1975				78.97								70.50
1976				80.44								70.57
1977				80.45								70.23
1978				75.57	80.55							70.57
1979				71.88	80.29							72.11
1980				73.64	81.21							72.97
1981				75.47	81.36							71.11
1982				74.32	81.52							71.69
1983				74.06	81.02							70.56
1984				74.19	79.68							69.64
1985				76.45	78.60							70.29
1986				76.94	74.82							71.51
1987				76.42	74.53							71.35
1988				76.12	71.97							70.86
1989				76.53	70.88							71.01
1990				80.36	71.96		64.72	69.66			71.25	71.80
1991				88.80	72.77		66.14	70.02			73.53	71.60
1992				85.72	73.07		66.84	72.18			74.37	71.93
1993				78.13	73.47		65.97	72.14			71.26	71.83
1994				72.57	73.29		63.78	70.04			69.11	70.73
1995	72.53	74.53	72.34	67.25	73.11	76.31	60.89	68.55		66.40	68.36	70.40
1996	71.52	76.07	73.53	68.81	74.38	75.93	60.63	68.61		69.94	66.14	69.81
1997	70.58	76.06	72.79	66.94	73.56	74.16	61.87	68.18		69.12	65.78	69.56
1998	70.53	75.86	76.08	65.10	72.51	73.31	59.59	69.77		69.73	68.36	71.20
1999	70.82	77.92	75.93	65.47	73.50	73.97	60.22	70.66		68.38	69.71	71.87
2000	69.58	76.90	71.65	63.26	73.25	75.62	59.09	69.92	73.22	71.89	71.82	73.33
2001	70.22	79.00	74.84	63.67	74.32	74.32	58.51	70.33	72.68	75.68	72.53	74.33
2002	69.65	78.01	76.09	63.73	75.10	73.43	59.47	70.19	72.63	74.95	71.13	73.32
2003	70.19	77.13	76.12	65.96	74.76	72.79	60.46	69.87	73.00	72.86	70.11	72.62
2004	68.60	74.61	74.50	64.80	74.42	70.45	60.56	69.27	72.58	70.23	69.06	70.64
2005	67.71	73.40	73.87	66.63	74.49	69.05	61.42	66.31	73.57	69.65	68.82	68.88
2006	65.92	73.59	73.29	65.56	74.80	66.85	62.36	66.20	73.83	67.10	67.47	67.56
2007	65.31	73.39	76.04	62.90	73.82	65.36	61.82	66.37	73.90	68.76	67.23	69.41
2008	66.83	75.21	77.26	66.28	74.80	67.28	63.74	66.76	73.06	69.50	66.88	70.56
2009	72.42	78.37	82.02	74.74	76.70	71.67	66.57	69.71	71.86	73.46	68.33	69.51
2010	70.73	76.80	73.89	71.95	76.68	68.90	66.14	66.91	71.77	68.95	68.80	65.92

Data sources: OECD statistics: gross value added in the corporate sector (corp. sector GVA); compensation of employees in the corporate sector (corp. sector comp.); consumption of fixed capital valued at current cost (table 13. SS11_s12: NFB1GR; SD1P; NFK1MP). BEA: gross value added in US corporate sector (US GVA corp.); depreciation of fixed assets of US corporations valued at current (US corp. sector depr. valued at current cost) and at historical (US corp. sector depr. valued at historical cost) cost (NIPA, National Income and Product Accounts Tables, 1.14, line 1–3; Fixed Assets Accounts Tables, 6.6, line 2).

Equation:

$$\frac{corp.sector\ comp.}{est.NVA\ at\ historical\ prices} = \frac{corp.sector\ comp.}{NVA\ at\ current\ prices \times (US\ GVA\ corp.\ sector - US\ corp.\ sector\ depr.valued\ at\ historical\ cost/US\ GVA\ corp.\ sector - US\ corp.\ sector\ depr.valued\ at\ current\ cost)}$$

Appendix 6 Summary of appendix 1–5 with percentage changes from first to last year in series

	1970–2005[1]			2005–2007[2]	1970–2007[3]	1970/1975/1978/1990/1995/2000–2007[4]		2007–2010	
	LAB/GVA	LAB/GVA adj.	est. corp. sector comp./NVA	LAB/GVA	LAB/GVA	corp. sector comp./NVA at current prices	corp. sector comp./est. NVA at historical prices[5]	corp. sector comp./NVA at current prices	corp. sector comp./est. NVA at historical prices[5]
Australia	-8.66	-8.76	-2.82	0.82	-7.91				
Austria	-16.81	-16.90	-11.48	-1.41	-17.98	-9.73	-9.96	8.19	8.31
Belgium	9.28	9.16	16.27	-0.78	8.43	-1.26	-1.52	4.54	4.64
Denmark	0.74	0.63	7.19	2.58	3.35	5.39	5.12	-2.93	-2.83
Finland	-14.28	-14.38	-8.80	-3.90	-17.62	-21.37	-20.35	14.27	14.39
France	-15.16	-15.26	-9.74	-0.88	-15.91	-9.51	-8.36	3.77	3.88
Germany	-7.61	-7.71	-1.70	-3.25	-10.61	-14.12	-14.35	5.31	5.42
Ireland	-13.49	-13.59	-7.95	1.19	-12.46				
Italy	-9.49	-9.59	-3.70	-0.06	-9.54	-4.76	-4.48	6.87	6.98
Japan	-13.87	-13.82	-9.66	0.81	-13.17				
Korea	-1.35	-1.46	4.96	-2.85	-4.16				
Netherlands	-10.56	-10.66	-4.84	-0.13	-10.67	-5.01	-4.72	0.71	0.81
Spain	-6.85	-6.96	-0.90	-1.37	-8.13	1.88	0.92	-2.98	-2.88
Sweden	-13.57	-13.67	-8.04	-0.36	-13.88	3.82	3.55	0.17	0.27
UK	0.15	0.04	6.56	-0.61	-0.45	-5.92	-5.64	2.22	2.33
US	-9.90	-10.00	-4.66			-3.49	-3.92	-5.13	-5.03
Average	-8.21	-8.31	-2.46	-0.68	-8.71	-5.34	-5.31	2.92	3.03
Median	-9.69	-9.79	-4.18	-0.61	-10.61	-4.89	-4.60	3.00	3.11

Notes: [1] Japan: 1973–2005 [2] Japan: 2005–2006 [3] Japan: 1973–2006 [4] First year: US 1970; Finland 1975; France 1978; Italy, Netherlands, UK 1990; Austria, Belgium, Denmark, Germany, Sweden 1990; Spain 2000 [5] US: actual NVA at historical prices

Ratios: LAB/GVA (labour compensation as % of gross value added); LAB/GVA adj. (labour compensation as % of estimated gross value added adjusted to depreciation of fixed assets at historical prices); est. corp. sector comp./NVA (estimated compensation of employees as % of net value added in the corporate sector); corp. sector comp./NVA at current prices (compensation to employees in the corporate sector divided by net value added valued at current prices); corp. sector comp./ NVA at historical prices (compensation to employees in the corporate sector divided by net value added valued at estimated historical prices). Corp. sector comp. and NVA from OECD statistics; depreciation of fixed assets of US corporations from NIPA.

Source: Own calculations based on data from appendix 1–5

Appendix 7 Changes in the ratio labour compensation to property income 1970–2005 and changes in the average rate of GDP per capita growth from the period 1950–1970 to 1970–2005

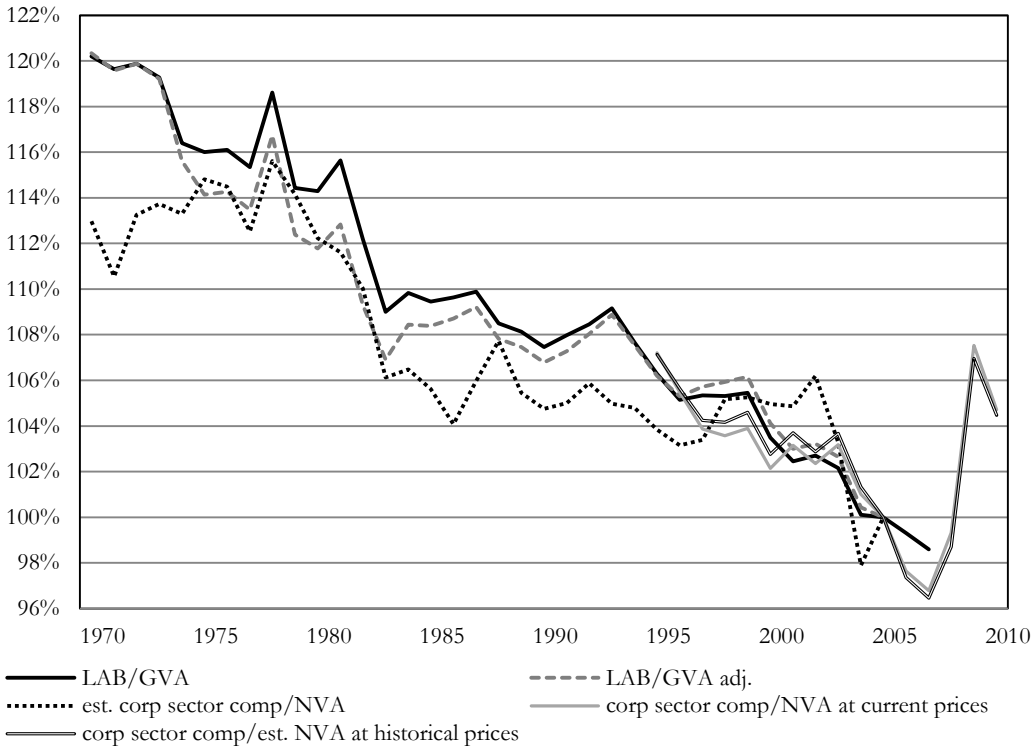
	% change in ratios of labour compensation to property income 1970–2005[1]			Average yearly GDP per capita growth (Maddison)			
	LAB/GVA	LAB/GVA adj.	est. corp. sector comp./NVA	Period 1 (1950–1970)[2]	Period 2 (1970–2005)[1]	Period 2 minus period 1	% change from period 1 to period 2
Australia	-8.66	-8.76	-2.82	2.58	1.99	-0.59	-22.69
Austria	-16.81	-16.90	-11.48	5.22	2.37	-2.85	-54.58
Belgium	9.28	9.16	16.27	3.56	2.14	-1.42	-39.90
Denmark	0.74	0.63	7.19	3.22	1.84	-1.39	-43.06
Finland	-14.28	-14.38	-8.80	4.36	2.42	-1.94	-44.48
France	-15.16	-15.26	-9.74	4.24	1.83	-2.41	-56.78
Germany	-7.61	-7.71	-1.70	5.55	1.68	-3.87	-69.76
Ireland	-13.49	-13.59	-7.95	3.13	4.25	1.13	35.99
Italy	-9.49	-9.59	-3.70	5.52	2.00	-3.52	-63.81
Japan	-13.87	-13.82	-9.66	8.45	2.06	-6.38	-75.58
Korea	-1.35	-1.46	4.96	5.02	6.15	1.12	22.36
Netherlands	-10.56	-10.66	-4.84	3.70	1.88	-1.83	-49.37
Spain	-6.85	-6.96	-0.90	5.74	3.07	-2.67	-46.54
Sweden	-13.57	-13.67	-8.04	3.50	1.64	-1.86	-53.15
UK	0.15	0.04	6.56	2.34	2.13	-0.21	-8.93
US	-9.90	-10.00	-4.66	2.41	2.04	-0.37	-15.29
Average	-8.21	-8.31	-2.46	4.28	2.47	-1.82	-36.60
Median	-9.69	-9.79	-4.18	3.97	2.05	-1.85	-45.51

Notes: [1] Japan: 1973–2005. [2] Japan: 2005–2006.

Ratios: LAB/GVA (labour compensation as % of gross value added); LAB/GVA adj. (labour compensation as % of estimated gross value added adjusted to depreciation of fixed assets at historical prices); est. corp. sector comp./NVA (estimated compensation of employees as % of net value added in the corporate sector); corp. sector comp./NVA at current prices (compensation to employees in the corporate sector divided by net value added valued at current prices); corp. sector comp./ NVA at historical prices (compensation to employees in the corporate sector divided by net value added valued at estimated historical prices). Corp. sector comp. and NVA from OECD statistics; depreciation of fixed assets of US corporations from NIPA.

Source: Own calculations based on data from Appendix 1–3; Maddison (2010)

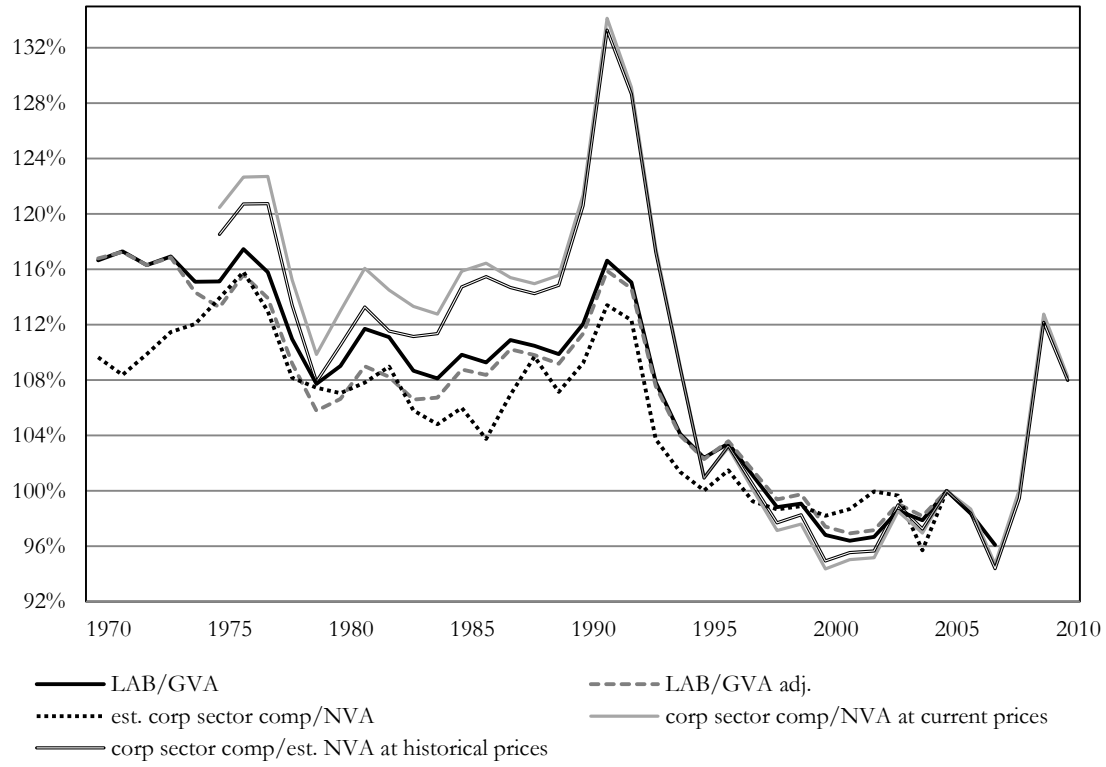
Appendix 8
Distribution between labour compensation and property income in Austria, 1970–2010 (% of 2005 shares, annual figures)



Appendix 8 Distribution between labour compensation and property income in Austria, 1970–2010. Five ratios: LAB/GVA (labour compensation as % of gross value added); LAB/GVA adj. (labour compensation as % of estimated gross value added adjusted to depreciation of fixed assets at historical prices); est. corp. sector comp./NVA (estimated compensation of employees as % of net value added in the corporate sector); corp. sector comp./NVA at current prices (compensation to employees in the corporate sector divided by net value added valued at current prices); corp. sector comp./est. NVA at historical prices (compensation to employees in the corporate sector divided by net value added valued at estimated historical prices).

Source: Own calculations based on LAB and GVA from the EU KLEMS database, November 2009; corp. sector comp. and NVA from OECD statistics; depreciation of fixed assets of US corporations from NIPA. See appendix 1–6 for full references and equations.

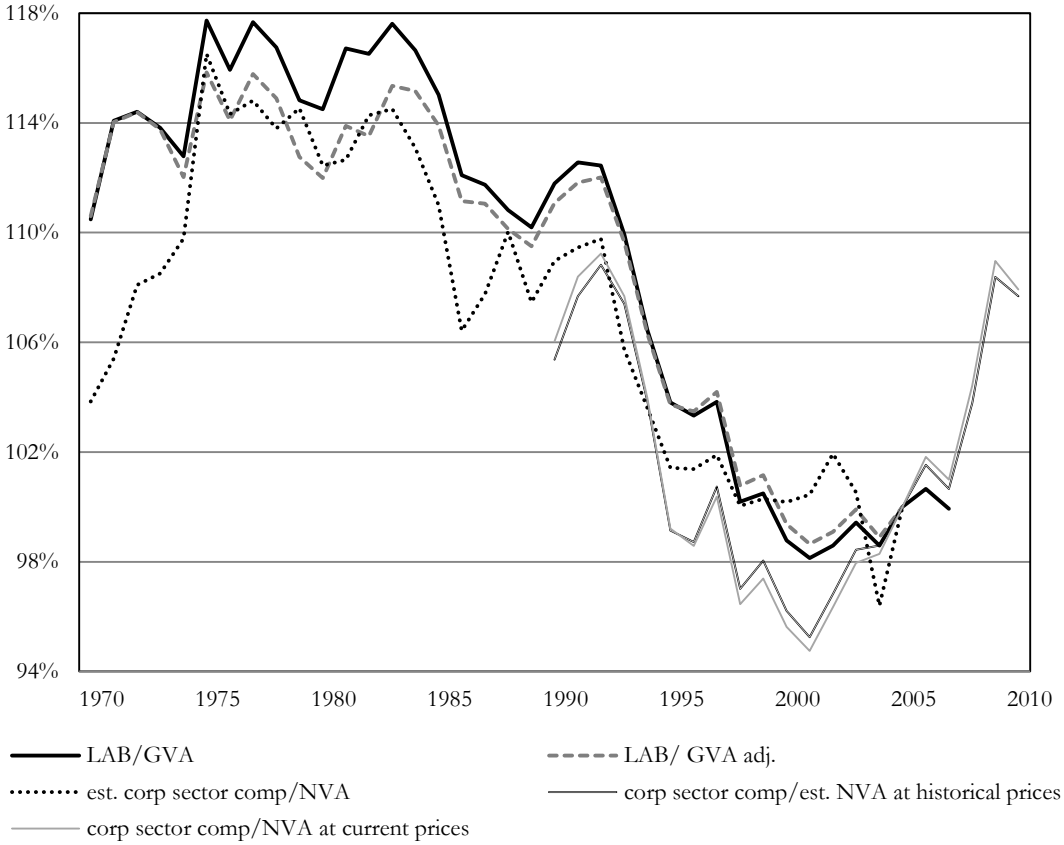
Appendix 9
Distribution between labour compensation and property income in Finland, 1970–2010 (% of 2005 shares, annual figures)



Appendix 9 Distribution between labour compensation and property income in Finland, 1970–2010. Five ratios: LAB/GVA (labour compensation as % of gross value added); LAB/GVA adj. (labour compensation as % of estimated gross value added adjusted to depreciation of fixed assets at historical prices); est. corp. sector comp./NVA (estimated compensation of employees as % of net value added in the corporate sector); corp. sector comp./NVA at current prices (compensation to employees in the corporate sector divided by net value added valued at current prices); corp. sector comp./est. NVA at historical prices (compensation to employees in the corporate sector divided by net value added valued at estimated historical prices).

Source: Own calculations based on LAB and GVA from the EU KLEMS database, November 2009; corp. sector comp. and NVA from OECD statistics; depreciation of fixed assets of US corporations from NIPA. See appendix 1–6 for full references and equations.

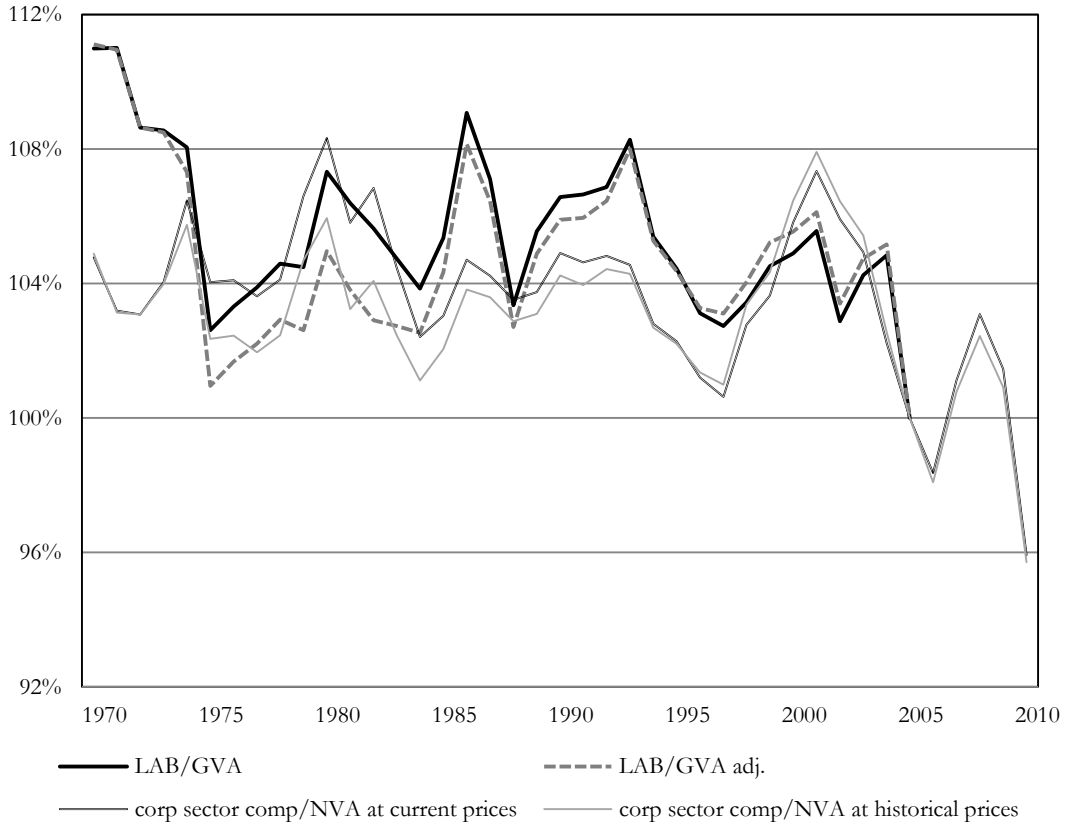
Appendix 10
Distribution between labour compensation and property income in Italy, 1970–2010 (% of 2005 shares, annual figures)



Appendix 10 Distribution between labour compensation and property income in Italy, 1970–2010. Five ratios: LAB/GVA (labour compensation as % of gross value added); LAB/GVA adj. (labour compensation as % of estimated gross value added adjusted to depreciation of fixed assets at historical prices); est. corp. sector comp./NVA (estimated compensation of employees as % of net value added in the corporate sector); corp. sector comp./NVA at current prices (compensation to employees in the corporate sector divided by net value added valued at current prices); corp. sector comp./est. NVA at historical prices (compensation to employees in the corporate sector divided by net value added valued at estimated historical prices).

Source: Own calculations based on LAB and GVA from the EU KLEMS database, November 2009; corp. sector comp. and NVA from OECD statistics; depreciation of fixed assets of US corporations from NIPA. See appendix 1–6 for full references and equations.

Appendix 11
Distribution between labour compensation and property income in the United States, 1970–2010 (% of 2005 shares, annual figures)



Appendix 11 Distribution between labour compensation and property income in the United States, 1970–2010. Four ratios: LAB/GVA (labour compensation as % of gross value added); LAB/GVA adj. (labour compensation as % of estimated gross value added adjusted to depreciation of fixed assets at historical prices); corp. sector comp./NVA at current prices (compensation to employees in the corporate sector divided by net value added valued at current prices); corp. sector comp./ NVA at historical prices (compensation to employees in the corporate sector divided by net value added valued at estimated historical prices).

Source: Own calculations based on LAB and GVA from the EU KLEMS database, March 2008; corp. sector comp. and NVA from OECD statistics; depreciation of fixed assets of US corporations from NIPA. See appendix 1, 2, 4 and 5 for full references and equations.