International Review of Applied Economics
Vol. 26, No. 4, July 2012, 465–487

Financialization and the rentier income share – evidence from the USA and Germany

Petra Duenhaupt*

Macroeconomic Policy Institute (IMK), Düsseldorf, Germany

(*Received 24 August 2010; final version received 6 June 2011*)

During the past two decades, there has been a shift of significance from the real to the financial sector. In the course of (financial) globalization, measures of liberalization and deregulation have contributed to a strengthening of financial capital. The concept of shareholder value orientation has become more powerful, capital income has increased tremendously, while real wages have stagnated. Most industrial countries have experienced a decline in the share of labor income. Based on a review of empirics and literature, this paper seeks to determine who gained from the fall in the labor share of income in the USA and Germany, respectively. If financialization is indeed responsible for the decline, rentiers should be the beneficiaries. In order to identify the relevant effects, the profit share of the two countries under observation is split between the share of retained earnings and the share of net property income (= rentiers' income) using a modification of the approach chosen by Epstein and Jayadev (2005). The evidence presented shows that the development of the rentier income share indeed corresponds quite well with the stages of development of financialization in the two different countries: in the US, where the important shift towards financialization occurred in the early 1980s, the rentiers' share of income shows a corresponding leap upwards exactly at that time and remains on a higher level until the end of the observation period. In Germany, the process of financialization started much later – in the beginning of the 1990s – and followed a much more gradual transition, which is perfectly mirrored by the development of income shares: from the 1990s onwards, the rentiers' income share gradually increased over time.

Keywords: financialization; income distribution; rentier income share
JEL Classifications: E25, E44

Introduction

> However, even among economists highly critical of neoliberal globalization, there is to date no consensus on the appropriate definition of financialization, never mind agreement as to the logic or laws of motion – or even the existence – of a new system of rentier or finance capitalism. (Crotty 2002, 13)

> Financialization means the increasing role of financial motives, financial markets, financial actors and financial institutions in the operation of the domestic and international economies. (Epstein 2005, 3)

*Email: petra-duenhaupt@boeckler.de

ISSN 0269-2171 print/ISSN 1465-3486 online

http://dx.doi.org/10.1080/02692171.2011.595705

The dynamic development of financial markets has aroused lots of interest in the economics profession even before the recent turmoil in the financial sector. This interest is only too understandable, as in the last decades the role of finance for the overall economy seems to have changed considerably. The creation of new financial instruments, the lifting of capital controls and the development of new communication technologies have all contributed to an increasing importance of finance, but also to an increase in financial fragility. Quite obviously, financial factors influence distribution, consumption, investment and growth at a progressive rate.

The changing role of the financial sector for the real sectors of the economy, as well as the changes within the financial sector itself, have been referred to by some authors as 'financialization'. Whereas there is certainly agreement that there is something like financialization out there, there is not much agreement on the exact definition, let alone its effects on the real economy, as can be seen by the quotes mentioned above. While Epstein's definition seems rather broad, Crotty, on the other hand, seems to exaggerate the confusion. Krippner (2005) distinguishes five different areas in the academic literature under which she summarizes the main stances: shareholder value orientation (Froud et al. 2000; Lazonick and O'Sullivan 2000; Williams 2000; Stockhammer 2006), finance via capital markets rather than banks (Philips 2002), the (re)emergence of a 'rentier' class (Duménil and Lévy 2002; Epstein and Jayadev 2005; Greider 1997), financial trading linked to new financial instruments (Philips 1996) and the supremacy of profit-making via financial rather than real channels (Krippner 2005). Besides these main points mentioned above, there are also some striking developments that coincide with financialization: central bank policy that is devoted mainly to price stability, the tremendous increase in national and cross-border financial capital flows owing to the lifting of capital controls, the increase in household indebtedness leading to consumption-driven growth as well as the alignment of top managerial pay to stock price movements via share options (Skott and Ryoo 2008). This paper stresses one overarching aspect of financialization, namely the deregulation and liberalization of formerly highly regulated financial markets as a prerequisite for the occurrence of the aforementioned processes summarized under the label financialization.

The fall in the labor share of income has also attracted a lot of attention in recent years. Not only the public but also academia and policy makers couldn't help but wonder why the share of labor in national income declined steadily,[1] although conventional theory has long suggested that the labor share is roughly constant over the long term.[2] Moreover, the fall was more distinctive in continental Europe, especially Germany, than, for example, in the US.[3] Figure 1 presents the share of wages in net national income for the US and Germany, 1970 until 2008. Apart from cyclical fluctuations, the wage share in the US showed a moderate decline, but was relatively stable compared with the German wage share, which declined tremendously from 62% to 56% of net national income since 2000.

The shift in the functional income distribution is stressed even more, if one uses the adjusted wage share instead of the ordinary wage share, which does not take into account changes in the composition of employment with regard to employees and the number of self-employed and therefore renders an inaccurate picture of the labor income received by the average employee. Figure 2 displays the adjusted wage shares for the same countries for the same period. In this graph, both wage shares declined since the 1980s. However, the decline was more distinctive in Germany with a drop of more than 8 percentage points, whereas the US share

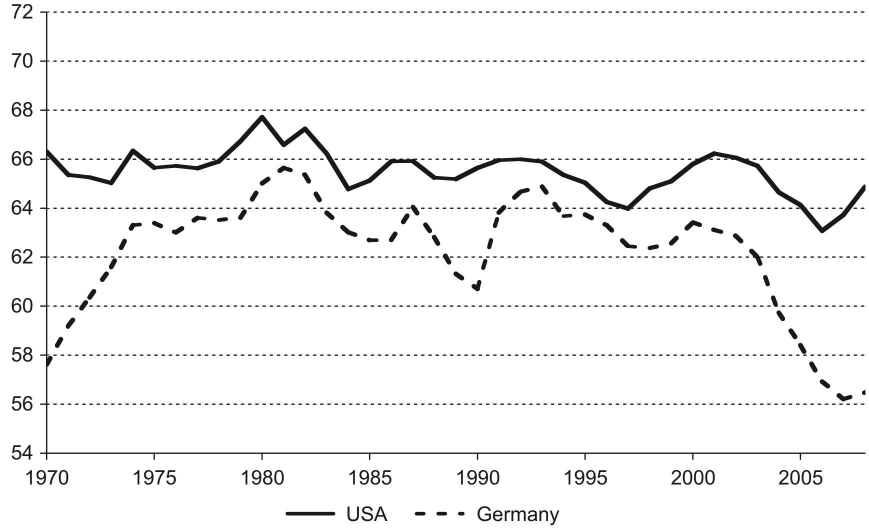

Figure 1. Wage share (compensation of employees as a percentage of net national income); USA and Germany, 1970–2008.
Source: BEA, NIPA Tables; Federal Statistical Office, Germany, National Accounts; author's calculation.

decreased in the same period by only 4 points. Although for some purposes the adjusted wage share and its complement, the adjusted profit share, are preferable measures of functional income distribution, in the rest of the paper only the ordinary wage share will be used as the necessary data to calculate the adjusted shares, for the shares of interest here are not available and would be difficult to interpret.

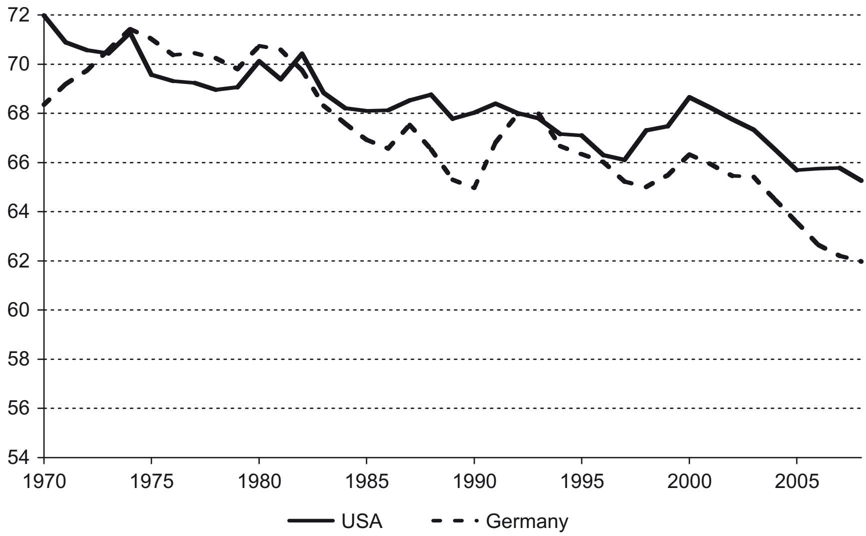

Figure 2. Adjusted wage share (percentage of GDP at current factor cost); USA and Germany, 1970–2008.
Source: AMECO database; author's calculation.

Despite the recent interest in both phenomena, financialization on the one hand and the constant decline of the wage share on the other hand, there is only limited empirical work on the influence of financialization on income distribution. Most research rather focuses on the impact of globalization, technological change, and weakening of labor market institutions.[4]

However, it seems quite plausible that there is indeed a link between financialization and the distribution of income between labor and capital. In particular, the concept of shareholder value seems to be significant, as it changes management's attention from traditional long-term objectives of a firm such as job protection or 'empire building' towards short-term economic indicators, because remuneration is more and more aligned to stock price movements via share options. Besides those variable remunerations schemes, managerial pay also became exorbitant. On the flipside, ordinary employees do not only have to bear with a 'downsize and distribute' strategy of firms trying to become more and more efficient and lean, but also have to see their share of income shrink as real wages decline.

Bearing all those facets of financialization in mind, it would stand to reason that financialization has an influence on the distribution of income. To be more specific, one would expect that the increase in financial payments goes at the expense of wages. It is the aim of this paper to determine who gained from the fall in the labor share of income in the USA and Germany, respectively. If financialization is indeed responsible for the decline, rentiers should be the beneficiaries; if not, firms' retained earnings should have benefited. In order to identify the relevant effects, the profit share of the two countries under observation is split up between the share of retained earnings and the share of net property income (= rentiers' income) using a modification of the approach chosen by Epstein and Jayadev (2005). Additionally, with the help of a sectoral disaggregation of the approach chosen, the paper will try to shed light on the paradoxical comparative development of the wage share in Germany and the US: if wage shares differ significantly in the financial as compared to the nonfinancial sector, the development of the wage share might be attributable to a sectoral shift rather than to changes in distribution within sectors.

Therefore, the paper is organized as follows: Section 2 presents facts about the deregulation and liberalization of financial markets as a prerequisite for the process of financialization. The third section elaborates on potential mechanisms, owing to which financialization might influence the functional income distribution. Section 4 presents a short review of the empirical literature on financialization and income distribution. Section 5 focuses on the most important and comprehensive empirical study by Epstein and Jayadev (2005) and discusses their approach from different angles. In Section 6 a consistent alternative approach to calculate rentier income shares is presented, which allows us to assess whether increasing shares accruing to 'rentiers' are at the expense of corporate profits or of wages. This alternative approach is then applied to the cases of Germany and the US. The seventh and final section presents the study's main conclusions and indicates some directions for future research.

This paper focuses on Germany and the USA for several reasons. First of all, the aim is to find evidence of the effects financialization has on the functional income distribution in Germany. In order to do this properly, it is important to define a yardstick for comparison. The US is particularly interesting in this respect, as it seems to be the economy where financialization is most developed, whereas financialization in Germany is a rather new phenomenon. In contrast to other potentially influencing factors on distribution, such as globalization, the institutional and regulatory changes that spurred financialization started much later in Germany than in the USA. This should be visible in the data. Additionally, Germany and the USA are two of the few countries for which the relevant data on functional income distribution were available in an internationally comparable form and for a sufficiently long period of time.

Deregulation of financial markets leading to financialization in the USA and Germany

As already mentioned in the introduction, the deregulation of formerly highly regulated financial markets, as a consequence of the great depression in the 1930s and after the Second World War (Obstfeld 1998), can be seen as a prerequisite for the developments summarized under the label financialization. This process of deregulation evolved in many different steps and it is barely possible to identify the relative contribution of each of these steps to financialization.

There is widespread agreement in the literature that the first deregulatory steps in the US already occurred in the 1970s and by the early 1980s there was a deregulated financial environment that led to the rise of the institutional investor as a holder of corporate stocks, which already resulted in some kind of shareholder value orientation (Lazonick and O'Sullivan 2000).

The collapse of the Bretton Woods system of fixed exchange rates in 1973 can be seen as the starting point of a wave of deregulation and liberalization measures. However, with the introduction of fluctuating exchange rates a growing need to hedge against risks emerged. This was done with the help of new financial instruments in the form of derivatives such as currency swaps, options and futures contracts. For the functioning of these risk-hedging instruments, the abolishment of regulatory barriers was essential as it provided an opportunity to spread the risk. All this demanded a restructuring of financial institutions (Block 2002). The breakdown of the Bretton Woods system of fixed exchange rates almost coincided with the oil price shocks in the 1970s, which also put pressure on the existing regulatory framework that was not prepared to deal with high inflation, and also the Latin American debt crisis in the 1980s challenged the existing system (Crotty 2002).

In the early 1980s, the banking sector was altered by measures of deregulation. The five major changes were the expansion of bank powers, a reduction in reserve requirements, the formalization and tightening of capital requirements, the deregulation of deposit accounts and the liberalization of the rules and policies regarding geographic diversification (Berger, Kashyap, and Scalise 1995).

The rise of the shareholder value movement started in the 1970s and was fostered on the theoretical grounds of agency theorists. In practice, it was fostered by the rise of the institutional investor (mutual and pension funds, life insurance companies, investment companies) that benefited from the lifting of legal restrictions that previously limited the extent to which corporate equity could be added to their portfolios. The concentration of stockholdings in the hands of institutional investors favored not only the takeover movement, but also pressured companies to increase the return from stocks. A major step of deregulation supporting the shareholder value movement was the Employee Retirement Income Security Act (ERISA) of 1974 which, by 1978, authorized pension funds and insurance companies to 'invest substantial proportions of their portfolios in corporate equities and other risky securities such as "junk bonds", [which were a major instrument of the takeover movement] and venture funds rather than just in high-grade corporate and government securities' (Lazonick and O'Sullivan 2000, 17)

In Germany, the important deregulatory steps that paved the way to financialization occurred at a significantly later point in time, namely at the beginning of the 1990s and gradually proceeded until the current financial crisis (Hein and van Treeck 2008a). In 1990, the futures market was introduced and capital investment companies received the limited right to engage in options trading. In addition, in 1991, the tax on stock market transactions was abolished. These measures were included in a law for the explicit advancement of financial markets (1. Finanz marktförderungsgesetz). In 1994 a second amendment to the law (2. Finanz marktförderungsgesetz) was enacted legalizing money market funds. Another important step occurred in 1998 when share buybacks and stock options were legalized as a third amendment to the law. As late as 2004, hedge funds as well as derivative trading and leveraging for investment funds were legalized. In 2007, REITs[5] were finally allowed. Throughout the entire time since the mid-1990s, the process of financialization was enhanced and supported by the abolishment or cutting of relevant taxes (1997: wealth tax abolished; 2000 and 2008: reduction of corporate tax rates and capital income taxes; 2002: tax on realized capital gains abolished for corporations and reduced for private households; 2008: tax relief for Private Equity Funds taking over companies worth up to €20 million and less than 10 years old) as well as by explicit public subsidies for private old age pension schemes (*Riester Rente*) in 2001.

Financialization and the functional income distribution – some theoretical remarks

Financialization may influence the distribution of income between retained earnings and distributed profits on the one hand, and wages on the other hand. Although in detail the different mechanisms may differ substantially, the general pattern of their influence on the functional distribution of income should be very similar. Any kind of financialization, be it an increase in shareholder value orientation or a rising indebtedness, can be seen as a rise in rentiers' distributional claims. Following a post-Keynesian perspective on firms' price setting (Kalecki 1954), we assume mark-up pricing. The mark-up is determined by the degree of monopoly, which in turn is affected by the degree of competition in the goods market, the importance of price competition in the goods market, the development of overhead costs and the bargaining power of labor unions. Table 1 connects the different determinants of the degree of monopoly as illustrated in the first row and the characteristics of financialization as presented in the first column to illustrate how, in theory, financialization might lead to an increase in the mark-up ($m \uparrow$) under mark-up pricing.

In the first round, such a rise in distributional claims should be at the expense of firms' retained earnings, because, in the short run, the mark-up should be inelastic with respect to the changed distributional claims. However, in the second step, this can change and the mark-up may become elastic, shifting all or part of the firms' burden towards wages and thereby reducing the wage share. Therefore, depending on the relative bargaining power in the medium run, a rise in rentiers' distributional claims due to financialization may be expected to be at the expense of labor income.

Table 1. Financialization and mark-up pricing.

Characteristics of financialization	Determinants of the degree of monopoly			
	Degree of competition In the goods market	Importance of price competition in the goods market	Development of overhead costs	Bargaining power of labor unions
Increase in shareholder-value orientation (dividend payments, share buybacks)			m ↑	
'Downsize and Distribute'				m↑
Increase in financial investments (mergers and acquisitions)	m↑	m↑		
Variations in the interest rate/ rise in indebtedness			m ↑	

Source: Author's representation.

An increase in shareholder value orientation might lead to an increase in dividend disbursements and share buybacks for the following reasons: management remuneration is increasingly related to profit and stock market valuation, which increases managers' incentives to keep stock prices on a high level. Moreover, high stock prices function as a buffer against hostile takeovers and there is also a growing pressure of institutional investors that demand ever-increasing dividend payments. Another aspect worth mentioning is a potential increase in indebtedness of the firm as internal funds might not be sufficient to cover the demand for higher dividend and share buybacks while at the same time financing investment expenditures. Consequently, this would lead to an increase in interest payments due to a rise in the amount of interest bearing debt (Hein and van Treeck 2008b).

As was said before, the rising costs of financialization for firms may have to be compensated by a reduction in firms' retained earnings or by a reduction in labor income if the mark-up turns out to be elastic with respect to these cost categories. With respect to interest rates, Moore (1989) has detected a long-term responsiveness of the mark-up which, according to his findings, is subject to the expected permanence as well as the magnitude in interest changes. Whereas cyclical fluctuations are not likely to be passed on to the mark-up, long-term changes in interest rates do affect the mark-up, thereby enabling firms to attain their profit target in the long-run (see also Panico 1985; Pivetti 1985, 1988, 1991 and Sraffa 1960).

Basically, the same effect can be postulated for shareholders' rising distributional demands: it may be expected that shareholders' demand for higher distributed profits will be passed on to workers with the effect of a declining share of wages in national income (Boyer 2000). Hein (2009) and Hein and van Treeck (2007) have argued that at least in the medium run, when rising dividend payments to rentiers have become a permanent feature, the mark-up in firms' price setting is likely to become dividend-elastic depending on the degree of competition and bargaining power of labor unions, i.e. workers.

Additionally, there may be important indirect effects of financialization on the functional income distribution. Such indirect effects may be caused by the influence of financialization on the degree of competition on the goods market and on the bargaining power of the trade unions. Regarding the former, both mergers and acquisitions as well as hostile takeovers in the corporate sector will tend to improve the conditions for a rising mark-up in the face of a rising dividend rate. With respect to the latter, slow growth and high unemployment in combination with a 'downsize and distribute' strategy of firms (Lazonick and O'Sullivan 2000) contribute to a weakening of the bargaining power of employees and thereby to a decrease in the wage share. In addition, the increase in 'labor market flexibility' agendas that were established in several countries played a major role in weakening unions and thereby real wages. Parts of these agendas eroded labor market supports such as minimum wages, unemployment benefits, employment protection, and employee rights (Palley 2008).

Therefore, from a theoretical point of view, in the medium to long run, increasing shareholder power would favor redistribution at the expense of labor income share.

Review of the empirical literature

So far, there are only a few studies that capture distributional effects of financialization. Some of the studies estimate the impact of financialization on the functional income distribution restricted to the non-financial corporate sector directly. Others include the effects in a more indirect way, as they are not yet interested in financialization, via the effects of monetary policy and interest rates.

Among the latter group of studies, Moore (1989) provides evidence for a distributional effect of monetary policy on income distribution for the USA. According to Moore, the increase in interest rates since the early 1980s was passed on by enterprises through the mark-up at the expense of the wage share. A more recent study by Argitis and Pitelis (2001) for the case of the US states that the increase in interest rates during the 1970s and the 1980s favored financial capital, while the share of industrial capital in total profits declined. However, according to their results, industrial capital has increased its share in income at the expense of labor in the nonfinancial corporate sector since 1992. Applying time series econometrics, Argitis and Pitelis find that the share of industrial profits is negatively affected by the nominal interest rate. A rise in interest payments to rentiers does not directly harm the wage share but rather seems to compress industrial profits. However, if rising interest payments are accompanied by weakened bargaining power of labor unions and lower wage demands, the redistribution will take place at the expense of labor income. This result is quite close to what one would expect given the theoretical remarks laid out in Section 3.

Among the group of studies that try to estimate the impact of financialization on the functional income distribution, Stockhammer (2004) calculates rentier income shares which he defines as interest and dividend income in relation to total income for the household and nonfinancial business sector. In his study, which covers West Germany, France, the UK, the US, Italy and France from 1960 to 1996, Stockhammer finds evidence for a rise in rentier income shares.

Duménil and Lévy (2001, 2005) studied the development of the profit rate of nonfinancial corporations in France and the US from 1960 until 2001. According to their results, the rise in the profit rate since the early 1980s was caused mainly by the rise in net real interest payments. The profit rate of non-financial corporations without net real interest payments was constant in France and increased only slightly in the US. Therefore, it can be concluded from their analysis that rising interest payments of non-financial corporations had to be paid for by a reduction in the labor income share. Thus, mainly the rentiers' class seems to have benefited from redistribution at the expense of labor.

All of the aforementioned empirical studies give important insights into the effects of financialization on the labor income share. Unfortunately, however, they do not convey the full picture of the story as they are restricted to the non-financial sector of the economy and/or focus on interest income, which is only one component of rentier income. The first and most comprehensive attempt to cover the whole story by systematically calculating rentier income shares for the entire economy and for various countries is a series of studies by Epstein et al. to which the following section turns.

Rentier shares calculated by Power, Epstein and Abrena, and Epstein and Jayadev

The most comprehensive study concerned with rentier income shares was conducted by Power, Epstein, and Abrena (2003a). In this study, the authors calculated rentier income shares for 29 OECD countries from 1960 until 2000 and found out that rentier shares generally increased between the 1960s and 1970s, and even more between the 1980s and 1990s. Rentier shares are defined as profits realized by firms engaged primarily in financial intermediation plus interest income realized by all nonfinancial non-government resident institutional units, i.e. the rest of the private economy. All rentier income data are presented as shares of GDP, where GDP is calculated net of government final consumption expenditure as the government is excluded as the recipient of interest income in the numerator. The authors chose this definition, referring to Kalecki who defined rentier income as 'incomes accruing to those owning financial institutions and financial assets more generally' (Power, Epstein, and Abrena 2003a, 4).[6]

However, the results of Power, Epstein, and Abrena (2003a) were considered to be potentially misleading by Epstein and Jayadev (2005), because they were not corrected for inflation. Rising nominal interest payments may simply compensate for capital losses due to inflation. Epstein and Jayadev (2005) tried to solve this problem for 15 OECD countries for the period 1960–2000 by adjusting for inflation. However, the inflation adjustment did not turn out to be significant: the earlier results could be confirmed, which means that in most OECD countries, rentier shares increased between the 1960s and 1970s and the 1980s and 1990s. Quite interestingly, in some cases the increases were even stronger than in nominal terms.

Epstein and Jayadev (2005, 4) calculated rentier income similar to Power, Epstein and Abrena (2003a), but in contrast to the previous study, the authors used the gross national product instead of the gross domestic product in the denominator.

The rentier share for the US calculated by Epstein and Jayadev (2005) covers the years 1961 to 1995. From 1961 to 1977, the share was relatively stable at a low level. Then, there was an upswing until the early 1980s, when the rise in the share began to level out again having increased by approximately 20 percentage points.

Unfortunately, the relevant German data were only available from 1978 to 1999, so no comparison for earlier years is possible. The movement of the rentier share in Germany is far less spectacular than in the US because the total increase is only 5 percentage points. However, it is still possible to see an increase in the early 1980s, which was probably also caused by the heightened real interest rates. The second upward trend started in the 1990s and can possibly be directly related to the deregulatory changes in law that were mentioned in Section 2.

Apparently, the results presented by Epstein and Jayadev (2005) seem to correspond quite well with the financialization hypothesis the authors chose as a base and which stresses the increasing importance of the financial sector. In addition, their results also appear to match the developments in the deregulation of financial markets as a prerequisite to financialization in the broad sense as applied in this paper.

However, some strong objections regarding the calculations can be raised, some of which have already been recognized by Epstein and Jayadev (2005) themselves.

Firstly, levels between countries are hardly comparable due to country specific classification methods with respect to residential units. Moreover, calculations of rentier income shares differ because of data limitations, because not all necessary data were available for every country for every year.

Secondly, not only the comparison between countries is difficult but also between the rentier income share for a given country at different points in time as different data sources were matched. Most importantly, in general, data from 1990 onwards are classified in the SNA 1993 while for earlier data the old classification had to be used.

Thirdly, the analysis does not only suffer from data limitations but also from conceptual inconsistencies. As mentioned before, the authors eliminated government consumption from the denominator by subtracting government expenditure from gross domestic product and gross national product, arguing that the government was not included in the numerator. However, this procedure is difficult for the following reasons: international comparability is affected because countries that have a ‘lean government’, i.e. governments following a low public spending policy, will have a lower rentier share than countries where public spending is higher, even if the rentier income and their GDP or GNP are the same. Moreover, movements in the share of government expenditure to GDP lead to movements in the rentier income share even if the underlying rentier incomes have not changed at all. Therefore, the comparability of the rentier income share at different points in time within the same country suffers even more.

Fourthly, Epstein and his colleagues do not include dividend income received by the household sector from the nonfinancial corporate sector. However, from a broader perspective regarding financialization applied here, dividend income has to be included as it is certainly a major channel of influence of increasing shareholder power on income distribution.

Fifthly and perhaps most importantly, while the studies by Power, Epstein, and Abrena (2003a) and Epstein and Jayadev (2005) present a comprehensive picture about the evolution of rentier income shares, they do not provide evidence at whose expense rentiers could increase their share in national income. In particular, it is not clear whether rentier income shares increased at the expense of wages or of retained earnings.

In the following, an alternative approach for the calculation of rentier income shares will be presented.

Rentier income shares: a consistent alternative approach

The requirements

In order to tackle the problems mentioned before, rentier shares in this approach have to fulfill certain criteria. First of all, following the broad definition of financialization that was given in the introduction, it is necessary that rentier shares are constructed for the economy as a whole, as all sectors of the economy are affected. A further criterion is that the rentier share, together with the complementary other income shares, should add up to 100% in order to be able to indicate which share has suffered in the case of redistribution. Next, in order for the calculated income shares to be comparable both internationally and over time, data should be taken from the same source or at least follow the same definition between countries and over time.

The derivation of rentier income from the national accounts

As the aim of this paper is to calculate the rentier income share as a real share of net national income, the natural starting point is the definitional equation of net national income:

$$\mathrm{NNI}_{\mathrm{MP}} = W + \Pi + T_{\mathrm{ind}} - Z$$

Net national income, measured in market prices, is distributed between wages (W) and profits (Π), both before taxes, and indirect taxes (T_{ind}) net of subsidies (Z).

Net national income, as indicated in Table 2, is distributed between the financial and non-financial corporations, the government as well as private households and non-profit institutions. For the individual sectors net national income is defined as follows.

In both the financial and non-financial corporation sector, net national income is given as the sum of net operating surplus and property income received minus property income paid. Property income as defined by the OECD (SNA 93) in turn can be further split up into interest, distributed income of corporations (i.e. dividends and withdrawals from income of quasi-corporations), reinvested earnings on direct foreign investment, property income attributed to insurance policy holders and rent. Therefore, for the corporate sector, net national income of the sector is identical to retained earnings, because, after the deduction of net property income, this is what remains at the disposal of the corporate sector.

For the government sector, net national income is given as the sum of net operating surplus, taxes on production and imports minus subsidies and property income received minus property income paid.

For private households and non-profit institutions, net national income of the sector is composed of the operating surplus (which is identical to mixed income) plus the compensation of employees plus property income received minus property income paid.

The aim of this study is to find out if rentiers' income share in national income increased, and moreover, whether redistribution has taken place at the expense of the wage share or of the share of retained earnings in national income. Therefore, net national income has to be split into the corresponding components in an adequate way. Table 2 illustrates the distribution of the primary income account between the sectors, i.e. non-financial and financial corporations, government,

Table 2 Distribution of primary income, national accounts; Germany, 2007 (components that were used in this study are colored in dark grey, whereas the elements that were used by Epstein and colleagues are presented in a light grey.).

		Total economy	Non-financial corporations	Financial corporations	General government	Households and NPISH*	Rest of the world
		2007					
	Operating surplus/mixed income	600.21	367.73	17.37	−3.69	218.80	− 177.74
+	Compensation of employees	1,183.55	–	–	–	1,183.55	6.69
–	Subsidies, payable	27.09	–	–	27.09	–	5.72
+	Taxes on production and imports, received	305.46	–	–	305.46	–	7.82
–	Interest, payable	498.61	62.21	304.42	67.35	64.63	149.53
+	Interest, receivable	510.52	44.35	377.57	7.52	81.08	137.62
–	Distributed income of corporations, payable	385.65	329.62	56.03	–	–	47.07
+	Distributed income of corporations, receivable	393.03	37.01	47.40	9.42	299.20	39.69
–	Property income attributed to insurance policy holders, payable	45.18	–	45.18	–	–	–
+	Property income attributed to insurance policy holders, receivable	45.16	1.99	0.02	–	43.15	0.02
–	Reinvested earnings on foreign direct investment to the rest of the world	6.16	4.86	1.30	–	–	30.20
+	Reinvested earnings on foreign direct investment from the rest of the world	30.20	20.34	9.86	–	–	6.16
–	Rents payable	2.85	1.12	–	–	1.73	–
+	Rents receivable	2.85	0.01	–	1.05	1.79	–
=	Primary income (Net National Income)	2,105.44	73.62	45.29	225.32	1,761.21	− 212.26

Source: Federal Statistical Office, Germany; author's translation. *NPISH: Non-profit institutions serving households

households and non-profit institutions, the rest of the world, and the total economy. The components used in this study are colored in dark grey, whereas the elements that were used by Epstein and colleagues are highlighted in a light grey.

The table clearly illustrates that wages, i.e. the compensation of employees, and retained earnings can be taken directly from the national accounts primary income table. However, with respect to rentier income, matters are a bit more complex. Rentier income within the framework of the chosen approach is set to be identical with net property income of the household sector for the following reasons: for the economy as a whole, net property income adds up to zero, ignoring the rest of the world. That is no surprise, given the fact that payments received and payments on account balance each other out. As can be seen from Table 2, on balance, corporations and the government pay for the rentier income of the household sector with only a very small positive rentier income of the corporations.[7] Therefore, it is the private household sector to which the money ultimately goes.

After the calculation of the rentier income share in the way described, the three components of national income under investigation are complete. Divided by net national income they represent the wage share, the share of retained earnings and the rentier income share. What remains is the net national income of the government sector and the mixed income of the household sector, which will not be considered in the following.

The data set

A natural starting point for international comparisons of the kind the current paper aims at are the OECD Annual National Accounts (OECD ANA). In fact, they provide comparable data in the SNA 93 system of classification for many countries including the US and Germany. However, while the time series for the US starts in 1970, the German one starts as late as 1995. Therefore, the calculations for Germany are based on original National Accounts data taken from the German Federal Office for Statistics, which is also based on SNA 93 but goes back to 1980. In order to check for consistency, the calculations from 1995 onwards were conducted with both data sets and the results proved to be absolutely identical.

While, on the aggregate level, the data for the calculation of the three shares under investigation is more or less readily available for both countries, problems arise as soon as one is interested in some kind of disaggregation for the US. On a sectoral level, the OECD ANA data for the USA only offer information on corporations and do not distinguish between financial and non-financial corporations. Moreover, property income paid and received by the household sector is only available on the aggregate level. That is why in the current study the components of rentier income as well as the sectoral income shares have to be calculated by using original NIPA data, although the data are not completely compatible with OECD data, as the Bureau of Economic Analysis (BEA) does not apply SNA 93 (Mead, Moses, and Moulton 2004; OECD 2006).

The results

In Figure 3, retained earnings of corporations, net property income and compensation of employees are presented as a share of net national income for the USA from 1970–2006. In the beginning of the 1980s, the rentier income share increased from around 5% to more than 8%. This level was almost constant until the end of the 1990s, when the share declined until 2006 (the end of the period under observation). However, the share remained above its pre-1980s level. While the increase in the rentier share at the beginning of the 1980s corresponds quite well with the financialization hypothesis and the associated measures of deregulation and liberalization, the development in the recent past seems to be at odds with the aforementioned hypothesis.

In the short run, the increase in the rentier share of income seems to be at the expense of the share of retained earnings in net national income. However, this is not very surprising, given the theoretical observations about dividend- and interest-inelastic mark-ups in the short run presented in Section 3. In the medium to long run, however, retained earnings were relatively constant, whereas the wage share decreased slightly until the 1990s, followed by an astonishing increase until 2001, and a subsequent decrease again. Probably, the peak can be attributed to the recession in 2000/01. All in all, in the long run, it seems that the increase in the rentier income share indeed goes hand in hand with a decrease in the share of wages in national income.[8]

A better understanding of the development of the rentier income share can be obtained by looking at its components (compare Figure 4), although the results have to be interpreted with caution because the data employed are taken from NIPA, whereas the data in Figure 3 were taken from OECD ANA.

The least important development is the movement of the share of rental income, which saw a general decline. Net dividend income increased since the 1970s and even more in the 1990s, and accelerated since 2002. This corresponds perfectly with the financialization hypothesis, i.e. an increase in shareholder value orientation and thereby an increase in dividend payments of corporations. Looking at net interest income renders a good explanation for the decrease in the overall rentier income share at the end of the observation period in Figure 3, because the increase in the

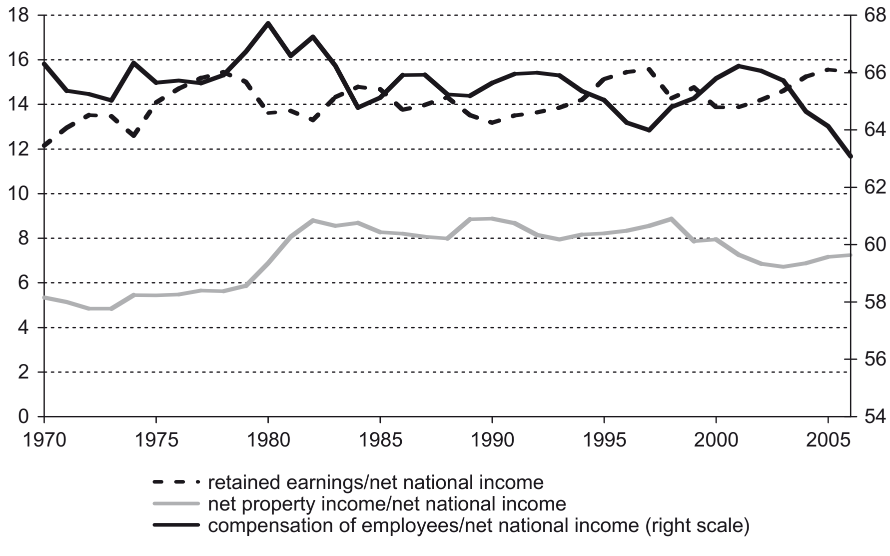

Figure 3. Income shares, USA, 1970–2006.
Source: OECD National Accounts; author's calculation.

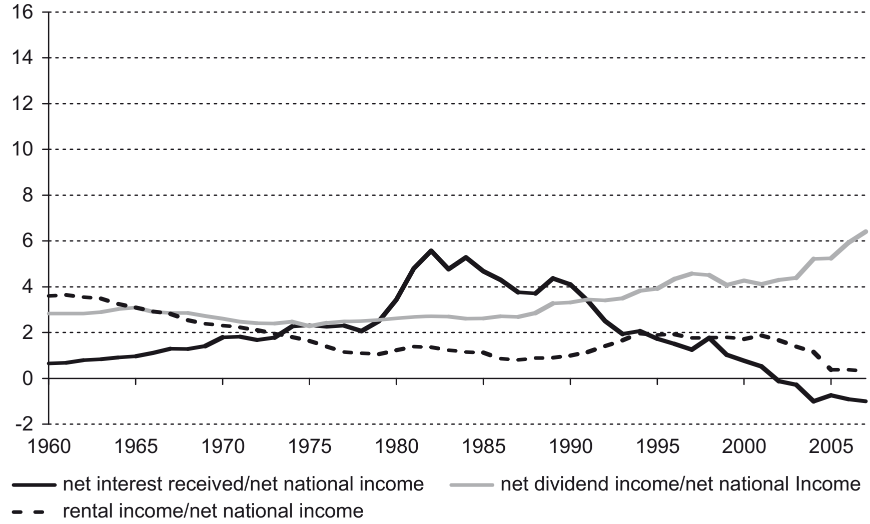

Figure 4. Components of rentier income as a share of net national income, USA, 1970–2007.
Source: Bureau of Economic Analysis (BEA); NIPA Tables; author's calculation.

share of dividend income has been overcompensated by a decrease in the net interest share, which, in turn, can readily be attributed as due to the rising (over) indebtedness of private households in the US, i.e. interest payments to the rest of the world.

Figure 5 shows the retained earnings, net property income, and compensation of employees as a share of national income for Germany from 1980–2008. Compared with the US, the movements in the shares are much more accentuated. Net property

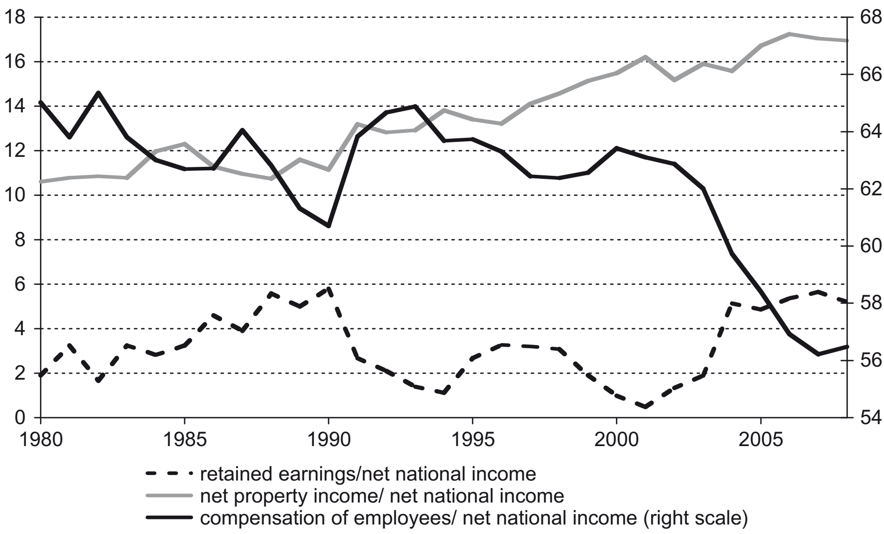

Figure 5. Income shares, Germany, 1980–2008.
Source: Federal Statistical Office, Germany; author's calculation.

income increased steadily from almost 11% in 1980, to almost 18% in 2007. The wage share decreased from 65% to 61% in 1990, recovered until 1994 due to German reunification and then constantly decreased until 2000 when it plummeted from more than 63 to 56%, which is due to excessive wage moderation during the long stagnation period after the 2001 slowdown. Retained earnings increased from 2% in 1980, to 6% in 1990. From 1990 until 2003, it fluctuated around 2% and increased to almost 6% afterwards. However, one has to keep in mind the break in the data in 1990, due to unification.

Since the beginning of the 1990s, net property income increased while the wage share decreased, leading to the assumption that since then Germany has followed the example of the US.[9]

Figure 6 shows in more detail the rentier income share by splitting it into its four components, which are: net interest income, dividend income, property income attributed to insurance holders and net rents; again as a share of net national income. With regard to property income attributed to insurance holders, only a small general increase can be recognized. Net rental income was negligible. Net interest income remained almost constant at around 2% of net national income until the 1990s and then decreased significantly to below 1% of net national income. The most striking result occurs with respect to dividend income. Since the 1990s it increased steadily and in fact doubled from 7% to about 14% after 2005. It is certainly not exaggerated to interpret this development as an indicator of growing shareholder value orientation and therefore financialization. It is also quite clear that the increase in the rentier income share in Figure 5 is dominated by the aforementioned strong movement in the dividend income share.

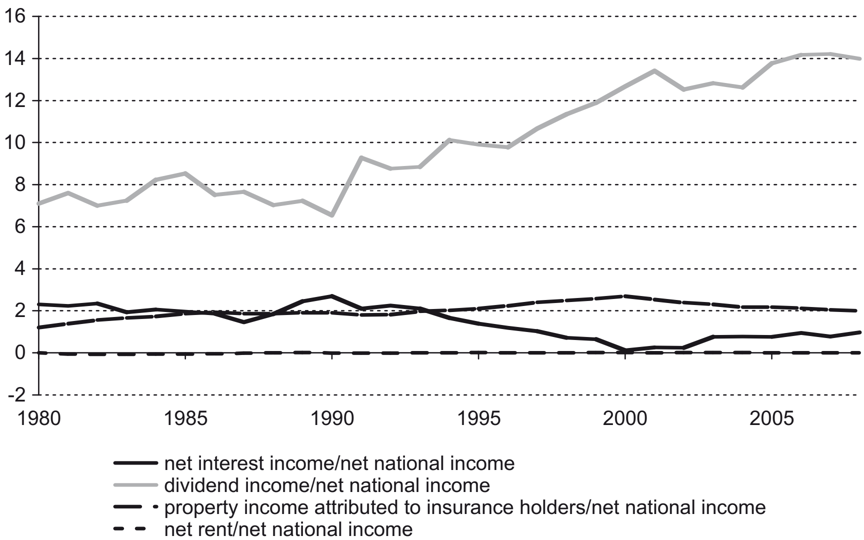

Figure 6. Components of rentier income as a share of net national income, Germany, 1980–2008.
Source: Federal Statistical Office, Germany; author's calculation.

Comparison of the results

Although the rentier income shares by Epstein and Jayadev (2005) and in the current paper were calculated by using substantially different methods, it is interesting to compare the results. What is striking is that the development of the rentier shares over time is rather similar for both the US and Germany over the same time horizon. The rentier share for the US calculated by Epstein and Jayadev increased in the 1980s, as does the share calculated in this paper. For the German case, the trend is also comparable. However, the levels of the two rentier shares differ substantially. For the US, the levels differ a lot: Epstein and Jayadev's peak value amounted to 25% compared with only 9% in our results. In Germany for the same time frame, Epstein's results for the rentier share ranges from only 2% to 7%; whereas our rentier share starts at 11% and ends at 15%.

Table 2 shows the positions included by Epstein and Jayadev in a light grey form, so that some of the conceptual differences to the approach chosen in this paper, which are colored in dark grey, can be identified. Other differences, such as the use of the gross operating surplus and correction for government expenditure and the inflation adjustment cannot be shown in the table. Because dividend income was identified as the main source for the increase in rentier income shares in this study, and given the fact that Epsteins' studies included only the dividend income of financial corporations, it is quite likely that this fact explains the differences in levels. However, as was mentioned before, the schemes of calculation differ substantially, owing to differences in the definition of rentier income shares.

Sectoral developments and the differences between Germany and the USA

So far, we have only discussed the changes in income distribution at the macroeconomic level. However, one phenomenon that is crucial for financialization is the potential shift of significance from the real to the financial sector of an economy. If income shares differ significantly between the financial and the non-financial sector, part of the changes in functional distribution at the aggregate level might be attributable to sectoral shifts.

Figure 7 illustrates the share of net value added of non-financial corporations as a share of net value added of corporations for the USA and Germany, 1970–2008 and 1980–2008, respectively. As can be seen from Figure 7, in the USA the share of non-financial corporations' net value added to the total net value added of corporations decreased constantly from 93% to 86% in 2005. This is exactly the astounding rate of expansion of financial markets since 1980 that Crotty (2002) observed and that Krippner (2005) called the growing weight of finance in the American economy. The corresponding German share, in stark contrast, was remarkably stable and fluctuated at around 93%. Therefore, in Germany there simply did not yet occur a sectoral shift towards the financial sector as measured by its share in net value added.

USA

Table 3 shows the compensation of employees as a share of net value added for non-financial- and financial corporations for the USA from 1970 till 2008. Surprisingly, the figures reveal that the share of wages in net value added was relatively constant in both sectors. The wage share in the non-financial corporate sector fluctuated at around 75%, whereas in the financial sector it fluctuated at around 65%. For the

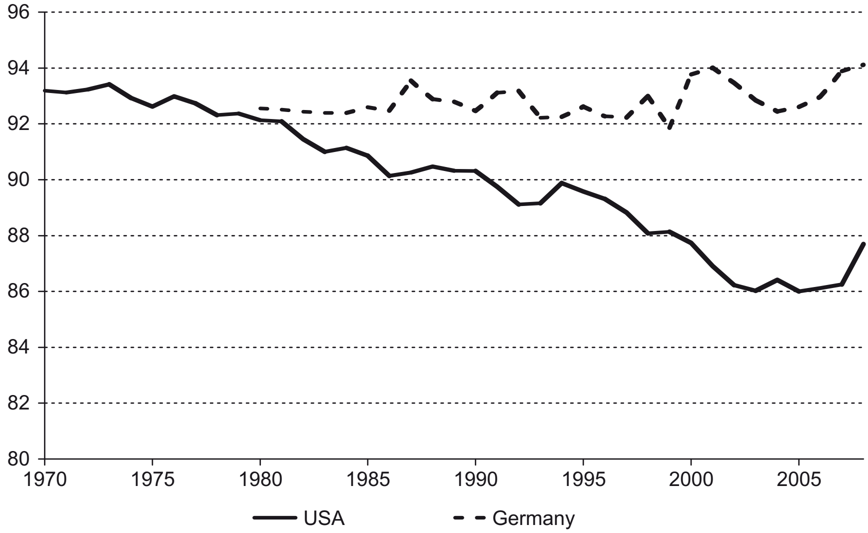

Figure 7. Net value added of non-financial corporations as a share of net value added of corporations; USA and Germany, 1970–2008.
Source: BEA, NIPA Tables; Federal Statistical Office Germany; author's calculation.

non-financial corporate sector, the wage share was especially high from the end of the 1990s until 2003. Therefore, although there was a strong increase in the weight of the financial corporations compared to nonfinancial corporations, this shift cannot explain the relative stability of the wage share of the economy as a whole as compared to Germany. On the contrary, this structural change has imposed a downward bias on the overall wage share, because the wage share in the financial sector has been lower than in the nonfinancial sector. Therefore, the stability of the sectoral wage shares in the face of increasing financialization is what remains to be explained.

Germany

In the case of Germany, there was indeed a decline in the share of wages in the non-financial corporate sector (compare Table 3). The wage share declined tremendously since the 1990s, from 80% to 68% of net value added. In contrast, the wage share of the financial sector fluctuated at around 70%, with the exception of the years 2000 to 2003, when the share even rocketed to 85% of net value added. Even in the absence of a shift in significance towards the financial corporations, the decline in the wage share of the economy as a whole was slowed down by the rather stable wage share in the financial sector.

Overall, it is therefore not possible to explain the paradox of the relative stability of the US wage share relative to the German wage share by shifts of significance from the non-financial to the financial sector of the two economies under investigation. In the USA, such a shift of significance can be observed, but since the wage share in the financial sector is smaller than in the non-financial sector, it should have caused a downward trend in the overall wage share. In Germany there has not been a shift towards the financial sector, and since the wage share in the financial sector is smaller than in the non-financial sector, this should have stabilized the overall wage share.

Table 3. Compensation of employees as a share of net value added of non-financial and financial corporations; USA and Germany, 1970–2008.

	USA		Germany	
	Non-financial corporations	Financial corporations	Non-financial corporations	Financial corporations
1970	73.6	63.4		
1971	72.3	63.5		
1972	72.4	64.3		
1973	73.0	65.4		
1974	75.1	62.9		
1975	73.0	62.6		
1976	73.0	65.0		
1977	72.9	62.7		
1978	73.8	59.4		
1979	75.7	60.6		
1980	76.7	62.3	79.5	66.8
1981	74.7	61.7	80.6	67.9
1982	75.5	62.8	79.9	67.9
1983	73.9	61.5	78.0	67.7
1984	72.6	60.6	77.3	66.6
1985	73.2	61.3	75.9	67.1
1986	74.2	62.4	75.3	66.1
1987	73.7	65.5	77.0	80.6
1988	72.8	67.1	76.2	71.9
1989	73.3	65.4	75.3	69.4
1990	73.9	66.8	75.1	67.2
1991	74.3	65.0	77.7	71.3
1992	74.7	63.3	78.8	76.1
1993	74.0	66.2	79.9	69.7
1994	72.7	68.2	78.0	69.4
1995	72.4	65.6	77.2	72.3
1996	71.6	64.9	77.0	67.8
1997	71.5	63.0	75.1	65.9
1998	73.2	62.5	73.6	71.8
1999	73.8	63.3	74.8	61.6
2000	75.3	62.9	74.8	82.7
2001	77.4	60.1	73.7	85.3
2002	76.4	57.3	73.5	79.6
2003	75.6	57.0	73.0	71.7
2004	73.4	58.8	71.2	64.9
2005	72.1	57.1	69.8	64.2
2006	70.9	57.0	68.3	64.1
2007	72.4	58.7	67.4	71.7
2008	73.7	67.1		

Source: BEA, NIPA Table; Federal Statistical Office, Germany; author's calculation.
Note: The NIPAs include estimates of value added for the business sector and for corporations. However, neither of theses values match the value added of the corporations sector on a SNA basis. … The value added of the NIPA corporations sector does not include the transactions of Federal Government enterprises and of state and local nontransit utility enterprises (Mead et al. 2004).

Conclusion

The main objective of this study was to determine who gained from the fall in the labor share of income in the USA and Germany. The basic assumption was that if there is a link between financialization and income distribution, rentiers should benefit from the fall of the wage share.

The first part of this paper was devoted to a brief review of important institutional changes that paved the way towards financialization. Furthermore, potential channels were identified on how financialization could, in theory, influence the distribution of income.

The question of whether or not there is a link between financialization and income distribution cannot be answered in a straightforward manner. Without a doubt, there is certainly a strong correlation between the increase in rentier shares and the stages of development of financialization in the two different countries. In the US, where the important shift towards financialization occurred in the early 1980s, the rentiers' share of income shows a corresponding leap upwards exactly at that time and remains on a higher level until the end of the observation period. In Germany, where the process of financialization started much later in the beginning of the 1990s and followed a much more gradual transition, this is exactly mirrored by the development of the rentiers' income share: from the 1990s onwards, this share gradually increased over time. What is more, some evidence could be presented that the increase in rentier shares was caused by an increase in dividend income, which corresponds quite well with the increase in shareholder value orientation. The paper leaves some issues to be explored in future research. The empirical evidence suggests that the decline in the labor share can be related to financialization. In particular, it would be important to understand the mechanisms through which financialization influences the functional income distribution. This is important to distinguish the effects of financialization from other influencing factors, such as globalization and technical change.

In regard to the rather puzzling development of the wage shares in the US and Germany, with the US wage share being more stable than the German, sectoral disaggregation could provide no answer. However, differences that were derived between the US and Germany are quite interesting. In the US, although there was a strong increase in the significance of the financial corporations compared to non-financial corporations, this shift cannot have stabilized the wage share of the economy as a whole, because the wage share in the financial sector was generally lower than in the non-financial sector. The sectoral shift has therefore heavily contributed to a downward trend of the wage share which, however, has been leveled-out by compensating factors. Another interesting finding in the US case is the relative stability of sectoral wage shares, as one would have expected a decrease due to the dominance of financialization, shareholder value orientation and to the deregulated US labor market. A potential answer to this phenomenon might be the tremendous increase in top income shares, which are part of wage income in the national accounts. According to Piketty and Saez (2006, 204), 'top executives (the "working rich") replaced top capital owners (the "rentiers") at the top of the income hierarchy during the twentieth century'. It is quite possible that these skyrocketing management salaries stabilized the wage shares in both sectors and thus compensated for the downward tendencies imposed on the wage share by financialization.

In the case of Germany, the much more pronounced downward trend in the wage share is entirely caused by a falling wage share in the nonfinancial sector. In the absence of a shift in significance towards the financial corporations, the decline in the wage share of the economy as a whole was even slowed down by the more stable wage share in the financial sector.

One important aspect of financialization that this paper does not cover is the rise in management compensation, and the increase in variable remuneration schemes in the form of stock options. This is an obvious direction for future research. If suitable data on the composition and distribution of household income are available, the calculated rentier income shares could be corrected upwards for those income categories and the wage shares corrected downward correspondingly. That there could be substantial effects of such a correction is indicated by the studies by Piketty and Saez (2006) for the US and Bach, Corneo, and Steiner (2007) for Germany on personal income distribution. The high increase in top income shares was, at least in the US, due to rising management salaries. If the upward bias in the wage shares caused by the statistical inclusion of the rise in management compensation and variable remuneration schemes can be shown to be relatively stronger for the US than for Germany, then this could also contribute to explaining the puzzle of the relative development of the wage shares in the two countries.

Acknowledgements

The author is most grateful to Eckhard Hein, Achim Truger for very helpful comments on earlier drafts of this paper. Of course, any errors and inaccuracies are the author's. The financial support of the Hans Boeckler Foundation is gratefully acknowledged.

Notes

1. Bowley's Law (Krämer 1996).
2. It is important to note that the wage share and profit share fluctuate with economic cycles. Wages tend to be less volatile than profits during economic shocks, so the share of the remaining economic pie going to wages is likely to increase during recessions and decrease during economic expansions.
3. See for example Blanchard and Giavazzi (2003), EU Commission (2007), Guscina (2006), Harrison (2002), IMF (2007) and Tytelle and Jaumotte (2007).
4. Real Estate Investment Trust.
5. In addition to the working paper, Power, Epstein and Abrena (2003b) published a technical appendix that provides not only country specific information concerning data sources, but also more details about the calculations. However, in this appendix, they reveal that the government sector was subtracted from GDP in the denominator.
6. If property income received exceeds property income paid, it is possible that part of the retained earnings of the corporate sector can be considered as rentier income. Thanks to an anonymous referee for drawing attention to this fact.
7. The rentier share is negatively correlated with the share of labor in national income. Between 1970 and 2006, the correlation is −0.52.
8. Between 1980 and 2008, the correlation coefficient is −0.67. Hence, the rentier share and the labor share of income are negatively correlated.
9. For a comparison of the differences in the calculation of rentier shares, compare Table 2.

References

Argitis, G., and C. Pitelis. 2001. Monetary policy and the distribution of income: Evidence for the United States and the United Kingdom. *Journal of Post Keynesian Economics* 23, no. 4: 617–38.

Bach, S., G. Corneo, and V. Steiner. 2007. From bottom to top: The entire distribution of market income in Germany, 1999-2001. DIW discussion paper no. 683.

Berger, A., A. Kashyap, and J. Scalise. 1995. The transformation of the US banking industry: What a long, strange trip it's been. *Brookings Papers on Economic Activity* 2: 55–218.

Blanchard, O., and F. Giavazzi. 2003. Macroeconomic effects of regulation and deregulation in goods and labor markets. *Quarterly Journal of Economics* 118, no. 3: 879–907.

Block, T. 2002. Financial market liberalization and the changing character of corporate governance. In *International capital markets: Systems in transition*, ed. J. Eatwell, and L. Taylor. New York: Oxford University Press.

Boyer, R. 2000. Is a finance-led growth regime a viable alternative to Fordism? A preliminary analysis *Economy and Society* 29, no. 1: 111–45.

Crotty, J. 2002. The effects of increased product market competition and changes in financial markets on the performance of nonfinancial corporations in the neoliberal era. PERI working paper no. 44.

Duménil, G., and D. Lévy. 2001. Costs and benefits of neoliberalism: a class analysis. *Review of International Political Economy* 8: 578–607.

Duménil, G., and D. Lévy. 2002. Neoliberalism: The crime and the beneficiary. *Review* XXV: 393-400.

Duménil, G., and D. Lévy. 2005. Costs and benefits of neoliberalism: A class analysis. In *Financialization and the world economy*, ed. G. Epstein. Cheltenham: Edward Elgar.

Epstein, G., and A. Jayadev. 2005. The rise of rentier incomes in OECD countries: Financialization, central bank policy and labor solidarity. In *Financialization and the world economy*, ed. G. Epstein. Cheltenham: Edward Elgar.

EU-Commission. 2007. The labour income share in the European Union. Employment in Europe, Chapter 5. Luxembourg: Office for Offical Publications of the European Communities, 237–72.

Froud, J., C. Haslam, S. Johal, and K. Williams. 2000. Shareholder-value and financialization: Consultancy promises, management moves. *Economy and Society* 29, no. 1: 80–110.

Greider, W. 1997. *One world, ready or not: The manic logic of global capitalism*. New York: Simon and Schuster.

Guscina, A. 2006. Effects of globalization on labor's share in national income. IMF working paper 06/294.

Harrison, A. 2002. Has globalization eroded labor's share? Some cross-country evidence. Mimeo UC Berkeley.

Hein, E. 2009. A (Post-) Keynesian perspective on 'financialisation'. IMK Studies 1/2009.

Hein, E., and T. van Treeck. 2007. 'Financialisation' in Kaleckian/Post-Kaleckian models of distribution and growth. IMK working paper 7/2007.

Hein, E., and T. van Treeck. 2008a. Finanzmarktorientierung – ein Investitions- und Wachstumshemmnis? IMK Report No.6.

Hein, E., and T. van Treeck. 2008b. 'Financialisation' in Post-Keynesian models of distribution and growth – a systematic review. IMK Working Paper 10/2008.

IMF. 2007. The globalization of labor. World Economic Outlook (April), Chapter 5, IMF, Washington DC.

Kalecki, Michal. 1954. *Theory of economic dynamics*. London: Georg Allen.

Krämer, Hagen. 1996. *Bowley's Law. Technischer Fortschritt und Einkommensverteilung*. Marburg: Metropolis.

Krippner, G. 2005. The financialization of the American economy. *Socio-Economic Review* 3: 173–208.

Lazonick, W., and M. O'Sullivan. 2000. Maximizing shareholder value: a new ideology for corporate governance. *Economy and Society* 29, no. 1: 13–35.

Mead, C.I., K.E. Moses, and B.R. Moulton. 2004. The NIPAs and the system of national accounts. Online available: http://www.bea.gov/scb/pdf/2004/12December/1204_NIPA&SNA.pdf (accessed 20 August 2009).

Moore, B. 1989. The effects of monetary policy on income distribution. In *Macroeconomic problems and policies of income distribution*, ed. P. Davidson, and J. Kregel. Cheltenham: Edward Elgar.

Obstfeld, M. 1998. The global capital market: Benefactor or menace? *Journal of Economic Perspectives* 12, no. 4: 9–30.

OECD. 2006. Understanding national accounts. Online available: http://www.oecd.org/dataoecd/37/12/38451313.pdf (accessed 20 August 2009).

Palley, T. 2008. Financialization – what it is and why it matters. In *Finance-led capitalism? Macroeconomic effects of changes in the financial sector*, ed. E. Hein, T. Niechoj, P. Spahn, and A. Truger. Marburg: Metropolis.

Panico, C. 1985. Market forces and the relation between the rates of interest and profit. *Contributions to Political Economy* 4: 37–60.

Phillips, Kevin. 1996. *Arrogant capital: Washington, Wall Street, and the frustration of American politics*. New York: Little, Brown and Company.

Phillips, Kevin. 2002. *Wealth and democracy: A political history of the American rich*. New York: Broadway Books.

Piketty, T., and E. Saez. 2006. The evolution of top incomes: A historical and international perspective. *American Economic Review* 96, no. 2: 200–5.

Pivetti, M. 1985. On the monetary explanation of distribution. *Political Economy* 1: 73–103.

Pivetti, M. 1988. On the monetary explanation of distribution: A rejoinder to Nell and Wray. *Political Economy* 4: 275–83.

Pivetti, Massimo. 1991. *An essay on money and distribution*. Basingstoke: Macmillan.

Power, D., G. Epstein, and M. Abrena. 2003a. Trends in rentier incomes in OECD countries: Estimates, data and methods. PERI working paper no. 58a.

Power, D., G. Epstein, and M. Abrena. 2003b. Individual country technical notes for: Trends in the rentier income share in OECD countries, 1960-2000. PERI working paper no. 58b.

Skott, P., and S. Ryoo. 2008. Macroeconomic implications of financialization. *Cambridge Journal of Economics* 32, no. 6: 827–62.

Sraffa, Piero. 1960. *Production of commodities by means of commodities*. Cambridge: Cambridge University Press.

Stockhammer, Engelbert. 2004. Financialization, shareholder value and the theory of the firm: Financialization and management priorities. In *The rise of unemployment in Europe. A Keynesian approach*. Cheltenham: Edward Elgar.

Stockhammer, E. 2006. Shareholder value orientation and the investment profit puzzle. *Journal of Post Keynesian Economics* 28, no. 2: 193–215.

Tytelle, F., and I. Jaumotte. 2007. How has the globalization of labor affected the labor income share in advanced countries? IMF working paper 07/298.

Williams, K. 2000. From shareholder value to present day capitalism. *Economy and Society* 29, no. 1: 1–12.