Economy and Society
Publication details, including instructions for authors and subscription information:
http://www.informaworld.com/smpp/title~content=t713685159

Shifting sources and uses of profits: sustaining US financialization with global value chains

William Milberg

Online Publication Date: 01 August 2008

To cite this Article: Milberg, William (2008) 'Shifting sources and uses of profits: sustaining US financialization with global value chains', Economy and Society, 37:3, 420 — 451

To link to this article: DOI: 10.1080/03085140802172706
URL: http://dx.doi.org/10.1080/03085140802172706

Economy and Society Volume 37 Number 3 August 2008: 420–451

Shifting sources and uses of profits: sustaining US financialization with global value chains

William Milberg

Abstract

This paper links the financialization of non-financial corporations to the extensive development of global value chains by these corporations. The main focus is the US and its offshoring in China. Financialization has encouraged a restructuring of production, with firms narrowing their scope to core competence. And the rising ability of firms to disintegrate production vertically and internationally has allowed them to maintain cost mark-ups – and thus profits and shareholder value – even in a context of slower economic growth. The resulting rise in the profit share has not supported dynamic gains from offshoring as often predicted, since financialization pressures have reduced fixed investment to allow for higher dividend payments, share buybacks, M&A activity and other financial asset purchases. The paper explores the sustainability of the global value chain–financialization link and its operation in other industrialized countries. The conclusion briefly considers the role of the non-financial corporate sector in the face of the current financial sector decline.

Keywords: profit share; financialization; global value chains.

Introduction

Research on global value chains has contributed to an understanding of how globalized production processes are governed. The focus has been on the

William Milberg, Department of Economics, New School for Social Research, 79 Fifth Avenue, 11th Floor, New York, NY 10003, USA. E-mail: milbergw@newschool.edu

ISSN 0308-5147 print/1469-5766 online
DOI: 10.1080/03085140802172706

nature of the lead firms, their relation to supplier firms and the prospects for 'industrial upgrading' by these suppliers. This has connected the research to questions of economic development and business management. But to date the value chain literature has not considered in any detail the implications of globalized production for the flow of funds or what has become widely known as 'financialization'. Williams (2000) is quite critical about this lacuna in the global value chains framework:

> [T]he concept of commodity chain, as popularized by Gereffi and Korzeniewicz (1994), was widely accepted as unproblematic even though this was a completely inadequate way to represent the financially motivated matrix choices of a firm like Ford which variably combines component production, car assembly, finance, car rental and after-market services.
>
> (Williams, 2000, p. 6)

This paper is an effort to begin to fill the void to which Williams refers. I focus in particular on US lead firms and their low-cost suppliers. I argue that the enormous expansion of global value chains has brought a lowering of input costs to lead firms, allowing them to maintain and even increase cost mark-ups, and thus profit rates and the economy-wide profit share, even during a period when domestic (US) product market prices were not moving upwards at historical rates. This shift in the sources of profits – from domestic product markets to foreign input markets – has had a number of financial implications. For one, it has contributed to the maintenance of profit rates and the increase in the profit share of national income in industrialized countries. This has coincided with a decline in manufacturing in most countries, and thus has permitted companies to return a greater share of net revenues to shareholders rather than reinvesting these revenues in new productive capacity. In the financialization literature this is attributed to the 'shareholder value revolution' that began in the 1980s. In the global value chains literature, the process is seen as the increasing focus on 'core competence', a managerial strategy that became popular around the same time.[1] Second, export revenue growth in developing countries resulting from the expansion of global supply chains has been converted into rapid expansion of manufacturing productive capacity in low-wage countries and, in turn, into capital flows from the low-wage to the industrialized countries. The latter constitutes a 'reverse capital flow', supporting asset values in the industrialized countries and especially the US. This provides further impetus to the process of financialization.

This paper is thus an effort to go beyond the inclusion of financial activities in 'matrix choices' of firms, in order to explore the interdependence of the processes of the globalization of production and financialization, that is, to link the issue of corporate governance to that of supply-chain governance. I find that the globalization of production by US firms has helped to sustain higher levels of financialization of the US non-financial corporate sector and this financialization creates greater incentives for cost-reducing and flexibility-enhancing offshore production by US lead firms. To put it differently, the

sustainability of a 'finance-led growth regime' – questioned, for example, by Boyer (2000) and Watson (2007) – is enhanced by the successful governance of global value chains by lead non-financial corporations. In the current financial sector crisis, it is precisely the non-financial corporate sector that some point to as the lynchpin of an economic recovery. The deep engagement of this sector in global value chains will affect its ability to play such a role effectively.

This paper contains seven sections. The second section reviews the processes of financialization and global value chains. In the third section I take up the issue of the shifting sources of profit and the following section looks at the changing uses of profit. These sections focus largely on the US and its international trade with low-income countries. The fifth section looks briefly at the situation from the perspective of the leading low-wage trading partner of the US, China, and its trade, investment and capital flows. The sixth section explores the issues of sustainability and replicability in the inter-dependent relation between global value chains governance and financialization. The seventh section concludes with a brief discussion of how the financialization–globalization link may evolve in response to the recent financial sector collapse, the weakening of the US dollar and the recession in the US. The task of linking value chain analysis to the issue of financialization is complicated by data limitations. In particular, while lead firm profit data are readily available, precise measures of these firms' reliance on imports within global value chains are not public. Information on costs and revenues of supplier firms in many low-income countries are difficult to trace.[2] Supplier market structures have not been widely measured. As a result, in this paper I use a number of proxy measures to identify the links between global value chains and financialization. Nonetheless, the picture suggests a strong link between governance of global value chains and the dynamics of corporate governance in the case of the US since the mid-1980s.

Financialization and globalization: definitions and origins

Financialization and globalization of production have both been much discussed in popular and academic circles. Since both terms also have multiple meanings, it is useful to briefly explain their use in this paper. Financialization is defined in three ways in the recent literature: (1) a greater share of GDP or net worth in the industrialized countries is accounted for by the financial sector;[3] (2) gross international capital flows have grown much faster than world output and faster than trade in goods and services;[4] (3) non-financial firms have increasingly used finance rather than production as both a source and a use of their funds.[5]

In this paper I will consider mainly (3), that is, the increasingly financial emphasis of non-financial corporations or, as Stockhammer puts it 'the engagement of non-financial businesses in financial markets' (2004, p. 7). This new focus is not just the provision of financial services as part of the

corporations' product lines, but the increase in the share of assets of the firm that are financial and the increased use of firm profits to raise shareholder returns, through dividend payments, share buy-backs and even through mergers and acquisitions.

Many analysts see financialization as the defining characteristic of the world economy of the last twenty-five years, and offer at least two explanations of the surge in the importance of finance in the macro-economy at the level of the non-financial firm. The most fully developed explanation is the shareholder value revolution, according to which the assertion of shareholder rights beginning in the 1980s shifted power in corporate governance from managers to shareholders, bringing to the fore a concern with the maximization of shareholder value. This resulted in a change in corporate strategy from the Chandlerian concern with firm growth, through retaining profits and reinvesting them, to an emphasis on shareholder value and short-run return on investment through downsizing the firm and distributing a greater percentage of profits back to shareholders with the use of higher dividend payments and an increased volume of share buy-backs. Share buy-backs raise share prices by reducing the supply of outstanding shares. A decline in labour union bargaining power and the expansion of stock options in CEO compensation are also cited as factors consistent with this managerial shift. While most of the research on financialization finds that it is well established in corporate practices in many countries, Froud *et al*. (2000) express scepticism of the extent to which it has in fact boosted shareholder returns.

A second explanation, not incompatible with the first, is that financialization resulted from a change in the gap between the rate of return on manufacturing investment and the rate of return on investments in financial assets (see Dumenil & Levy, 2005; Crotty, 2005). On the side of returns in finance, real interest rates got a boost in the late 1970s with tight monetary policy and the deregulation of financial markets. Interest rate ceilings on deposits were removed, encouraging banks and money market funds to invest in higher return (and riskier) assets such as 'junk bonds' (Lazonick & O'Sullivan, 2000). On the side of manufacturing, the emergence of Japan as a major US competitor beginning in the late 1970s cut into profits directly, especially in automobiles and electronics. Indirectly, the increased investment in manufacturing, beginning with Japan and then across East Asia, eventually brought chronic global excess capacity, lowering the rate of return on manufacturing and services investments.

With both sides of the finance/industry divide moving in favour of finance, the incentives for investment switched from industry to finance. According to Dumenil and Levy, 'the rise of interest rates biased capital allocation in favor of financial investment...capitals "rushed" toward financial corporations when the profit rate in this sector soared' (2005, p. 39). There were two dimensions of the transformation. One is that the net worth of financial corporations rose steadily relative to the net worth of non-financial corporations. Second, traditionally non-financial firms became more like financial holding companies, with a

spectrum of financial services and financial investments swamping production in terms of their contribution to company revenues.

Largely coincidental with financialization in the 1980s was a growing tendency by firms to break up the process of producing goods and services and locate different parts in different locations depending on costs, markets, logistics or politics. This globalization of production has been variously described as 'slicing up the value chain', 'vertical disintegration', 'offshoring' and the 'globalization of production'. Global value chains are production processes that may be managed by lead firms through vertical integration, through arm's-length subcontracting with supplier firms or through various intermediate forms of arrangement (see Gereffi, Humphrey & Sturgeon, 2005). Although offshoring has a long history for US companies (for example, according to Hamilton *et al*. (2006), the creation of Asian suppliers for large US retail firms began in the late 1960s), it was in the 1990s that managing the global supply chain became in itself an important 'strategic asset' for US companies in their competition with low-cost and flexible Japan and increasingly innovative Europe (Lynn, 2005, p. 123).

Most attempts to measure the magnitude of the phenomenon of vertical disintegration have captured only parts of the process. Some analysts focus on intra-firm imports and others on the import of intermediate goods whether these are intra-firm or arm's-length. As a share of total trade, US intra-firm trade has been fairly constant at around 40 per cent of imports since the early 1980s. US 'related party trade', defined as trade between entities in which a US firm has at least 5 per cent ownership on both sides has remained at about 45 per cent of total imports for over fifteen years. But related party trade is particularly high for some regions (Latin America, especially Mexico with 60 per cent of its exports in 2005 defined as 'related party') and is rising rapidly from low levels for others (East Asia, in particular 58 per cent of US–Korean trade and 26 per cent of US–Chinese trade in 2005) (see Grossman & Rossi-Hansberg, 2006, chart 2). Nonetheless, the relative constancy of intra-firm trade in total US trade indicates that arm's-length trade continues to dominate US trade flows.

Economists measure offshoring by the extent of reliance on imported inputs relative of total input use at the aggregate or the sectoral level. By this method – relying mainly on input–output tables – offshore outsourcing has grown slowly but steadily since the early 1990s. Recent studies find the share of imported goods and services inputs as a percentage of non-energy inputs to have reached 18 per cent in the US, 25 per cent in Germany and 31 per cent in the UK. This generally reflects slow but steady growth in goods offshoring intensity and more rapid growth (from a much lower base level) of offshoring intensity for services.[6] Much of the recent focus has been on services offshoring, both because such categories as 'business, professional and technical services' have seen explosive growth in trade and because this type of trade now affects not just low-skilled manufacturing sector workers, but high-skilled information and computer technology workers as well. A recent

study estimates that 30 to 40 million current US jobs are likely in the future to involve 'impersonally delivered services' and thus be potentially subject to offshoring. This estimate is equivalent to 22 to 29 per cent of the current American workforce (Blinder, 2007; also see Lazonick, 2007).

Other studies, employing slightly different definitions, give an even more dramatic picture of the US reliance on the import of intermediates. Bardhan and Jaffee (2004) find that imported intermediates accounted for 38 per cent of US imports in 1997. Yi (2003) calculates that trade in intermediates accounted for over 50 per cent in the growth of US trade in the period 1962–97.

Trade in intermediates can take place on an intra-firm or arm's-length basis. So the focus on intra-firm or related party trade captures only a part of the offshore outsourcing phenomenon. Similarly, a focus on trade in intermediates understates the importance of global production networks. The US is not simply an assembly economy. Many of the imports within US-led global value chains are fully finished goods with labels of US corporations attached. Many 'manufacturing' firms now do no manufacturing at all, providing only brand design, marketing, supply chain logistics and financial management services. Thus a better measure of offshore outsourcing may simply be imports from low-wage countries. These are shown for the US in Figure 1 as a percentage of

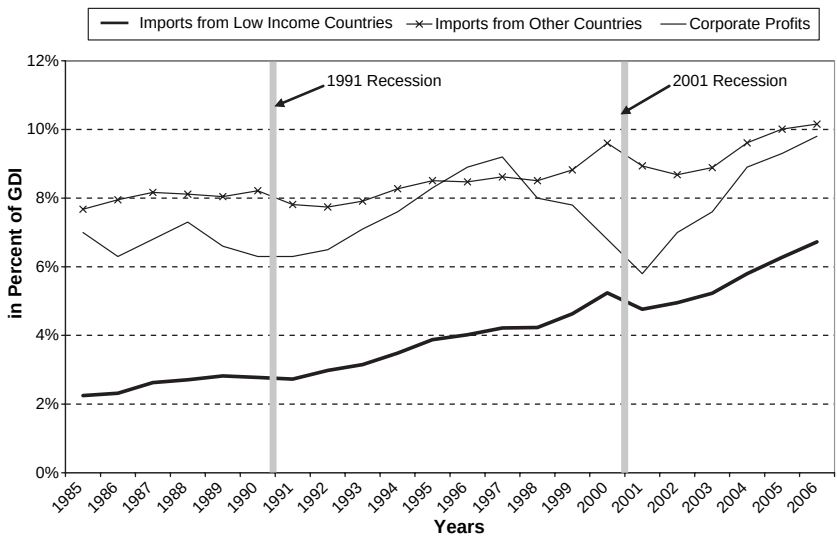

Figure 1 US imports and the profit share, 1985–2006

Sources: income, corporate profits and imports are taken from the National Income and Product Accounts of the US as reported by the Bureau of Economic Analysis (BEA), Table 1.11, line 17. Country breakdown of imports follows The Economic Report of the President, published annually by the US government.

Note: Low income countries are countries other than the Euro area, Canada, Japan, United Kingdom and OPEC. Imports and corporate profits are depicted as shares of gross domestic income.

US gross national income. This measure leaves out offshoring activity among industrialized countries, but nonetheless overcomes the problem of looking only at intermediates or only at intra-firm trade. Also shown in Figure 1 are other US imports. Since the early 1990s, the share of US imports coming from low-income countries has grown more rapidly than imports from other countries. Imports from low-income countries rose from less than 3 per cent in 1980 to almost 7 per cent of gross domestic income in 2006. At the same time, imports from other countries rose from 8 to 10 per cent of national income.

China accounts for a significant portion of the rise in US imports from low-income countries. US imports from China rose from $16 billion in 1990 to $322 in 2007 (Table 1). The US ran an overall trade deficit of $712 billion in 2007 and a bilateral deficit with China of $256 billion. Although in some cases US imports from China have replaced those from other low-income countries, in general over the past fifteen years US imports of manufactured goods have increased from across East Asia and Latin America, especially Mexico.

Shifting sources of profit

The motives for offshoring range from the pursuit of greater flexibility, to diversification of location in order reduce risk, to the lowering of production costs. All these goals should support company profitability. And, in fact, the

Table 1 US goods and services trade with China, 1990–2007

	Billions of current US $		
Year	Imports	Exports	Balance
1990	16.3	4.8	−11
1991	20.3	6.3	−14
1992	27.4	7.5	−20
1993	33.5	8.8	−25
1994	41.4	9.3	−32
1995	48.5	11.7	−37
1996	54.4	12.0	−42
1997	65.8	12.8	−53
1998	75.1	14.3	−61
1999	86.5	12.9	−74
2000	106.2	16.0	−90
2001	109.4	19.2	−90
2002	133.5	22.1	−111
2003	163.3	28.4	−135
2004	210.5	34.7	−176
2005	259.8	41.8	−218
2006	305.8	55.2	−251
2007	321.5	65.2	−256

Source: IMF, *Direction of Trade Statistics*, online.

last decade of heightened globalization of production has coincided with an increase in profits as a share of national income in all the major industrialized countries. Figure 1 shows the US corporate profit share (measured by corporate profits as a percentage of gross national income) for the period 1986–2006, along with import trends discussed above. After falling from post-Second World War highs in the mid-1960s, the profit share recovered beginning in the mid-1990s. It has been higher during the last two business cycles than at any time since the 1960s. In other industrialized countries, the rise in the profit share has been even more pronounced than in the US.[7]

Product markets and product prices

What is behind this rise in the share of national income going to corporate profits? At the level of the firm, corporate profits depend on the ability of corporations to raise their mark-up prices above direct costs. There are three channels to maintaining or raising the mark-up over costs: raising product price, lowering input prices and raising productivity. Raising the product price is the traditional channel for firms with product market power. And demand-side conditions have been the focus of the theory of oligopoly pricing. Despite this theoretical focus on product markets and the demand elasticity, it would appear that over the past ten years the rising profit share has not depended on rising final goods and services prices. An increase in price competition in product markets among oligopoly firms – especially in the retail sector, but also in sectors as technologically diverse as automobiles and computers – has made the firm's implicit cost of raising the price prohibitively high.

Non-price competition among large oligopoly firms has also been intense, as firms have turned to product differentiation and branding to solidify their product market power. Giant retail firms boast of a designer line of consumer goods, changing as seasons and fashions change. In the apparel industry, 'fast fashion' is the name given to those firms that are able to alter each store's offerings within days, based on the latest trends and buying patterns at that particular store (see Abernathy *et al.*, 1999). Variety in consumer goods – from fancy coffees to household appliances to cell phones – has exploded, in part the result of greater flexibility in production and better data collection on consumption patterns. This ability of large firms to broaden product lines, so-called 'mass customization', has been an effective corporate response to rising consumer power and the heightened demand for variety and quality.[8]

Price inflation (especially prices of non-energy goods and services) has nonetheless fallen steadily from its post-War peaks in the 1970s, and remained low across industrialized countries during the same period that the profit share has been rising. In a study of the low levels of OECD price inflation over the past twenty years (and even deflation in some cases), Rogoff (2003) notes that US monetary policy – the usual first explanation of inflation trends – has not been so tight but that input costs, including the cost of labour and non-labour

Table 2 Prices and money supply, average annual growth, 1986–2006

	1986–1990	1991–1995	1996–2000	2001–2006
Consumer prices	4.43%	3.54%	2.38%	2.14%
Import prices	5.36%	2.02%	−1.37%	0.70%
Money supply (M2)	5.65%	1.84%	8.62%	6.19%

Notes: Consumers Price Index data are from the BLS and refer to the base CPI for all urban consumers for all items less food and energy. Import prices data are from the BLS and refer to import price index for all items less petroleum. Money supply (M2) is from the IMF International Financial Statistics Database and comprises the sum of currency outside banks, demand deposits other than those of the central government and the time, savings and foreign currency deposits of resident sectors other than the central government.

inputs, have risen very slowly, with the exception of occasional commodity price surges. Table 2 shows the average annual percentage change in consumer prices, money supply and import prices for the US over the period 1986–2006. We see that on average the inflation rate in the US (based on the consumer price index excluding food and energy-related goods) has been running at around 2 per cent per annum since the mid-1990s. During the same period, money supply growth rose by over 7 per cent per annum. We return to the role of import prices below.

Price competition has increased while final goods and services markets have remained fairly concentrated by traditional measures of concentration. Nolan, Sutherland and Zhang (2002) identify a broad range of industries with high degrees of concentration as measured by market share, including commercial aircraft, automobiles, gas turbines, microprocessors, computer software, electronic games, as well as branded consumer goods, including soft drinks, ice cream, tampons, film and cigarettes, and services such as brokerage for mergers and acquisitions and insurance. These authors characterize the increase in industrial concentration internationally as a 'global big business revolution'. This revolution, they write, 'produced an unprecedented concentration of business power in large corporations headquartered in the high-income countries' (Nolan, Sutherland, & Zhang, 2002, p. 1).

While branding and product variety have figured in corporate strategies, higher profits have also come from dramatic efforts to control costs. To maintain the mark-up without the traditional ability to raise product prices, unit costs must be reduced or productivity increased. Two issues have received a lot of attention, the relative stagnation of US wages and the gains in productivity, especially those related to the introduction of new information technology.[9] While these are no doubt of major importance, here I raise the possibility of a third source, which is international offshoring, that is, the effective management of global value chains.

Productivity, scale and mark-up effects of GVC governance

Orthodox theories of offshoring capture two types of welfare gains: static and dynamic. In the static version, offshoring results from new possibilities for a more refined division of labour, the result of technological change (in particular the internet) that lowers the cost and raises the efficiency of managing a global supply chain.[10] From this perspective, the fragmentation of production, including the offshoring of intermediate services, enhances the gains from trade beyond those achieved when trade is limited to final goods and services. According to Arndt and Kierzkowski:

> spatial dispersion of production allows the factor intensity of each component, rather than the average factor intensity of the end product, to determine the location of its production. The international division of labor now matches factor intensities of components with factor abundance of locations....[E]xtending specialization to the level of components is generally welfare-enhancing.
>
> (Arndt & Kierzkowski, 2001, pp. 2, 6)

As in the standard trade theory regarding *final* goods, the expansion of offshoring resulting from liberalized trade will bring winners and losers within each country (the so-called Stolper-Samuelson effect) and the overall gain to the country (a Pareto improvement) depends on compensation of losers by the winners. The apparent bias against low-skilled labour in much of the trade expansion of the past decade has led to a host of empirical studies of the impact of offshoring of goods and services on the wages of high-skilled workers relative to low-skilled workers.[11]

It is the dynamic version, however, that provides the strongest support for the benefits of offshoring. In this view, cost savings from offshoring are effectively productivity gains that lead to a decline in the price of inputs and outputs, and thus greater demand for inputs and outputs and consequently higher investment, which in turn raises productivity further through the capture of economies of scale. These productivity and scale effects are at the core of the dynamic theory.[12]

In addition to the productivity and scale effects, there is a mark-up effect, according to which the lead firm in the global value chain is able to raise the mark-up over costs, not in the traditional oligopoly fashion of raising product prices, but through the control of input costs. This effect is implicit in the productivity effect, but in the dynamic model it is assumed that the productivity gain will lead to higher rates of firm investment in the cheaper inputs as well as in other inputs, and new plant and equipment. The mark-up effect, however, leaves open the possibility of a *leakage* from this investment flow, in particular the purchase of financial assets or other expenditures (e.g. dividend payments) that raise shareholder value. This is the first link between the governance of global value chains and the process of financialization. The second link, discussed in more detail below, is the capital inflow from trade

surplus countries, spurred in part by high returns on equity resulting from financialization.

The mark-up effect is considered particularly important in a number of recent papers building on non-orthodox economic theories and in particular on asymmetries in the structure of input markets along global value chains. Specifically, the creation of monopsonistic buyer relations in global supply chains has allowed some shifting in the source of corporate profits: from traditional oligopoly pricing power in product markets to oligopsony power in global supply chains in which lead firms have greater control over input prices and greater flexibility due to the presence of multiple, competing suppliers. Milberg (2004) describes the market structure asymmetry as endogenous to lead-firm governance strategy. Heintz (2006) proposes a model of unequal exchange, in which lead-firm branding effort is a function of lead-firm bargaining power in the value chain. Blecker (2008) identifies the 'degree of monopoly' of firms as important to their ability to adjust the mark-up in response to tariff and exchange rate changes and in the process to raise the aggregate profit share. We should note that, in addition to the direct cost reduction, the move offshore, or even its threat, can lower wage demands and dampen domestic wages, reinforcing the positive relation between offshoring and the mark-up.[13]

Mark-ups and the profit share: the role of imports

There is a growing body of research on the issue of the impact of offshoring on profits. Firm-level surveys, for example McKinsey Global Institute (2003), find that offshoring reduces costs to the firm by around 40 per cent for the outsourced activity. Dossani and Kenney (2003, p. 7) report that a 40 per cent cost saving represents the hurdle rate of return on services offshoring. A number of large firms they survey reported savings considerably higher than this. Lazonick (2007) cites reports of 50–60 per cent cost saving for offshoring of business, professional and technical services.[14] Using US sectoral data, Milberg and von Arnim (2006) present estimates of a multivariate model of the profit share, adding a measure of offshoring while controlling for variables commonly used in models of the profit or wage share, including the sectoral share of total employment, labour productivity and capital intensity. They find that offshoring has a statistically significant and positive relation to profits (measured as the 'gross operating surplus') at the level of specific sectors.

A number of studies have confirmed the role of offshoring in the change in the distribution of income between labour and capital at the aggregate level. Harrison (2002) studies the relation between trade openness and functional income distribution across a large number of countries and finds – contrary to the prediction of the Heckscher-Ohlin theory of trade in some cases – that openness is generally associated with a lower labour share of national income. Harrison concludes that 'rising trade shares and exchange rate crises reduce

labor's share, while capital controls and government spending increase labor's share'. A study by the IMF (2006) finds that offshoring is a small, but nonetheless negative and significant factor in the determination of the labour share of income for a group of OECD countries. In this same study, three aspects of globalization (related to prices, offshoring and immigration) combined to play a large role in explaining the declining labour share. Guscina (2006) does not use an offshoring variable *per se*, but finds that trade openness, imports from developing countries and outward foreign direct investment all contributed to the fall in the labour share of national income in a sample of eighteen industrialized countries over the period 1960–2000 (in this case, consistent with Heckscher-Ohlin). Moreover, she finds that this effect is much stronger during the period 1985–2000.[15]

There is reason to think that these studies may understate the contribution of the operation of global value chains to corporate profits. For one thing, as discussed above, most measures of offshoring used in economic studies look only at either intra-firm trade or trade in intermediates. If we look at all imports from low-income countries as a share of national income (see Figure 1) we may find a larger effect. Imports from low-income countries have risen to almost 7 per cent of US gross domestic income. Using a crude figure of a 40 per cent cost saving from foreign over domestic sourcing, this would translate to 2.8 per cent of national income, a substantial magnitude in relation to the corporate profit share of income that was around 10 per cent in 2006. Second, the cost savings from shifting to cheaper imports (especially in intermediate services) have to some extent been counted in the official statistics as productivity gains, implying that these gains are 'misleading' (Houseman, 2006).[16] Third, a growing share of US profits comes from foreign operations – up to 30 per cent in recent years. Although these profits are more than offset in the balance of payments by the flow of profits to foreign companies operating in the US, they are nonetheless a function of global production and sales strategies. Fourth, some of the gains to the highest-income 'workers' – for example, CEO stock options, hedge fund manager bonuses – might be more appropriately counted as profit income.

It is difficult to assess the structure of markets or the degree of competition along global value chains, since there is very little direct information on market structure across a range of supplier markets. Using data on 339 firms over the period 1980–95 in Brazil, India, Jordan, Korea, Malaysia, Mexico and Zimbabwe, Glen, Lee and Singh (2003) find that profits are less persistent than for a sample of industrialized countries, indicating a greater degree of competition in the developing country markets. Mayer (2000) looked at sectors from a global perspective and documented the number of countries entering a sector as a measure of increased competitive conditions. He finds the greatest amount of entry was in low- and medium-technology industries since the mid-1980s.

Given this paucity of direct information, another approach is to observe the movement of the unit prices of imported goods and services relative to final

Table 3 Relative import price of manufacturers, average annual percentage change, 1986–2006

Sectors	1986–2006 average annual percentage change
33—Petroleum, petroleum products and related materials	7.45%
28—Metalliferous ores and metal scrap	3.34%
68—Nonferrous metals	3.14%
25—Wood pulp and recovered paper	1.15%
24—Cork and wood	1.07%
67—Iron and steel	0.83%
54—Medicinal and pharmaceutical products	− 0.01%
63—Cork and wood manufactures other than furniture	− 0.21%
73—Metalworking machinery	− 0.23%
72—Machinery specialized for particular industries	− 0.25%
11—Beverages	− 0.41%
74—General industrial machinery, equipment, & machine parts	− 0.55%
66—Nonmetallic mineral manufactures	− 0.55%
05—Vegetables, fruit and nuts, fresh or dried	− 0.58%
01—Meat and meat preparations	− 0.62%
52—Inorganic chemicals	− 0.86%
03—Fish, crustaceans, aquatic invertebrates and preparations thereof	− 0.91%
51—Organic chemicals	− 1.02%
64—Paper and paperboard, cut to size	− 1.03%
69—Manufactures of metals	− 1.03%
59—Chemical materials and products	− 1.05%
78—Road vehicles	− 1.11%
83—Travel goods, handbags and similar containers	− 1.16%
87—Professional, scientific and controlling instruments and apparatus	− 1.36%
65—Textile yarn, fabrics, made-up articles, nes and related products	− 1.43%
89—Miscellaneous manufactured articles	− 1.49%
82—Furniture and parts thereof	− 1.60%
55—Essential oils; polishing and cleansing preps	− 1.63%
85—Footwear	− 1.64%
84—Articles of apparel and clothing accessories	− 1.84%
81—Prefabricated buildings; plumbing, heat & lighting fixtures	− 1.96%
88—Photographic apparatus, equipment and supplies and optical goods	− 2.13%
62—Rubber manufactures	− 2.23%
77—Electrical machinery and equipment	− 2.89%
07—Coffee, tea, cocoa, spices, and manufactures thereof	− 3.27%
76—Telecommunications & sound recording & reproducing apparatus & equipment	− 4.81%
75—Computer equipment and office machines	− 7.81%

Source: US Department of Labor, Bureau of Labor Statistics online database.
Note: Import price movements are calculated as relative to changes in US consumer prices. Sector numbers listed are two-digit SITC.

goods prices. Increasingly oligopsonistic conditions in supplier markets would be expected to be reflected in falling import unit values. Excluding food and oil, US import prices have fallen very slightly on average since the mid-1990s (see Table 1). But import price deflation is much more pronounced in those sectors in which global value chains are most developed. Table 3 shows import prices (relative to US domestic consumer prices) over the period 1986–2006 for two-digit SITC manufacturing industries. Only two sectors – and those most closely associated with commodities (specifically petroleum and iron) rather than manufacturers – experienced import price increases. Relative import price declines were smallest in manufacturing sectors most intensive in foods, metals and wood. Import price declines were greatest in those sectors which have both the technological and the value chain characteristics identified with profitable offshore outsourcing – computers and electrical and telecommunications products. But many of the non-electronics manufacturing sectors showed large and persistent import price declines, especially those with well-developed global value chains and high rates of import penetration in the US. Clothing, footwear, textiles, furniture, miscellaneous manufacturers (which includes toys) and chemicals all experienced import price declines (relative to US consumer prices) over two decades of more than 1 per cent *per year* on average, or 40 per cent over the period 1986–2006. While these data do not prove the existence of oligopsony power in the global value chains, they are consistent with it. They are also consistent with a number of studies that have identified the declining terms of trade of developing-country manufacturers as the consequence of a 'fallacy of composition', whereby the expansion of manufacturing export capacity in one country makes sense for that country alone, but when many countries expand at the same time, the resulting system-wide excess capacity creates declining prices globally (see Mayer, 2000; Kaplinsky, 2005; Razmi & Blecker, 2008). The greater the capacity overhang, the greater is the ability of lead firms to exert oligopsony power in input markets. From the lead-firm perspective, excess capacity and the steady arrival of new entrants in supplier markets serve the purpose both of cost reduction and of greater flexibility (with the possibility of multiple suppliers). According to Lynn:

> [A] growing number of large firms today view the rise and fall of prices for inputs like labor and raw materials not as a problem to be smoothed out by shelling out capital to bring more activities under the direct control of the firm's management, but rather as a never-ending opportunity to ratchet down costs and hence perpetuate profit margins. And so today's top firms are increasingly designed to play country against country, supplier against supplier and worker against worker. General Electric CEO Jeffrey Immelt put it succinctly in a recent annual report. The 'most successful China strategy,' he wrote, 'is to capitalize on its market growth while exporting its deflationary power.'
>
> (Lynn, 2005, p. 153)

The oligopsony structure of input markets in global value chains also has specific implications for the governance of these chains. In the Coase tradition, internalization is explained as the result of firms seeking to minimize transactions costs in situations in which organizing production within the firm is more efficient than doing it by means of the market. With the current trend apparently in the opposite direction, that is, with more arm's-length relationships within the value chain for particular commodities, the Coasian logic would imply that there has been a reduction in transaction costs in market-based relations. These are attributed to technological and legal developments that make markets more efficient (e.g. Langlois, 2003).

An alternative interpretation presented here is that externalization has developed from the logic of vertically integrated markets, with continued pressure on competition among suppliers, offloading of risk and increased focus on 'core competence' all aimed at raising shareholder value. Specifically, when suppliers have the capacity to act as monopolists there will be a greater incentive for buyers to internalize supply production. When there is a high degree of competition among suppliers, then arm's-length relations between buyer and supplier are more likely. The persistently high share of arm's-length trade in US imports, despite these reduced transactions costs, indicates that there may be other factors influencing the ownership structure along global value chains. According to Strange and Newton:

> If there are a large number of competitive suppliers of raw materials and/or intermediate goods, then the corporation might well choose to externalize production in order to (a) reduce the risks associated with the commitment of resources, and (b) save capital for other activities. One might also put forward a further advantage, namely that a monopsonistic buyer would be able to push down the prices of supplies to marginal cost and thus extract the full profits from the sales of the final goods from a smaller capital stake – i.e. the buyer would show a higher return on capital. If there were but a few suppliers, in contrast, then there would be a situation of bilateral monopoly (or oligopoly) and conventional internalization arguments might dictate vertical integration.
>
> (Strange and Newton, 2006, p. 184)

From our perspective, the managerial focus on core competence is the flip side of the picture we have presented here of the development of oligopsony markets for inputs which no longer yield rents and thus are, from the lead firm perspective, better subcontracted at arm's length. As Watson writes, 'Disinvestment is the only certain way of increasing shareholder value: that is, selling off or closing down all but the most profitable parts of the business. This is guaranteed to generate higher returns on capital employed, thus providing a rationale for an increase in the stock price' (2007, p. 4). The point is that offshoring has had a dual role, one being the support of cost mark-ups, the other being the reduction of the scope of productive activities of the firm. As we will see in the next section, both of these aspects of corporate strategy support the process of financialization.

Shifting uses of profit

The shift in the source of profits also has implications for their use. Specifically, the increased reliance on low-cost imports for cost control has reduced the need for reinvestment of profits domestically, and thus eased the traditional managerial pressure against returning earnings back to shareholders.[17] I argued in the previous section that the asymmetry of market structures along global value chains has provided an incentive for arm's-length relations as opposed to vertical foreign direct investment. With a higher profit share and thus a significant growth in profit income in the past ten years – partly the result of offshore outsourcing – US non-financial companies have been 'awash in cash' and have faced a decision over what to do with these funds.[18] The traditional managerial strategy of using retained earnings to finance new investment had resulted in relatively high levels of investment out of profits and considerable power for top-level managers. Studies of industrial organization in the 1970s stressed that managers preferred internal funds to external borrowing because this raised managerial discretion over the allocation of funds and allowed managers to focus on company growth over the long term rather than on short-term shareholder returns.[19]

With the shareholder value movement, beginning in the 1980s, efforts were made to reduce the discretion of managers, as pressure rose to return earnings to shareholders, through both higher dividend payouts and higher share prices. The boosting of CEO compensation with stock options was intended to better align manager and shareholder interests. By the mid-1980s, the structure of the flow of funds of the non-financial corporate sector in the US was beginning to change. By the 1990s, this was reflected also in lower rates of investment in plant and equipment out of after-tax profits. Orhangazi (2008) confirms this, finding a robust and negative relation between financialization and investment in a firm-level econometric study of the US non-financial corporate sector.

We can see these trends in the national income accounts data and the Federal Reserve's flow of funds data on the non-financial corporate sector. Figure 2 shows two measures of the profit share for the US, one based on gross operating surplus of the corporate sector and another that looks more narrowly at corporate profits as a share of gross domestic income.[20] By both measures the profit share has slowly, and with some cyclical variation, crept up to new highs in the peaks of the last two business cycles. The corporate profit share follows the pattern analysed by Wolff (2003) and others of a decline between the mid-1960s and the early 1980s and then a recovery thereafter. As the profit share has risen, investment as a share of corporate profits has not risen proportionally and by some measures has fallen.[21] Figure 3 shows two measures of investment. Fixed investment out of corporate profits has recently hit new lows. Investment as a share of GDP has recovered from its low levels in the early 1990s, but is still well below levels achieved in the 1970s. What use has the non-financial corporate sector made of its higher profits and profit share? The leakage to financial markets is clear. For example, dividend

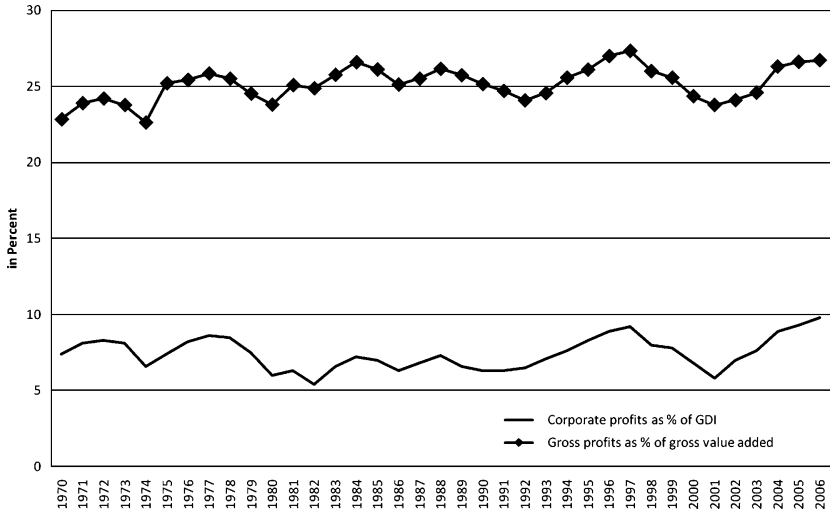

Figure 2 Gross profit share and corporate profit share, US, 1970–2006
Source: US Bureau of Economic Research, National Income and Product Accounts
Notes: Corporate profits are taken from NIPA table 1.11 line 17.
Gross profits are calculated by adding net operating surplus and consumption of fixed capital and dividing by gross value added of non-financial corporate business (NIPA table 1.14 lines 24 + 18/line 17).

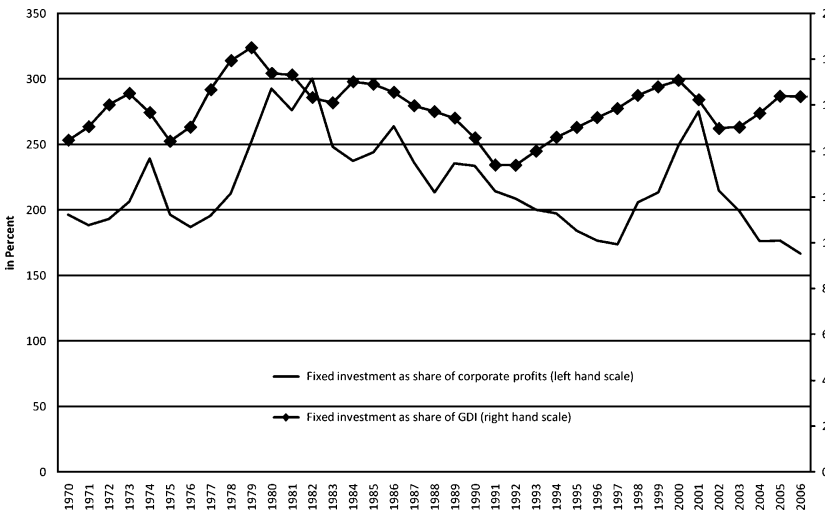

Figure 3 Investment shares, US, 1970–2006
Source: US Bureau of Economic Research, National Income and Product Accounts
Notes: Fixed Investment as reported in NIPA table Table 1.5.5, line 22.
GDI and corporate profits were taken from NIPA table 1.10 line 1 and line 17.

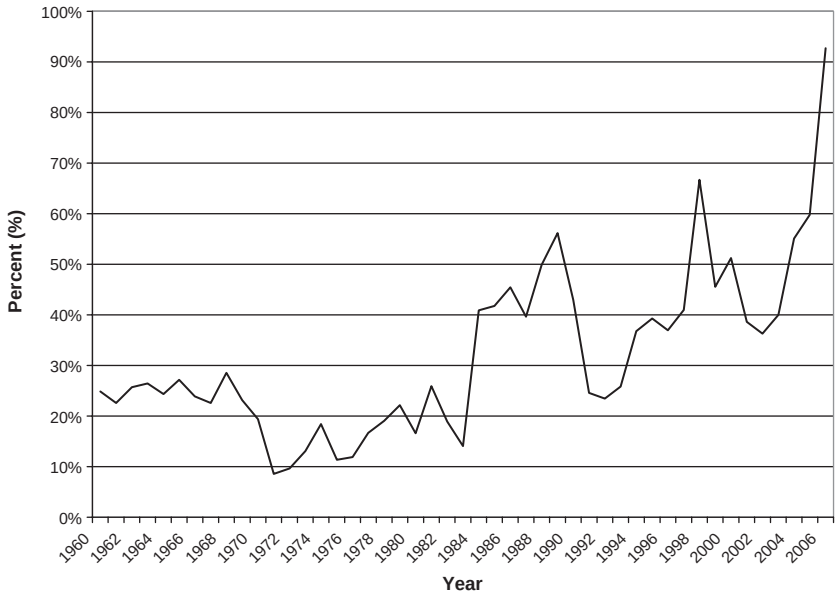

Figure 4 Dividends plus share buy-backs as a percentage of internal funds, US non-financial corporations, 1960–2006
Source: Schedule Z.1 of the Flow of Funds Account from the US Federal Reserve Bank online database

payments and share buy-backs have risen steadily (with cyclical fluctuations) as a share of internal funds in the non-financial corporate sector, taking off in the early 1980s from a plateau of around 20 per cent and reaching about 90 per cent by 2006 (Figure 4). This gives some indication of why fixed investment relative to profits has fallen.

Another potential use of corporate funds is for mergers and acquisitions. Like dividends and share buy-backs, merger and acquisition activity reached record levels over the last two business cycles. For the first five months of 2007, global M&A transactions valued $2 trillion, almost double the value for the same period in 2006. But it is not just the value of these transactions that has hit historic highs. As a recent report in the *Financial Times* notes, '[N]ot only has the overall volume of M&A been rising, but the proportion of those deals funded entirely by cash is on the rise as well. In the first quarter of 2004, all-cash deals were less than a third of all M&A by value. By the first quarter of this year they accounted for half' (Larsen, 2007). Heightened M&A activity is not just an indicator of financialization and (in this case) liquidity, but also a cause of financialization itself. It was the hostile takeover movement in the 1980s that solidified the shift to a 'portfolio view' of the large non-financial corporation. Finally, with domestic requirements for plant and equipment investment reduced, non-financial corporations have diversified into finance

Table 4 Dividends, share buy-backs and net income, selected Fortune 100 companies, 2006 ($US billions unless otherwise noted)

Company	Net income	Dividends	Share buy-backs	Dividends and buy-backs to net income ratio
Safeway	1.0	0.1	1.8	197.2%
Archer Daniels Midland	3.8	0.9	6.1	184.4%
Dupont	6.9	7.0	4.7	171.7%
Cisco	21.2	0.0	35.4	167.3%
Microsoft	48.4	43.1	36.1	163.9%
HP	13.7	4.6	14.3	137.5%
Dell	14.0	0.0	18.8	134.0%
Procter and Gamble	31.3	13.3	27.7	131.1%
Intel	30.0	6.4	30.8	123.8%
ConocoPhillips	51.1	25.1	35.5	118.5%
Pfizer	51.1	25.1	35.5	118.5%
Honeywell	6.1	3.3	3.8	117.9%
Boeing	7.9	3.6	5.3	113.0%
Walt Disney	10.8	2.3	9.7	111.1%
Federated	4.6	0.6	4.4	109.5%
Sysco	4.2	1.5	2.7	101.4%
Sprint Nextel	4.0	2.4	1.6	101.1%
Home Depot	20.4	4.1	16.4	100.0%
PepsiCo	20.5	6.9	13.1	97.9%
Northrup Grumman	5.0	1.6	3.0	93.1%
Coca-Cola	22.2	12.2	8.3	92.4%
McKesson	2.7	0.4	2.1	92.0%
Lockheed Martin	7.2	1.9	4.6	90.5%
Bristol Myers	12.2	10.9	0.2	90.5%
Cardinal Health	6.0	0.3	5.0	88.7%
Sunoco	2.8	0.5	2.0	87.7%
McDonald's	10.8	3.6	5.8	87.1%
Verizon	28.6	21.8	2.3	84.6%
Caterpillar	10.3	2.9	5.8	84.1%
Johnson and Johnson	43.1	16.4	17.5	78.9%
Abbott	13.9	8.0	2.7	76.8%
Exxon Mobil	133.9	34.4	68.4	76.8%
UPS	17.5	6.0	7.3	76.0%
Altria Group	52.2	29.0	10.7	76.1%
Wal-Mart Stores	83.8	42.9	19.1	73.9%
Kroger	3.5	0.1	2.3	70.3%
United Technologies	13.9	3.4	5.3	63.0%
Medco Health Solutions	2.5	0.0	1.6	62.1%
AT&T	32.2	14.7	5.0	61.2%
Dow	12.4	6.4	0.8	58.1%
Alcoa	6.1	2.6	0.7	53.4%
Costco	4.5	0.5	1.9	53.3%
Best Buy	4.3	0.6	1.7	52.6%
Motorola	13.1	2.0	4.7	50.6%
Chevron	52.9	17.4	8.8	49.6%
Wyeth	15.6	6.3	0.8	45.3%

Table 4 (*Continued*)

Company	Net income	Dividends	Share buy-backs	Dividends and buy-backs to net income ratio
Walgreen's	6.8	1.0	1.9	42.1%
Target	11.8	1.4	3.4	41.1%
Lowe's	11.4	0.7	3.5	37.2%
Marathon Oil	11.4	1.9	1.7	31.9%
Valero Energy	11.6	0.5	3.0	30.1%
GE	41.6	6.9	2.8	23.5%
Johnson Controls	4.0	0.8	0.0	20.9%
Hess	4.6	0.7	0.0	15.2%
CVS/Caremark Rx	5.1	0.6	0.0	11.8%
FedEx	6.9	0.4	0.4	11.3%
Berkshire Hathaway	39.3	0.0	0.0	0.0%
Ingram Micro	0.6	0.0	0.0	0.0%
AES	− 3.3	0.0	0.0	0.0%
Time Warner	− 82.2	1.3	15.9	− 21.0%

Source: Company annual reports and public tax filings.
Note: Includes Fortune 100 companies with online available balance sheet information.

itself. Since the early 1980s, non-financial corporations have increased their relative investment in financial assets. This financial investment picked up in the late 1990s, and by around 2000 non-financial corporations as a whole held more than half their assets in the form of financial assets (Crotty, 2005, p. 90; Orhangazi, 2008, Figure 1).

A snapshot of individual US corporations in 2006 (Table 4) suggests that higher levels of shareholder value are associated with greater import reliance in global value chains. Computer hardware and software manufacturers and retailers, two sectors that rely heavily on sophisticated global value chain arrangements, were among those returning the highest percentage of dividends and share buy-backs in relation to net income. These include Cisco, Microsoft, Hewlett Packard, Dell and Intel and retailers Federated and Home Depot. Cisco was among the first US manufacturers largely to abandon manufacturing through the use of foreign contract manufacturers in order to focus on sales and service. Already by the late 1990s Cisco owned only two of the thirty-four foreign plants it contracted for manufacturing. Microsoft has well-established offshore software development, including in India, and the design and manufacture of its Xbox video game consoles has been managed by the Asian contract manufacturer Flextronics. Dell, the PC assembler that revolutionized mass customization in the PC market, purchases 4,500 different parts from 300 suppliers. Hewlett-Packard purchases some of its highest technology components from Taiwanese suppliers (Lynn, 2005, ch. 5).

At the bottom in this sample are companies that rely less on low-wage offshore outsourcing, including oil companies (Chevron, Marathon, Valero),

technical service providers (Ingram Micro, Fedex), insurance (Berkshire Hathaway), pharmaceuticals (Abbott, Wyeth) and power plants (AES). Many of these firms are in fact among leading US exporters, not its importers. Wal-Mart deserves mention because it is so heavily reliant on foreign contract manufacturers. It is the leading importer from China, with reported imports of $18 billion in 2004 and $27 billion in 2006 (Scott, 2007). From the perspective of dividend and share buy-back activity in 2006, Wal-Mart falls in the middle of our sample at 73.9 per cent.

International finance

Rising profit rates and the profit share of the corporate sector in the US have been associated with a growing import propensity and a growing trade deficit. The US trade deficit has exceeded $700 billion annually over 2005–7, more than 6 per cent of GDP. By definition, the US import surplus involves an export surplus elsewhere, and the largest US bilateral deficit is with China. In 2007, the US ran a $256 billion deficit with China, based on imports of $322 billion and exports of $65 billion (see Table 1 above). Most of these imports were demanded directly by US corporations, such as Wal-Mart, Nike and Mattel and a number of apparel, electronics and automotive companies. In 2005, 26 per cent of US imports from China were 'related party' imports, meaning they are between parties with at least a 5 per cent common ownership interest. Those without affiliates in China often order from large Chinese contract manufacturers or from vendors who subcontract to Chinese firms. In the electronics sector, Chinese production is dominated more by foreign investors from Asia. The booming exports to the US have generated a rapid accumulation of foreign currency reserves in China and their subsequent investment in the US. China's foreign reserves have quintupled since 2002, reaching $1.4 trillion by September of 2007. Chinese trade surpluses require that the Chinese central bank purchase these dollar earnings with Chinese yuan in order to retain the fixed value of the yuan.

These foreign currency reserves, like those funds of the non-financial corporations in industrialized countries, must be invested with concern for return and risk. Thus one attraction of US assets for the Chinese is the safety of US Treasury securities. Another apparent goal of recycling surpluses into US capital markets has been to prop up the value of the dollar, which in turn sustains the competitiveness of Chinese exports. But Chinese purchases of US assets have become increasingly diversified. While US Treasury securities still dominate purchases, the purchase of such securities fell by 30 per cent between 2003 and 2006. The share of corporate stocks and bonds rose to 15 per cent of total Chinese purchases of US assets in 2006, up from 4.5 per cent in 2000 and just 3.1 per cent in 2001. And the last few years have seen a number of major outright purchases of US companies aimed at gaining access to US markets or resources, beginning with the purchase by Lenovo in 2005 of IBM's personal

computer division for $1.25 billion (plus the assumption of $500 million IBM debt).[22] The Lenovo purchase was followed by the offer (later rescinded) by China National Offshore Oil Company to purchase the US oil company Unocal. China recently created a $300 billion sovereign wealth fund (the China Investment Company) to invest its reserves in assets with yields above that of US Treasury securities. Among its first purchases was a $3 billion interest in the Blackstone Group, a non-controlling (8 per cent) share of the initial public offering for the hedge fund and a similar investment in Barclays Bank (UK). These investments are driven by a variety of interests, including access to financial market expertise. But not far down the list is a concern for return on equity. With the decline in Blackstone's share price in the weeks following the Blackstone offering, a Chinese blogger was quoted in *The New York Times* as follows: 'The foreign reserves are the product of the sweat and blood of the people of China, please invest them with more care!' (Bradsher, 2007).

Despite all the concern about China, it accounts for just 16 per cent of foreign ownership of Treasury securities. Japan holds twice as much, the United Kingdom holds another 8 per cent and oil-exporting countries own 5 per cent. Moreover, private capital inflows play a much more significant role than official flows. From 2000 to 2007, when the current-account deficit averaged 5 per cent of GDP, only 2 per cent of GDP came from official reserve flows, while 3.2 per cent of GDP came in the form of private direct investment or other private capital inflows (figures from Milberg, 2008, Table 1). These capital inflows continue in good part because of the strength of US corporations.

Sustainability and replicability of the globalization–financialization link

The analysis so far has largely focused on the US and the period since the mid-1980s. This raises the question of whether the analytical framework is relevant in different contexts. Thus, before drawing any general conclusions about the relation between value chain governance and the process of financialization, in this section I briefly address the question of the sustainability of the relation and then turn to the issue of the extent to which it is found in countries other than the United States. In the subsequent and concluding section I take up these same issues briefly in the context of the current economic downturn that also began in the US and appears to have begun to spread to different degrees to a number of other industrialized countries.

Sustainability

The literature on financialization to date has left unanswered the question of how the financialized non-financial corporate system sustains itself. As

Lazonick and O'Sullivan (2000) put it, 'What is the continuing capacity of US corporations to support stock prices through 'downsize and distribute' strategies'? They are sceptical that there is such a 'continuing capacity', writing that 'the experience of the United States suggests that the pursuit of shareholder value may be an appropriate strategy for running down a company – and an economy. The pursuit of some other kind of value is needed to build up a company and an economy.' Boyer notes that, while his simulation model of US economic growth is profit-led and stable, nonetheless 'the more extended the impact of finance over corporate governance . . . the more likely is an equity-based regime to cross the zone of structural stability' (2000, p. 142). This pessimism is reflected in the literature on the effects of financialization. Stockhammer (2004) finds that financialization 'contributed to' a slowdown in investment by non-financial corporations (especially in the US and France) and can thus be blamed for the slowdown in economic growth in those countries since 1980. Orhangazi (2008), in a study of firm behaviour in the American non-financial corporate sector, also finds a negative relation between financialization and investment in plant and equipment. And a large literature on finance and economic development attributes slow growth in developing countries and the recurrence of financial crises to excessive financial liberalization and the financialization it has brought, especially to emerging market economies.[23]

Sustainability can be addressed at a number of levels. One implication of our discussion of global value chains and financialization is that the current global payments imbalances are mutually reinforcing, as reduced (imported) input prices support cost mark-ups and rates of return that attract capital inflows from abroad. Specifically, imported inputs raise profits and profit margins which in turn attracts (domestic and foreign) capital. On the flip side, imported inputs increase supplier-country (e.g. Chinese) exports, creating an expansion of foreign reserves holdings by those countries. This link among globalized production, corporate rates of return and international payments has not been adequately acknowledged by those who have predicted an imminent hard landing for the dollar. The argument here is that, because of these connections between trade and profitability, the international payments imbalances may be more sustainable than standard debt-to-GDP-ratio calculations would indicate. Some have also pointed out that the nature of financialization in the state-owned enterprise sector in China, in particular the large undistributed profits, has brought excessive saving and a higher Chinese current account surplus. One response, proposed by those on both sides of the Western political spectrum, would be more government spending out of these profits, for example on a greater public provision of social protection (see Kujis, 2005; Hung, 2007).

The process described here may be sustainable from the point of view of the dynamics of foreign debt, but it is not necessarily desirable from a social perspective. In particular, the situation has contributed to rising inequality both in the industrialized countries and in much of the developing world, and

certainly in China. Most studies of trade and income distribution focus on the increase in the ratio of wages of skilled to unskilled workers. The focus here has been on the share of national income going to corporate profits. We saw that globalized production is contributing to a rising profit share in the US and to an accumulation of profits in the form of foreign exchange reserves in China. Such heightened inequality may not be sustainable, and gets to the heart of political debates and struggles over the effects of globalization.[24]

Replicability

In the dynamic model of offshoring discussed above, the gains from the new wave of globalization require the reinvestment of profits gained through cost-reducing offshoring. The rise in the profit share of national income observed across the industrialized countries is thus consistent with this dynamic. Figure 5 shows the inverse of this, which is the decline in share of labour compensation in GDP for six OECD countries. By definition, a fall in the profit share is the inverse of a rise in the profit share. Note that by this very broad measure the labour share has declined less in the US than in some of the others, in particular the UK and Germany.

The key to the attainment of dynamic gains is that the efficiency gains from offshoring be shared between consumers and producers and that both these channels (a rise in quantity demanded due to the price decline and a rise in the cost mark-up) lead to greater investment, which in turn generates higher productivity growth, output and employment. The problem is that, while profits and profit shares are up across the OECD, this has generally not been associated with higher rates of investment. In many cases the demand for

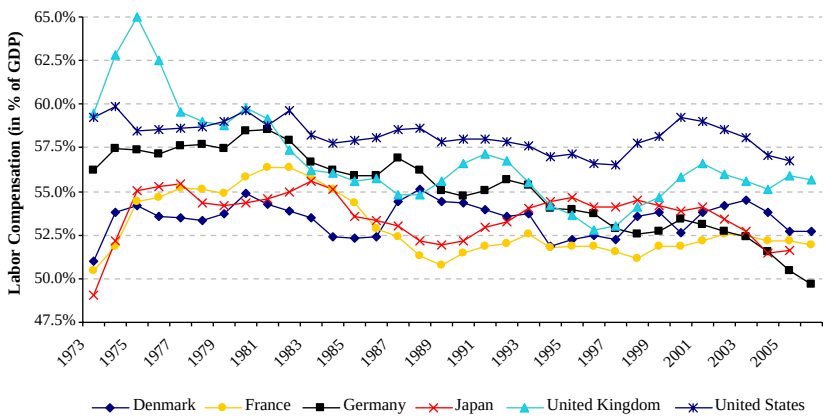

Figure 5 Labour compensation for selected OECD countries, 1973–2006 (in % of GDP)
Source: OECD Annual National Accounts statistics

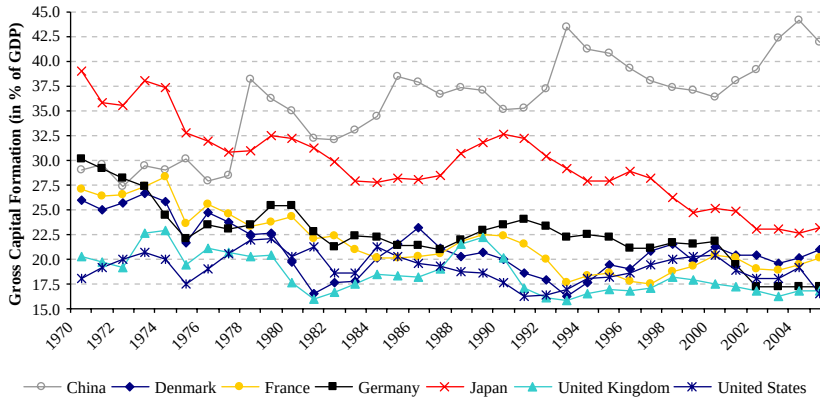

Figure 6 Gross capital formation (in % of GDP)
Source: Own illustration; data: UN DESA Statistics Division; retrieved from: UNCTAD GlobStat Database

domestic investment relative to GDP and to profits has fallen, as seen in Figure 6.

There are a number of explanations for the decline in investment out of profits (Figure 3) and out of GDP (Figure 6). With respect to the globalization of production, the simple fact is that less investment is needed when significant portions of the production process (goods and services) are moved offshore. Consistent with this, we see in Figure 6 that, as the rate of investment out of GDP has fallen in the industrialized countries, the rate of investment in China has soared.

The decline in investment spending is also an indication that the strategic shift from 'retain and reinvest' to 'downsize and distribute' which began in force in the US in the 1980s appears to have taken hold in other industrialized countries. By focusing increasingly on 'core competence' and subcontracting (both domestically and internationally) the remainder of the operation, corporate managers have been able to reduce domestic investment needs and meet shareholder demands for improvements in shareholder value, that is, the financialization of the non-financial corporate sector. Stockhammer (2004) documents a marked increase in the share of non-financial corporations' value added going to interest and dividends between 1978 and 1995 in the US, UK, France and Germany. In an econometric analysis, the author finds this measure of 'financialization' to be associated with declines in business investment. A pair of studies of UK and Danish retail global value chains show that the greater shareholder pressure on the UK firms led to much stricter conditions being imposed on foreign suppliers to these firms compared to Danish firms. UK retailers were more aggressive in seeking low-cost suppliers and in pressuring suppliers to reduce prices. The relation between the globalization of production and financialization thus appears to go in both directions (see Gibbon, 2002; Palpacuer, Gibbon & Thomsen, 2005).

Conclusion: interdependence of globalization and finance and the current crisis

Analysis of global value chains often leaves aside the financial implications, and studies of financialization tend to leave as implicit the link to production and investment. In this paper, I have focused narrowly on the US and especially its reliance on Chinese manufacturing to demonstrate that there is a link between the globalization of production and financialization, although not a simple causal relation from one to the other. The globalization of production has clear implications for pricing, profits, wages and investment at the level of the firm and these have supported the process of financialization. Pressures for financialization and increased short-run shareholder returns have, in turn, spurred greater globalization of production, as firms have divested the less competitive aspects of their production or relocated parts of the production process in order to lower costs. The interdependence between the two processes is likely only to grow in both scale and scope, as services offshoring begins to expand very rapidly and as more countries participate in complicated global value chains. Corporate governance and global value chain governance are linked and our understanding of each of these processes can be strengthened by a deeper exploration of this interdependence.

The growing financialization of the non-financial corporate sector in the US and some other industrialized countries over the past twenty-five years needs a broader explanation since its theorization has been largely based on the notion of a once-for-all shift from 'retain and reinvest' to 'downsize and distribute'. In this paper I argued that what many analysts of financialization fail to consider are the changes in the structure of production, and specifically the rise of global value chains that have provided the continued capacity of the major industrialized countries to sustain profit growth within the confines of a financialized system. Thus, while a common presumption in the financialization literature is that finance is the 'tail' wagging the production 'dog', it is not possible to make the case that the revolution in corporate governance or the liberalization of capital accounts *caused* the international vertical disintegration of production because it preceded it chronologically.[25] The two processes emerged in force in the past twenty-five years – the same period in which the profit share in most industrialized countries rebounded after declining during the 1960s and 1970s – and it is more reasonable to see the two as interdependent tendencies.[26] Financialization has encouraged a restructuring of production, with firms narrowing their scope to core competence. And the rising ability of firms to disintegrate production vertically and internationally has allowed these firms to maintain cost mark-ups – and thus profits and shareholder value – even in a context of slower economic growth. The point is not that globalized production triggered financialization, but that global production strategies have helped to sustain financialization.[27] Sustainability in terms of profits and international capital flows is not synonymous with social sustainability. And we have seen the social conflict created as a result of the

interdependence of financialization and global value chain governance: large increases in income inequality. While we have explored this dynamic mainly in terms of the US and its expansion especially of global value chains in China, we have also argued that the dynamic appears to operate broadly in the US non-financial sector and there are indications of its operation across the OECD.

The global value chain–financialization link has been especially effective under conditions of slow but positive economic growth in the US and Europe. With the collapse of the housing and mortgage derivatives markets in the US, bringing severe losses to the financial sector in the US and other major industrialized countries, the link between the governance of global value chains and financialization will be likely to change. With the financial sector devastated, the behaviour of the non-financial corporate sector has come into the spotlight, with a number of articles in the popular press positing that activity in the non-financial corporate sector will be crucial in staving off recession in the US. The analysis in this paper indicates that this is unlikely. On the one hand, many non-financial corporations are lead firms in global value chains and may simply intensify their sourcing strategy to raise mark-ups. Product markets are likely to be depressed given that consumer confidence and demand have continued to fall along with housing prices. The offshoring strategy is complicated by the fact that the dollar began to weaken against the Chinese yuan in the middle of 2005 and has depreciated just over 15 per cent from its fixed level of the 1990s, making it more difficult for US lead firms to reduce costs through global value chains. But the dollar's depreciation *vis-à-vis* the Chinese yuan has been slow and steady, reducing the likelihood of a run on the dollar and dollar assets. And a number of foreign firms have provided capital for ailing US financial firms. On the other hand, the appreciation of the euro *vis-à-vis* the yuan – by more than 30 per cent between the first quarter of 2002 and the last quarter of 2007 – increases the likelihood that the global value chain–financialization interdependence could gain strength in Europe.

Acknowledgements

I am grateful to Dean Baker, Robert Blecker, Peter Gibbon, Dominique Levy and two anonymous referees for comments on a previous draft, and to participants in the workshop on 'Governing Production, Trade and Consumption: Power and Agency in Global Value Chains and Networks', Danish Institute for International Studies, Copenhagen, 19–20 June 2007. Thanks to Bobo Diallo, Andrew McCarthy and Daniel Samaan for excellent research assistance.

Notes

1 For early discussion of shareholder value, see Rappaport (1986) and on core competence, see Prahalad and Hamel (1990).
2 In some cases – for example, the recent case of Mattel Inc. and its sale of unsafe toys in the US – the identity of supplier firms is not known even to the buyer. Mattel relies on Chinese vendors who outsource to companies whose identity is not necessarily known to Mattel.
3 Epstein and Jayadev (2005, p. 50), for example, define financialization as a rise in the rentier share of national income, where rentier share is the profits of financial firms plus interest income earned in the rest of the economy.
4 See, for example, Eatwell and Taylor (2002).
5 See, for example, Stockhammer (2004) and Crotty (2005).
6 Offshoring data can be found in Milberg and Scholler (2008, Table 7).
7 Other measures of the US profit share show a smaller increase. See Figure 2 below. For an international comparison of labour shares (the inverse of the profit share) in some OECD countries, see Figure 5 below.
8 The more demanding consumer has been noted in the popular press but received little attention in scholarly research. See, for example, Cassidy (2005).
9 On US wage stagnation, see Temin and Levy (2006). On the issue of the distribution of productivity gains, see Dew-Becker and Gordon (2005).
10 See, for example, Arndt and Kierzkowski (2001) or Bhagwati *et al.* (2004).
11 For a review of this vast and growing literature, see Milberg and Scholler (2008).
12 See, for example, Mann (2006, 2007). For a longer discussion of the various effects of offshoring (although in the context of the issue of labour demand), see Milberg and Scholler (2008). Curiously, the dynamic model is more in the spirit of the classical trade theory of Ricardo, Mill and Marx than the neoclassical theory of Heckscher-Ohlin. See Milberg *et al.* (2007).
13 See Burke and Epstein (2001) on the impact of threat effects on US wage bargain outcomes.
14 The evidence is not unambiguous. Gorg and Hanley (2004), using a sample of twelve Irish electronics manufacturers, find that firm-level profits are directly related to outsourcing for large firms (in employment terms) and not significantly related for the small firms in the sample. In a study of small- and medium-size Japanese firms, Kimura (2002) found no relation between subcontracting and profitability. In a study of German manufacturing firms, Gorzig and Stephan (2002) found outsourcing of materials to be associated with higher profits but outsourcing of services to be associated with lower profits.
15 A study by Ellis and Smith (2007) finds no connection between openness and the profit share, but links the rising profit share to increased 'churning' in the labour market. While the authors attribute this to technological change, it seems likely that it also results from some of the indirect effects of globalization, such as the threat effect mentioned above.
16 According to Houseman, another implication of this misattribution is an overstatement of US GDP, since productivity gains figure in domestic, not foreign output.
17 Outward foreign direct investment would be an offsetting factor.
18 Bates, Kahle and Stulz (2006) report a 129 per cent increase in the cash ratio of US industry over the period 1980–2004.
19 See, for example, Marris (1964).
20 The corporate profit share is the one shown in Figure 1.
21 One possible explanation for the decline in the investment rate out of profits is that companies were investing abroad instead of in the domestic economy. The official

statistics on US outward foreign direct investment indicate that this does not account for much of the use of profits.

22 Note that this case provides another good example of divestment of manufacturing by a US firm in order to focus on 'core competence', in this case business consulting services. According to Mark Loughridge, chief financial officer at IBM, the deal 'helps IBM focus on enterprise and SMB [small and medium-size business] segments where we can best leverage our value-add' (cited in *PC World* magazine, 2005).

23 See, for example, Arestis, Luintel and Luintel (2005).

24 Watson comments that shareholder value strategies are likely to become a 'site of political struggle' (2007, p. 17) for similar reasons, that is, heightened income and wealth inequality. Another issue in the sustainability debate is whether yuan revaluation (*vis-à-vis* the dollar) would necessarily bring US trade balance improvement of the magnitude normally predicted. Even ignoring short-run J-curve effects, the revaluation might simply trigger a shift in sourcing from China to other locations, perhaps raising costs to US firms and thus the value of US imports, lowering Chinese exports and raising exports by other countries (e.g. Vietnam). In effect this would be a transfer of rents from US company stockholders to producers in the other countries who capture the export markets.

25 Note also that there is an older literature on the relation between financial institutions and production relations based on Gershenkron's (1962, pp. 38–50) study of the institutional foundations of economic development, according to which financial institutions are the result of the specific production system. Zysman (1983) filled out this picture and identified different sets of financial institutions as enabling of three distinct systems of industrial relations, the Anglo-Saxon, the Japanese and the French. Palpacuer, Gibbon and Thomsen (2005) provide a rare recent sectoral analysis along these lines.

26 Montgomerie (2007) also questions the idea of a single direction of causation, arguing that financialization is 'an entry point into an analysis of a dynamic system of social interaction, rather than a static description of unitary will and collective logic' (2007, p. 6). On the long-run shifts in the profit share, see Wolff (2003) and Glyn (2006), who link it specifically to financialization and globalization.

27 The analysis also has implications for the relation between international trade and economic growth which merit further research. Our analysis of the contemporary US situation – whereby a growing trade deficit is integral to retaining profits, mark-ups and domestic market share – contrasts starkly with some classic heterodox writings on open economy macroeconomics, such as Kalecki or Hobson.

References

Abernathy, F., Dunlop, J., Hammond, J., & Weil, D. (1999). *A stitch in time: Lean retailing and the transformation of manufacturing-lessons from the apparel and textile industries*. New York: Oxford University Press.

Arestis, P., Luintel, A. D., & Luintel, K. B. (2005). *Financial structure and economic growth*. CEPP working paper 06/05.

Arndt, S. & Kierzkowski, H. (Eds). (2001). *Fragmentation: New production patterns in the world economy*. Oxford: Oxford University Press.

Bardhan, A. & Jaffee, D. (2004). On intra-firm trade and multinationals: Foreign outsourcing and offshoring in manufacturing. Mimeo. Haas School of Business, University of California, Berkeley.

Bates, T., Kahle, K. M., & Stulz, R. M. M. (2006). *Why do US firms hold so much more cash than they used to?* Working paper 12534. National Bureau of

Economic Research. Retrieved from http://www.nber.org/papers/w12534.
Bhagwati, J., Panagariya, A., & **Srinivasan, T. N.** (2004). The muddles over outsourcing. *Journal of Economic Perspectives*, *18*(4), 93–114.
Blecker, R. (2008). Stolper-Samuelson after Kalecki: International trade and income distribution with oligopolistic mark-ups and partial pass-through. Mimeo. Department of Economics, American University.
Blinder, A. (2007). *How many US jobs might be offshorable?* CEPS working paper 142. Princeton, NJ: Princeton University.
Boyer, R. (2000). Is a finance-led growth regime a viable alternative to Fordism? A preliminary analysis. *Economy and Society*, *29*(1), 111–45.
Bradsher, K. (2007). Feeling the heat, not breathing fire. *The New York Times*, 3 August: C1.
Burke, J. & **Epstein, G.** (2001) Threat effects and the internationalization of production. Mimeo. PERI, University of Massachusetts-Amherst.
Cassidy, J. (2005). The customer is king. *The New Yorker*, 14 and 21 February, 104.
Crotty, J. (2005). The neoliberal paradox: The impact of destructive product market competition and 'modern' financial markets on nonfinancial corporation performance in the neoliberal era. In G. Epstein (Ed.), *Financialization and the world economy*. Cheltenham: Edward Elgar.
Dew-Becker, I. & **Gordon, R.** (2005). Where did productivity growth go? Inflation dynamics and the distribution of income. *Brookings Papers on Economic Activity*, *36*(2), 67–127.
Dossani, R. & **Kenney, M.** (2003). Went for cost, stayed for quality? Moving the back office to India. Mimeo. Stanford University Asia-Pacific Research Center.
Dumenil, G. & **Levy, D.** (2005). Costs and benefits of neoliberalism: A class analysis. In G. Epstein (Ed.), *Financialization and the world economy*. Cheltenham: Edward Elgar.
Eatwell, J. & **Taylor, L.** (2000). *Global finance at risk: The case for international regulation*. New York: New Press.
Ellis, L. & **Smith, K.** (2007). *The global upward trend in the profit share*. BIS Working Paper No. 231. Bank for International Settlements.
Epstein, G. & **Jayadev, A.** (2005). The rise of rentier incomes in OECD countries: Financialization, central bank policy and labor solidarity. In G. Epstein (Ed.), *Financialization and the world economy*. Cheltenham: Edward Elgar.
Froud, J., Haslam, C., Johal, S., & **Williams, K.** (2000). Shareholder value and financialization: Consultancy promises, management moves. *Economy and Society*, *29*(1), 80–110.
Gereffi, G., Humphrey, J., & **Sturgeon, T.** (2005). The governance of global value chains. *Review of International Political Economy*, *12*(1), 78–104.
Gershenkron, A. (1962). *Economic backwardness in historical perspective: A book of essays*. Cambridge, MA: Harvard University Press.
Gibbon, P. (2002). At the cutting edge? Financialisation and UK clothing retailers' global sourcing patterns and practices. *Competition and Change*, *6*(3), 289–308.
Glen, J., Lee, K., & **Singh, A.** (2003). Corporate profitability and the dynamics of competition in emerging markets: A time series analysis. *Economic Journal*, *113*, F465–84.
Glyn, A. (2006). *Explaining labor's declining share of national income*. G-24 Policy Brief No. 4.
Gorg, H. & **Hanley, A.** (2004). Does outsourcing increase profitability? *The Economic and Social Review*, *35*(3), 267–88.
Gorzig, B. & **Stephan, A.** (2002). *Outsourcing and firm-level performance*. Discussion paper 309. DIW Berlin.
Grossman, G. & **Rossi-Hansberg, E.** (2006). The rise of offshoring: It's not wine for cloth anymore. *Proceedings*, Federal Reserve Bank of Kansas City, 59–102.
Guscina, A. (2006). *Effects of globalization on labor's share in national income*. IMF Working paper 06/294. Washington, DC: International Monetary Fund.

Hamilton, G., Petrovic, M., & Feenstra, R. (2006). Remaking the global economy: US retailers and Asian manufacturers. Mimeo. University of Washington.

Harrison, A. (2002). Has globalization eroded labor's share? Some cross-country evidence. Mimeo. University of California, Berkeley.

Heintz, J. (2006). Low-wage manufacturing and global commodity chains: A model in the unequal exchange tradition. *Cambridge Journal of Economics*, *30*, 507–20.

Houseman, S. (2006). *Outsourcing, offshoring, and productivity measurement in US manufacturing*. W.E. Upjohn Institute staff working paper 06–130, revd April 2007.

Hung, H. (2007). Rise of China and the global overaccumulation crisis. *Review of International Political Economy*, forthcoming.

International Monetary Fund (2006). *World economic outlook* (ch. 5), Washington, DC: IMF.

Kaplinsky, R. (2005). *Globalization, poverty and inequality*. London: Polity Press.

Kimura, F. (2002). Subcontracting and the performance of small and medium firms in Japan. *Small Business Economics*, *18*, 163–75.

Kujis, L. (2005). *Investment and saving in China*. World Bank policy research paper 3633. Washington, DC: The World Bank.

Langlois, R. (2003). The vanishing hand: The changing dynamics of industrial capitalism. *Industrial and Corporate Change*, *12*(2), 351–85.

Larsen, P. (2007). Facts and figures: Numbers behind the M&A boom. *The Financial Times*, 30 May.

Lazonick, W. (2007). Globalization of the ICT labor force. In R. Mansell, C. Avgerou, D. Quah & R. Silverstone (Eds), *The Oxford handbook of ICTs*. Oxford: Oxford University Press.

Lazonick, W. & O'Sullivan, M. (2000). Maximizing shareholder value: A new ideology for corporate governance. *Economy and Society*, *29*(1), 13–35.

Lynn, B. (2005). *The end of the line: The rise and coming fall of the global corporation*. New York: Doubleday.

Mann, C. (2006). *Accelerating the globalization of America: The role of information technology*. Institute for International Economics.

Mann, C. (2007). Services offshoring and US employment. In E. Paus (Ed.), *Capital unleashed: Winners and losers from offshore outsourcing*. London: Palgrave Macmillan.

Marris, R. (1964). *The economic theory of managerial capitalism*. New York: The Free Press.

Mayer, J. (2000). *The fallacy of composition: A review of the literature*. UNCTAD Discussion Paper 166.

McKinsey Global Institute (2003). *Offshoring: Is it a win-win game?* August.

Milberg, W. (2004). The changing structure of international trade linked to global production systems: What are the policy implications? *International Labour Review*, *143*(1–2).

Milberg, W. (2008). It's not the budget deficit, stupid! In *The promise of public investment*. Schwartz Center for Economic Policy Analysis.

Milberg, W. & Scholler, D. (2008). *Globalization, offshoring and economic insecurity in industrialized countries*. Background paper for United Nations Department of Economic and Social Affairs.

Milberg, W. & von Arnim, R. (2006). *US offshoring: Implications for economic growth and income distribution*. Working paper. Schwartz Center for Economic Policy Analysis, New School for Social Research.

Milberg, W., Mahoney, M., Schneider, M., & von Arnim, R. (2007). Dynamic gains from US services offshoring: A critical view. In E. Paus (Ed.), *Capitalism unleashed: Winners and losers from offshore outsourcing*. London: Palgrave Macmillan.

Montgomerie, J. (2007). *From financialization to finance-led capitalism: Exploring the frontiers of global finance*. Paper presented at conference of International Studies Association, Chicago, March.

Nolan, P., Sutherland, D., & **Zhang, J.** (2002). The challenge of the global business revolution. *Contributions to Political Economy*, *21*(1), 91–110.
Orhangazi, O. (2008). Financialization and capital accumulation in the nonfinancial corporate sector: A theoretical and empirical investigation on the US economy, 1973–2004. *Cambridge Journal of Economics*, forthcoming.
Palpacuer, F., Gibbon, P., & **Thomsen, L.** (2005). New challenges for developing country suppliers in global clothing chains: A comparative European perspective. *World Development*, *33*(3), 409–43.
Prahalad, C. K. & **Hamel, G.** (1990). The core competence of the corporation. *Harvard Business Review*, May–June, 79–94.
Rappaport, A. (1986). *Creating shareholder value: The new standard for business performance*. New York: The Free Press.
Razmi, A. & **Blecker, R.** (2008). Developing country exports of manufactures: Moving up the ladder to escape the fallacy of composition? *Journal of Development Studies*, *44*(1), 21–48.
Rogoff, K. (2003). *Globalization and global disinflation*. Federal Reserve Bank of Kansas City. Retrieved from www.kc.frb.org.
Scott, R. (2007). *The Wal-Mart effect: Its Chinese imports have displaced nearly 200,000 US jobs*. Issue brief 235, Economic Policy Institute, Washington, DC.
Stockhammer, E. (2004). Financialisation and the slowdown of accumulation. *Cambridge Journal of Economics*, *28*, 719–41.
Strange, R. & **Newton, J.** (2006). Stephen Hymer and the externalization of production. *International Business Review*, *15*, 180–93.
Temin, P. & **Levy, F.** (2006). Inequality and institutions in 20th century America. Mimeo. Department of Economics, MIT.
Watson, M. (2007). *Whither financialisation? The contradictory microfoundations of finance-led growth regimes*. Paper presented at annual meeting of International Studies Association, Chicago, March.
Williams, K. (2000). From shareholder value to present-day capitalism. *Economy and Society*, *29*(1), 1–12.
Wolff, E. (2003). What's behind the rise in profitability in the US in the 1980s and 1990s? *Cambridge Journal of Economics*, *27*, 479–99.
Yi, K. (2003). Can vertical specialization explain the growth of world trade? *Journal of Political Economy*, *111*(1), 52–102.
Zysman, J. (1983). *Governments, markets and growth: Financial systems and the politics of industrial change*. Cambridge, MA: Harvard University Press.

William Milberg is Associate Professor of Economics at the New School for Social Research. He has worked as a consultant to various UN agencies and is the co-author of *The Crisis of Vision in Modern Economic Thought* and editor of *Labor and the Globalization of Production*. He is currently working on a book, *The Economic and Social Consequences of Global Supply Chains*.