Financialised Capitalism: Crisis and Financial Expropriation

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Abstract*
The current crisis is one outcome of the financialisation of contemporary capitalism. It arose in the USA because of the enormous expansion of mortgage-lending, including to the poorest layers of the working class. It became general because of the trading of debt by financial institutions. These phenomena are integral to financialisation. During the last three decades, large enterprises have turned to open markets to obtain finance, forcing banks to seek alternative sources of profit. One avenue has been provision of financial services to individual workers. This trend has been facilitated by the retreat of public provision from housing, pensions, education, and so on. A further avenue has been to adopt investment-banking practices in open financial markets. The extraction of financial profits directly out of personal income constitutes financial expropriation. Combined with investment-banking, it has catalysed the current gigantic crisis. More broadly, financialisation has sustained the emergence of new layers of rentiers, defined primarily through their relation to the financial system rather than ownership of loanable capital. Finally, financialisation has posed important questions regarding finance-capital and imperialism.

Keywords
financialisation, crisis, rentier, bank, financial expropriation

1. Introduction: several dimensions of financialisation
The storm that has gradually engulfed the world-economy since August 2007 is a fully-fledged crisis of financialised capitalism. The crisis did not spring directly out of a malaise of production, though it has already caused major disruption of accumulation. It was precipitated by housing debts among the poorest US workers, an unprecedented occurrence in the history of capitalism.

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Thus, the crisis is directly related to the financialisation of workers’ personal income, mostly expenditure on housing but also on education, health, pensions and insurance.

The crisis became global because of the transformation of banks and other financial institutions in the course of financialisation. Commercial banks have become more distant from industrial and commercial capital, while adopting investment-banking and turning toward individual income as source of profits. The combination of investment-banking and financialised personal income resulted in an enormous bubble in the USA and elsewhere during 2001–7, eventually leading to disaster.

During the bubble, it became clear that the sources of financial profit have changed significantly as mature capitalist economies have been financialised. Extracting financial profit directly out of the personal income of workers and others has acquired considerable importance. This may be called financial expropriation. Such profits have been more than matched by financial earnings through investment-banking, mostly fees, commissions, and proprietary trading. To an extent, these also originate in personal income, particularly from the handling of mass savings.

Profits from financial expropriation and investment-banking correspond to changes in the structure of society. They have accrued to managers of finance and industry, as well as to functionaries of finance, such as lawyers, accountants, and technical analysts. This trend appears as the return of the rentier, but modern rentiers draw income as much from a position relative to the financial system as from coupon-clipping. Extraordinary payments take the form of remuneration for putative services, including salaries, bonuses, and stock-options. Contemporary rentiers are the product of financialisation, not its driving force.

Further, the institutions of economic policy-making have changed significantly in the course of financialisation. Central banks have become pre-eminent, buttressed by legal and practical independence. They have cast a benign eye on speculative financial excess, while mobilising social resources to rescue financiers from crisis. But the limits to their power have also become apparent in the course of the crisis, requiring the intervention of the central state.

Financialisation has also deepened the complexity of imperialism. Developing countries have been forced to hold vast international reserves that have resulted in net lending by the poor to the rich. Private capital has flown into developing countries earning high returns, but it has been more than matched by reverse flows aimed at accumulating reserves by developing countries, which earn little. These anarchic capital-flows have benefited primarily the USA as issuer
of the international means of payment, though they have also contributed to the US bubble of 2001–7.

Financialisation, finally, has allowed the ethics, morality and mindset of finance to penetrate social and individual life. The concept of ‘risk’ – often nothing more than a banal formalisation of the financier’s practices – has become prominent in public discourse. Waves of greed have been released by the transformation of housing and pensions into ‘investments’, dragging individuals into financial bubbles. To be sure, there has also been resistance and search for social alternatives. But finance has set the terms across the world.

This paper is a step toward analysis of financialisation and its attendant crises. Guidance has been sought in the work of Marx and the classical-Marxist debates on imperialism at the turn of the twentieth century. The paper starts with a brief discussion of the US financial bubble and its burst in Section 2. It is shown that this was an unprecedented event, caused by the financialisation of personal income combined with the rise of investment-banking. To obtain a better understanding of the roots of the crisis, therefore, Section 3 briefly considers the historical and institutional background of financialisation.

On this basis, Section 4 analyses the process through which extraction of financial profit has led to global economic turmoil. It is shown that interaction between financial expropriation and investment-banking has exacerbated the tension of liquidity and solvency for commercial banks. Several of the largest have effectively become bankrupt, thus crippling real accumulation. The focus of analysis is on the USA as the original site of the crisis, but broader structural trends are demonstrated across key capitalist economies. Section 5 of the paper then turns to the implications of financialisation for class-composition by discussing contemporary rentiers. Section 6 concludes by considering the relevance of the Marxist concept of finance-capital to the current period.

2. Brief anatomy of a crisis of financialisation

2.1. Housing, securitisation and the swelling of the bubble

The immediate roots of the current crisis are to be found in the financialisation of workers’ housing in the USA. Mortgage-lending increased rapidly from 2001 to 2003, subsequently declining but remaining at a high level until 2006:
The explosion of mortgage-lending in 2001–3 met housing demand from households on significant income. When this demand was sated, subprime-mortgage lending rose rapidly (particularly during 2004–6) amounting to $1.75tr, or 19.5% of originations. Borrowers were from the poorer sections of the US working class, often black or Latino women. They were frequently offered Adjustable Rate Mortgages (ARM), typically with an initially low rate of interest that was subsequently adjusted upwards. Total ARM came to $4.3tr during 2004–6, or 47.6% of originations.

Thus, during the bubble, financialisation of personal income reached the poorest sections of the US working class. At the time, this appeared as a ‘democratisation’ of finance, the reversal of ‘red-lining’ of the poor by banks in previous decades. But solving housing problems through private finance eventually became a disaster, putting millions at risk of homelessness.

The subprime market, despite its growth, is not large enough directly to threaten US, and even less global, finance. But it has had a massive impact because of the parallel growth of investment-banking, particularly through mortgage-securitisation: $1.4tr of subprime mortgages were securitised during 2004–6, or 79.3% of the total. This was considerably higher than the average securitisation-rate of 63.9% for the whole of originations. Simply put, securitisation involved parcelling mortgages into small amounts, placing them into larger composites, and selling the lots as new securities. Particles of subprime debt, therefore, became embedded in securities held by financial institutions across the world.

1. See Dymski 2009.
On the back of the housing boom, there was intensification of other forms of financialisation of personal income. As house prices rose, home-owners were encouraged to re-mortgage and use the proceeds for other purposes. This so-called ‘equity extraction’ was a key feature of the bubble:

### Table 2: US mortgage refinance, 2000–7

<table>
<thead>
<tr>
<th>Year</th>
<th>2000</th>
<th>2001</th>
<th>2002</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
</tr>
</thead>
<tbody>
<tr>
<td>Originations ($tr)</td>
<td>1.1</td>
<td>2.2</td>
<td>2.9</td>
<td>3.8</td>
<td>2.8</td>
<td>3.0</td>
<td>2.7</td>
<td>2.3</td>
</tr>
<tr>
<td>Refinance (%)</td>
<td>20.5</td>
<td>57.2</td>
<td>61.6</td>
<td>66.4</td>
<td>52.8</td>
<td>52.0</td>
<td>48.6</td>
<td>49.8</td>
</tr>
</tbody>
</table>


A parallel result was collapse of personal savings, which approached zero as percentage of disposable income (Table 3). The decline in personal savings is a long-term aspect of financialisation, reflecting the increasing involvement of individuals in the financial system and the concomitant rise in individual debts. From 9–10% of disposable income in the 1970s and early 1980s, personal savings have declined steadily throughout the period. But the drop in the USA to 0.4% is remarkable, and historically unprecedented for a mature capitalist country.

### Table 3: Personal savings, USA, 2000–7

<table>
<thead>
<tr>
<th>Year</th>
<th>2000</th>
<th>2001</th>
<th>2002</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
</tr>
</thead>
<tbody>
<tr>
<td>Savings ($bn)</td>
<td>168.5</td>
<td>132.3</td>
<td>184.7</td>
<td>174.9</td>
<td>181.7</td>
<td>44.6</td>
<td>38.8</td>
<td>42.7</td>
</tr>
<tr>
<td>Savings as % of Disposable Income</td>
<td>2.3</td>
<td>1.8</td>
<td>2.4</td>
<td>2.1</td>
<td>2.1</td>
<td>0.5</td>
<td>0.4</td>
<td>0.4</td>
</tr>
</tbody>
</table>

Source: Federal Reserve Bank, Flow of Funds, various.

### Table 4: Balance of trade deficit, USA, 2000–7, $bn

<table>
<thead>
<tr>
<th>Year</th>
<th>2000</th>
<th>2001</th>
<th>2002</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
</tr>
</thead>
<tbody>
<tr>
<td>379.5</td>
<td>367.0</td>
<td>424.4</td>
<td>499.4</td>
<td>615.4</td>
<td>714.6</td>
<td>762.0</td>
<td>708.6</td>
<td></td>
</tr>
</tbody>
</table>

Source: Federal Reserve Bank, Flow of Funds, various.
As savings collapsed, the balance of trade-deficit of the USA, already very large, expanded to an enormous $762bn in 2006. Such were the foundations of the apparent period of growth and prosperity in the USA during 2001–7.

2.2. Credit feeding the bubble

Monetary policy contributed directly to the bubble and its burst. On the wake of the new technology-bubble of 1999–2000, the Federal Reserve cut interest rates rapidly and kept them low. The gradual rise of interest-rates after 2004 eventually put an end to the bubble:

**Table 5: Effective federal funds rate, 2000–7**

<table>
<thead>
<tr>
<th>Year</th>
<th>2000</th>
<th>2001</th>
<th>2002</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>6.24</td>
<td>3.88</td>
<td>1.67</td>
<td>1.13</td>
<td>1.35</td>
<td>3.22</td>
<td>4.97</td>
<td>5.02</td>
</tr>
</tbody>
</table>

Source: Federal Reserve Bank, Interest Rates, various.

In addition to cheap credit from the Fed, several developed and developing countries found themselves in possession of large trade-surpluses (excess of domestic savings over investment) around the middle of the 2000s. The counterpart was trade-deficits and a shortfall of savings relative to investment in the USA and the UK (and less so in France, Italy, and elsewhere):

**Table 6: Excess of savings over investment as % of GDP**

<table>
<thead>
<tr>
<th>Year</th>
<th>2002</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
</tr>
</thead>
<tbody>
<tr>
<td>USA</td>
<td>-4.2</td>
<td>-5.1</td>
<td>-5.5</td>
<td>-6.0</td>
<td>-5.9</td>
<td>-5.1</td>
</tr>
<tr>
<td>UK</td>
<td>-1.6</td>
<td>-1.3</td>
<td>-1.6</td>
<td>-2.5</td>
<td>-3.9</td>
<td>-4.9</td>
</tr>
<tr>
<td>Germany</td>
<td>2.0</td>
<td>1.9</td>
<td>4.3</td>
<td>4.6</td>
<td>5.0</td>
<td>5.6</td>
</tr>
<tr>
<td>Japan</td>
<td>2.9</td>
<td>3.2</td>
<td>3.7</td>
<td>3.6</td>
<td>3.9</td>
<td>4.8</td>
</tr>
<tr>
<td>Developing</td>
<td>2.4</td>
<td>2.8</td>
<td>2.6</td>
<td>4.1</td>
<td>5.9</td>
<td>6.8</td>
</tr>
<tr>
<td>Asia</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Commonwealth of Independent Countries (CIS)</td>
<td>6.4</td>
<td>6.3</td>
<td>8.3</td>
<td>8.6</td>
<td>7.4</td>
<td>4.5</td>
</tr>
<tr>
<td>Middle East</td>
<td>4.8</td>
<td>8.3</td>
<td>11.8</td>
<td>19.7</td>
<td>20.9</td>
<td>19.8</td>
</tr>
<tr>
<td>Africa</td>
<td>-1.7</td>
<td>-0.4</td>
<td>0.1</td>
<td>1.8</td>
<td>2.8</td>
<td>0.3</td>
</tr>
</tbody>
</table>

Source: IMF, World Economic Outlook 2008
To defend exchange-rates and as protection against sudden reversals of capital-flows, the surplus-holders sought reserves of dollars as quasi-world-money. The strategy of reserve-accumulation was also imposed on developing countries by international organisations, above all, the International Monetary Fund. The result was accumulation of foreign-exchange reserves even by impoverished Africa.\textsuperscript{2}

Table 7: Reserve-accumulation, selected developing countries and areas, $bn

<table>
<thead>
<tr>
<th>Year</th>
<th>2000</th>
<th>2001</th>
<th>2002</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>800.9</td>
<td>895.8</td>
<td>1072.6</td>
<td>1395.3</td>
<td>1848.3</td>
<td>2339.3</td>
<td>3095.5</td>
<td>4283.4</td>
</tr>
<tr>
<td>of which:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>China</td>
<td>168.9</td>
<td>216.3</td>
<td>292.0</td>
<td>409.0</td>
<td>615.5</td>
<td>822.5</td>
<td>1069.5</td>
<td>1531.4</td>
</tr>
<tr>
<td>Russia</td>
<td>24.8</td>
<td>33.1</td>
<td>44.6</td>
<td>73.8</td>
<td>121.5</td>
<td>156.5</td>
<td>296.2</td>
<td>445.3</td>
</tr>
<tr>
<td>India</td>
<td>38.4</td>
<td>46.4</td>
<td>68.2</td>
<td>99.5</td>
<td>127.2</td>
<td>132.5</td>
<td>171.3</td>
<td>256.8</td>
</tr>
<tr>
<td>Middle East</td>
<td>146.1</td>
<td>157.9</td>
<td>163.9</td>
<td>198.3</td>
<td>246.7</td>
<td>351.6</td>
<td>477.2</td>
<td>638.1</td>
</tr>
<tr>
<td>Sub-Saharan Africa</td>
<td>35.0</td>
<td>35.5</td>
<td>36.0</td>
<td>39.9</td>
<td>62.3</td>
<td>83.0</td>
<td>115.9</td>
<td>144.9</td>
</tr>
</tbody>
</table>

Source: IMF, World Economic Outlook 2008

Forming reserves meant that central banks systematically bought US state-securities. Hence, a large part of the surpluses eventually flowed to the USA, despite relatively low US interest-rates and the possibility of capital-losses, if the dollar was to fall. Developing countries thus became net suppliers of capital to the USA, keeping loanable capital abundant during 2005–6, exactly as the Fed started to tighten credit.

2.3. Burst of the bubble and shortage of liquidity

The crisis emerged after the exhaustion of the US housing boom in 2006. House-prices fell by 5–10% in 2007, the fall accelerating throughout 2008. In the fourth quarter of 2007, 2.1 million people were behind with their payments. The epicentre of this collapse was subprime ARM: 7% of total mortgages but 42% of all foreclosures. Prime (better quality) ARM were also vulnerable: 15% of total mortgages but 20% of foreclosures. In the second quarter of 2008, foreclosure-rates rose to unprecedented levels: 6.63% on

\textsuperscript{2} See Painceira 2009. Rodrik 2006 has put forth a widely used estimate of the social cost of reserves.
subprime and 1.82% on prime ARM. Thus, the housing-market crisis started in subprime mortgages but then spread to the prime sector. The plain mechanics of market-collapse are clear: rising interest-rates and falling housing-prices forced ARM holders to default in increasing numbers.

The most important feature of the burst, from an analytical perspective, was the mutual reinforcement of the problems of liquidity and solvency for banks, which made the crisis progressively worse. This was a direct result of the financialisation of personal income combined with the spread of investment-banking. The tension between liquidity and solvency became severe for commercial banks due to widespread adoption of investment-banking practices. Independent investment-banks, meanwhile, succumbed en masse to the pressures.

Financial turmoil began as a liquidity-shortage in the inter-bank money-market in August 2007 and gradually became a solvency-crisis. The reason was that US and other banks held large volumes of mortgage-backed securities, or were obliged to support financial institutions that held them. As mortgage-failures rose, these securities became progressively unsaleable, thus also putting bank-solvency in doubt. Banks preferred to hoard liquid funds instead of lending them to others.

Liquidity-shortages can be captured as the divergence between the three-month LIBOR (interbank lending) and the three-month Overnight Indexed Swap rate (risk-free rate key to trading financial derivatives among banks). These are normally very close to each other, but, after August 2007, they diverged significantly, the LIBOR exceeding OIS by 1% and even more in late 2007 and early 2008. But this was as nothing compared to the magnitude reached by the divergence in September/October 2008.

The burst of the bubble thus led to an apparent paradox, much exercising the economic weather-experts of the press: markets were awash with capital but short of liquidity. Yet, this phenomenon is neither paradoxical nor new. In financial crises, money becomes paramount: the capitalist economy might be replete with value, but only value in the form of money will do, and that is typically not forthcoming due to hoarding. This condition prevailed in the global financial system in 2007–8. Loanable capital was abundant but there was shortage of liquid means to settle obligations – i.e. money – because of hoarding by financial institutions.

4. For analysis of the money-market from the standpoint of Marxist political economy, see Lapavitsas 2003, Chapter 4, and Lapavitsas 2007.
2.4. Bank-solvency and state-intervention

Central banks have led state-efforts to confront the persistent liquidity-shortage. Extraordinary methods have been used by the Fed and other central banks, including ‘Open Market Operations’, discount window-lending, ‘Term Auction Facilities’, direct lending to investment-banks, swapping mortgage-backed for public securities, and purchasing commercial paper from industrial and commercial corporations. Weak collateral has been taken for some of this lending, thus shifting credit-risk onto central banks. At the same time, central-bank interest-rates were progressively cut throughout 2008, approaching 0% in the USA. Lower rates operated as a subsidy to banks by lowering the cost of funds.

But liquidity-injections alone were incapable of dealing with the aggravated malfunctioning of financialised income and investment-banking. The crisis went through two peaks in 2008 resulting from the tension between liquidity and solvency, while also showing the limits of state-intervention. The first was the collapse of Bear Sterns in March, a giant investment-bank that held $12.1tr of notional value in outstanding derivatives-instruments in August 2007. The bank found it impossible to borrow in the money-market, while its mortgage-backed assets made it insolvent. The Fed, together with the US Treasury, managed its collapse by forcing a takeover by JP Morgan, which received a loan of $29bn for the purpose. Crucially, bondholders and other creditors to the bank received their money back.

Bear Stern’s bankruptcy typified the failure of combining investment-banking with financialised personal income. The US state controlled the shock waves of the bank’s collapse, but failed to appreciate the deeper failure of the mechanisms of financialisation. Compounding the process was the steady decline of stock-markets after December 2007, as share-buyers eventually realised what was afoot. The Dow Jones stood at roughly 11,300 in August 2008, down from 13,300 in December 2007. As their shares collapsed, banks found it increasingly difficult to obtain private capital to support losses in mortgage-backed and other securities. The combination of liquidity- and solvency-problems proved fatal for banks.

The second peak occurred in September–October 2008, a period that has already found its place in the annals of capitalist banking. Rising defaults in the US housing-market led to the near collapse of Fannie Mae and Freddie Mac. These government-sponsored agencies partake of roughly half the annual transactions of mortgage-backed securities in the USA, and typically buy only prime quality. But, during the bubble, they had engaged

in riskier investment-banking, including subprime mortgages, thus forcing the state to nationalise them. Barely a few days later, Lehman Brothers, another giant US investment-bank, found itself in a similar position to Bear Sterns. This time, the Treasury, with the connivance of the Fed, allowed the stricken bank to go bankrupt, both shareholders and creditors losing their money.

This was a blunder of colossal proportions because it removed all remaining vestiges of trust among banks. Money-market participants operate under the tacit premise that what holds for one, holds for all. Since Bear Sterns’ creditors received their money back but Lehman Brothers’ did not, the grounds for interbank-lending vanished. Worse, the collapse of Lehman confirmed beyond doubt that combining investment-banking with the financialisation of personal income had failed irretrievably. Lehman might have been very aggressive, but it had done nothing qualitatively different from other banks.

The aftermath of the Lehman shock was not surprising, but its magnitude was historic. Liquidity disappeared completely, bank-shares collapsed and genuine panic spread across financial markets. The divergence between LIBOR and OIS even approached 4%, making it impossible for banks to do any business. The remaining US investment-banks, Merrill Lynch, Goldman Sachs, and Morgan Stanley, ceased to exist in an independent form. Forced bank-rescues and takeovers occurred in the USA and across Europe. For once, it was not an exaggeration to say that the global financial system was peering into the abyss.

The Lehman shock showed that state intervention in finance is neither omnipotent nor omniscient. The state can make gigantic errors spurred by wrong theory as well as vested interests. Faced with disaster, the US state rapidly altered its stance and effectively guaranteed banks against further failure. This involved the advance of public funds to deal with the problem of bank-solvency. By the end of 2008, the USA had adopted the Troubled Asset Relief Program (TARP), committing $700bn, while similar plans had been adopted in the UK and elsewhere.

By then, however, it had become clear that a major recession was unfolding across the world. Contraction of credit by banks and open markets forced enterprises to cut back on output and employment. Consumption declined as worried and over-indebted workers rearranged their expenditure. Export-markets collapsed, particularly for automobiles and consumer-electronics. Developing countries also suffered as capital-flows became problematic, necessitating emergency-borrowing. A crisis that had began as a financial shock had mutated into a global recession.

To recap, a fully-fledged crisis of financialisation commenced in 2007. Unlike major capitalist crises of the past, it arose due to the financialisation of
personal income, particularly mortgage-lending to US workers, even the poorest. This was combined with the spread of investment-banking practices among financial institutions, above all, securitisation. The crisis paralysed the financial system and progressively disrupted real accumulation. Central-bank intervention has been pervasive but not decisive, forcing governments to intervene to rescue banks and ameliorate the recession.

To go beyond the proximate causes of this crisis, therefore, it is necessary to consider the transformation of the financial system in the context of capitalist development, thus also specifying the content of financialisation. To engage in this analysis, Marxist political economy needs to develop its concepts and broaden its approach. The preceding discussion has shown that the crisis did not emerge because of overaccumulation of capital, though it is already forcing capital-restructuring on a large scale. Rather, this is an unusual crisis related to workers’ income, borrowing and consumption as well as to the transformation of finance in recent decades. In short, it is a crisis of financial expropriation and associated financial mechanisms. The subsequent sections analyse the relevant trends and economic relations.

3. Financialisation in historical perspective

Financialisation has resulted from the epochal changes that followed the first oil shock of 1973–4. That crisis signalled the end of the long postwar-boom and ushered in a long downturn punctuated by repeated economic crises. During this period, there has been a technological revolution in information-processing and telecommunications, with a pronounced effect on the sphere of circulation. Furthermore, during the same period, there has been profound institutional and political change, above all, deregulation of labour-markets and the financial system, while neoliberalism has replaced the Keynesianism of the long boom.

Three aspects of these processes are particularly relevant to financialisation. First, productivity-growth has been problematic from the middle of the 1970s

8. There is extensive political-economy literature on this issue. The most recent, and widely discussed, contribution is by Brenner 1998 and 2002, who essentially argues that the downturn is due to intensified global competition keeping profitability low.

9. The political-economy literature on these issues is extensive, including the debate on flexible specialisation as well as the debate on post-Fordism associated with the French regulation-school.

10. Two recent prominent political-economy contributions that discuss the rise of neoliberalism are Duménil and Lévy 2004 and Glyn 2006.
to the middle of the 1990s, most significantly in the USA.\textsuperscript{11} New technology did not generate significant gains in productivity-growth for two decades. After 1995, there were significant gains in the microprocessor-industry and eventually a broad basis was created for faster productivity-growth across the US economy.\textsuperscript{12} Productivity-growth picked up even in the services-sector, including in financial trading (though not in banking).\textsuperscript{13} During the bubble of 2001–7, however, labour-productivity growth appears to have slowed down again. Moreover, other major capitalist economies, including the UK, have not registered similar gains. The relationship between new technology and productivity-growth, therefore, remains unclear.

Second, the process of work has been transformed, partly due to technological and regulatory change, and partly due to bouts of unemployment at key junctures of the period. Casual labour and entry of women into the labour-force have had a strong impact on work-practices.\textsuperscript{14} It is likely that there has been a rebalancing of paid and unpaid labour, while information-technology has encouraged the invasion of private time by work, as well as growth in piece-work and putting-out practices. In Marxist terms, it is probable that labour has been intensified, and unpaid labour stretched. From the extensive literature on job-satisfaction, for instance, it transpires that work-intensification associated with new technology is a key reason for dissatisfaction with work in developed countries, together with loss of discretion over work-choices.\textsuperscript{15}

Third, global production and trade have come to be dominated by multinational enterprises created through successive waves of mergers and acquisitions. The bulk of foreign direct investment (FDI) takes place among developed countries, but there has also been substantial flows to developing countries since the mid-1990s, rising significantly after 2000.\textsuperscript{16} Competition has intensified globally, but without formal cartels or zones of exclusive trading- and investment-rights. The rise of the multinationals has been accompanied by a shift of the most dynamic sites of production-growth away from the West – above all, toward China. There have even appeared sizeable South-South flows

\begin{itemize}
  \item \textsuperscript{11} The measurement of productivity is a conceptual minefield, particularly in services. In this article, mainstream-measurements are used as reference points for discussion.
  \item \textsuperscript{12} There has been intense mainstream-debate on this issue but a consensus has emerged along these lines. See Oliner and Sichel 2000, 2002; Jorgenson and Stiroh 2000; Gordon 1999, 2004.
  \item \textsuperscript{13} Mainstream-literature on this is less extensive. See Triplett and Bosworth 2001, 2003.
  \item \textsuperscript{14} There is sizeable mainstream-literature on the relationship between new technology and work. See, very selectively, Brynjolfsson and Hitt 2000, 2003; Autor, Levy and Murnane 2003.
  \item \textsuperscript{15} Green 2004a, 2004b; Green and Titsianis 2005.
  \item \textsuperscript{16} World Bank 2006.
\end{itemize}
of FDI.\textsuperscript{17} To be sure, Germany and Japan continue to earn large manufacturing surpluses. Nonetheless, in the West, typically in the USA and the UK, there has been a general shift of capitalist activity toward financial and other services.

Financialisation should be understood against this background of hesitant productivity-growth, altered work-practices, and global shifts in productive capacity. Since the late 1970s, real accumulation has witnessed mediocre and precarious growth, but finance has grown extraordinarily in terms of employment, profits, size of institutions and markets. There has been deregulation, technological and institutional change, innovation, and global expansion. Finance now penetrates every aspect of society in developed countries while its presence has grown strongly in the developing world. While real accumulation has been performing indifferently, the capitalist class has found new sources of profits through the revamped mechanisms of finance. Perhaps the most significant development in this respect has been the rise of financial expropriation of workers and others.

The economic aspects of this complex transformation are examined below, focusing primarily on commercial banks, the pivot of the credit-system. Analysis proceeds within the framework of Marxist political economy, deriving fundamentally from the work of Marx. Nonetheless, the output of subsequent Marxist political economy, especially Hilferding, is at least as important, and, in some respects, superior.

4. Economic aspects of financialisation: financial expropriation and investment-banking

4.1. Commercial banks turn to the individual: the rise of financial expropriation

Commercial banks have been greatly transformed in the course of financialisation. The driving force of this transformation has been declining reliance of large corporations on bank-finance. Corporate enterprises in developed countries have been financing investment (on a net basis) primarily through retained profits.\textsuperscript{18} As far as external finance is concerned, they have relied increasingly on direct borrowing in open markets. Consider the following for the USA, Japan and Germany:

\textsuperscript{17} UNCTAD 2006.
There are differences among countries in this respect. US corporations, for instance, rely more heavily on issuing bonds. These differences reflect the bank-based character of the German and Japanese financial systems as opposed to the market-based character of the US system, briefly discussed in Section 6. But the trend is not in doubt.

Put in Marxist terms, monopolies have become less reliant on banking credit to finance fixed capital. Circulating capital, on the other hand, continues to rely on trade- and banking credit. Even there, however, monopolies have gained direct recourse to financial markets, particularly by issuing commercial paper. Monopolies, therefore, have become increasingly implicated in finance, even to the extent of maintaining separate departments for operations in trade-credit and financial securities. In short, they have become financialised, while relying less on banks.

The deeper reasons for this fundamental development are probably associated with the nature of information- and telecommunications-technology, and the corresponding lumpiness (or not) of fixed capital. Also important are changes in the internal organisational structure of modern corporations as well as variations in turnover-time. Irrespective of these deeper reasons, traditional opportunities for banks to lend to large corporations have shrunk.

The process of financial deregulation since the late 1960s has drawn on the increasing distance between large corporations and banks. Large corporations have boosted open financial markets, actively by-passing controls over interest-rates and quantities of credit, thus preparing the ground for deregulation. Once deregulation occurred, commercial banks lost the captive deposits that had previously sustained their activities. The scope for conventional commercial banking narrowed even more.

Figure 1. Bank-loans as percentage of corporate financial liabilities

Source: Flow of Funds Accounts, USA, Japan and Germany
The responses of banks to narrowing profit-opportunities have been manifold, but two stand out. First, banks turned to the personal revenue of workers and others as source of profit. Second, banks focused on financial-market mediation, i.e. they have increasingly acquired investment-banking functions. These developments are closely related to each other; the former is analysed in this section, the latter in the next.

The turn of banks toward personal revenue as field of profitability exhibits significant variations among advanced countries according to their own historical and institutional development. But the general trend is beyond dispute:

**Figure 2. Lending to consumers and real estate as proportion of total bank-lending, USA**

Source: Flow of Funds Accounts, USA, Federal Reserve

**Figure 3. Lending to individuals as proportion of total bank-lending, Japan**

Source: Bank of Japan, Assets and Liabilities of Financial Institutions
This fundamental trend presupposes increasing involvement of workers in the mechanisms of finance in order to meet elementary needs, such as housing, education, health, and provision for old age. Only then would banks be able to extract significant profits directly from wages and salaries. Once again, there are major differences among developed countries in this respect, reflecting history, institutions, and plain custom. Still, the increasing ‘financialisation’ of individual worker-income is clear, in terms both of liabilities (mostly borrowing for housing) and assets (mostly pensions and insurance):

Source: Financial Accounts for Germany

Source: Flow of Funds Accounts of the USA, Financial Accounts for Germany, OECD
Widespread implication of workers in the mechanisms of finance is the basis of financial expropriation. However, the proportion of worker-income that accrues to banks and other financial institutions is hard to measure on an aggregate scale. Yet, from the perspective of large banks, there is no doubt at all that lending to individuals has become increasingly important for bank-profits.\textsuperscript{19} Moreover, the USA offers some evidence about recent trends at the aggregate level:

\textbf{Figure 7. Mortgage-, consumption-, auto- and other loan-payments plus insurance- and other housing-related payments as proportion of individual disposable income, USA}

Source: Household Debt Service and Financial Obligation Ratios, Federal Reserve Bank

\textsuperscript{19} See the article by Dos Santos in this issue.
Financial expropriation, then, is a source of profit that has emerged systematically during the recent decades. It should be clearly distinguished from exploitation that occurs in production and remains the cornerstone of contemporary capitalist economies. Financial expropriation is an additional source of profit that originates in the sphere of circulation. In so far as it relates to personal income, it involves existing flows of money and value, rather than new flows of surplus-value. Yet, despite occurring in circulation, it takes place systematically and through economic processes, thus having an exploitative aspect.

In Marxist theory, the sphere of circulation is not natural terrain for exploitation since commodity-trading is typically premised on *quid pro quo*. Only if traders happened to be misinformed about values, or extra-economic force was applied, could exploitation arise. That would differ in kind from regular capitalist exploitation, which is both systematic and economic in character. However, financial transactions are about dealing in money and loanable money-capital, rather than in produced commodities. They typically involve the exchange of promises and obligations based on trust, instead of direct *quid pro quo*. The final transfer of value between finance counterparties depends on institutional framework, legal arrangements, information-flows and even social power.

Advantages in information and power make it possible for financial institutions to deal with individuals differently from capitalist enterprises. The latter have reasonable access to information and are not inferior to financial institutions in social and economic power. The financial services they obtain are necessary for the production and circulation of value and surplus-value. Charges for these services generally fall within limits that are determined in every period by the availability of loanable capital and the profitability of real accumulation. If it were otherwise, capitalist enterprises could, in principle, bypass existing financial mechanisms, for instance, by relying more on trade-credit or by setting up alternative mechanisms *ab ovo*. To put it differently, capitalist users of finance engage in economic calculus that is dictated by the logic of the circuit of their own capital. As a result, and on average, the remuneration of financial enterprises in their dealings with productive and commercial enterprises complies with the dictates of the total social capital.

In contrast, finance directed to personal revenue aims to meet basic needs of workers and others – housing, pensions, consumption, insurance, and so on.

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20. In draft versions of this article, financial expropriation was called ‘direct’, or ‘financial’, exploitation. However, the term ‘financial expropriation’ better conveys the pivotal role of financial mechanisms, while avoiding confusion with exploitation at the point of production. This does not preclude the existence of exploitative processes in circulation.
It differs qualitatively from finance directed to capitalist production or circulation. Individuals focus on obtaining use-values, while enterprises aim at the expansion of value. Consequently, the financial actions of individuals are driven by different objectives, motives, information, access to alternatives, and ability to ‘economise’ compared to enterprises. Moreover, individual workers and others who seek to meet basic needs through finance – particularly in the context of limited social provision – have few options in by-passing, or replacing, the mechanisms of the financial system. Hence, individual income can become a target for financial expropriation.

Profit from financial expropriation is reminiscent of usurer’s profit. The latter typically arises as production becomes commercialised, thus making (non-capitalist) producers dependent on money as means of payment. It also arises as consumers (especially of luxury commodities) come to depend on money as means of payment. Interest received by the usurer derives from monetary returns accruing to both producers and consumers, and can even eat into the minimum necessary for reproduction. It is different from interest received by financial institutions for lending to productive capitalists, which derives from profit systematically generated in production. By the same token, advanced financial institutions differ from usurers. But, in times of crisis, the former can become usurious, extracting interest out of the capital of the borrower, rather than out of profit.

In financialised capitalism, the ordinary conditions of existence of working people have come increasingly within the purview of the financial system. Individual dependence on money as means of payment (not only as means of exchange) has become stronger as social provision has retreated in the fields of housing, pensions, consumption, education, and so on. Access to money increasingly dictates the ability to obtain basic goods, while also rationing supply. Thus, the usurious aspect of advanced financial institutions has been re-strengthened, except that financial profits are now generated not only by interest but also by fees.

The more that individual workers have been forced to rely on financial institutions, the more the inherent advantages of the latter in information, power, and motivation have allowed them to tilt transactions to their own benefit. Elements of supremacy and subordination are present in these relations, though there is no direct analogue with exploitation in production.

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23. Marx 1976, p. 1027, thought of these as fundamental to exploitation.
Still, financial expropriation draws on a fundamental inequality between financial institutions and working people accessing finance.

4.2. *Banks turn to financial-market mediation: the advance of investment-banking*

The growth of open financial markets, involving primarily shares, bonds and derivatives, has presented banks with further opportunities for profit-making. Share- and bond-prices result from discounting future payments, using the rate of interest (adjusted for risk) as benchmark.\(^{24}\) Marx called this process the formation of ‘fictitious capital’, thus capturing its distance from value-creation in production.\(^{25}\) Derivatives-markets allow participants to make bets aimed at managing risk, or simply speculating.\(^{26}\) Their prices have a fictitious element, but that derives from institutional practices and norms of trading. The rise of the Black and Scholes model (or variants) in the course of financialisation has given to derivatives-prices an air of objective reality.\(^{27}\)

Open financial markets are natural terrain for investment-banks, which differ substantially from commercial banks.\(^{28}\) Investment-banks are financial-market mediators that mobilise short-term funds to invest in securities. They do not take small deposits, and their liabilities do not function as money. By the same token, they lie outside the regulatory framework of commercial banks, including deposit-insurance and capital-adequacy. Investment-banks derive profits from fees and commissions to facilitate securities-transactions (providing information about counterparties, placing securities with buyers, reducing transactions-costs, underwriting securities, and so on) as well as from proprietary trading. These activities can be called financial-market mediation.

Investment-bank profits pose difficult problems for political economy. Hilferding suggested that they are part of ‘promoter’s’ or ‘founder’s’ profit, that is, of the value of shares discounted at the rate of interest minus their value discounted at the rate of interest.

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24. Hilferding 1981, Chapter 8, advanced the original, and still most powerful, analysis of share-prices within Marxist political economy.
26. Very little guidance on derivatives can be found in the corpus of Marxist political economy. Some steps in forming an analytical framework were taken by Bryan and Rafferty 2007, though they erroneously treat derivatives as money.
28. They are also natural terrain for insurance companies, money-trusts, unit-trusts, money-funds, hedge-funds and pension-funds. These intermediaries differ critically from banks, since their liabilities are not money, and nor do they lend directly for production purposes. They have grown in recent years partly because the state has retreated from welfare-provision, particularly pensions. Their growth has been felicitously called ‘pension fund capitalism’ by Toporowski 2000.
discounted at the (higher) rate of profit. This difference, he postulated, is the future profit of enterprise accruing as a lump-sum to the seller of equities at the time of an Initial Public Offering. But Hilferding’s analysis needs to be rethought, since different rates of discount could hardly be applied to the same flow of expected returns without financial markets becoming segmented. Moreover, the future profits of enterprise are likely to accrue to those who continue to run the enterprise, not to the sellers of shares.

It is more plausible that investment-bank profits result from the division of loanable money-capital (and plain money) mobilised through open financial markets. The available idle money is mobilised either indirectly through banks, or directly through open financial markets. But direct mobilisation is still facilitated by banks and other financial institutions, which are remunerated through a share of the sums traded. Since this process takes place on the basis of fictitious prices, it is susceptible to sentiment, rumours, and manipulation.

Two fundamental trends have encouraged the adoption of investment-banking functions by commercial banks since the late 1970s. First, successive waves of mergers and acquisitions have taken place among ‘financialised’ corporations. Stock-markets have not been significant sources of finance for fixed investment in recent years, but they have certainly facilitated the concentration and centralisation of capital through IPOs, leveraged buy-outs and similar transactions.

Second, the savings of workers and others have been directed toward open financial markets through state-policy. The introduction of regulation 401K in the USA in 1978 made pension-savings available for stock-market investment. Similar processes have occurred in the UK through Personal Equity Plans (PEP), Tax-Exempt Special Savings Accounts (TESSA), and Individual Savings Accounts (ISA). These are integral elements of the ‘financialisation’ of workers’ income.

The turn of commercial banks toward financial-market mediation in the USA was confirmed and promoted by the abolition of the Glass-Steagall Act in 1999. The Act had been in place since the great crisis of the 1930s, preventing commercial banks from formally engaging in investment-banking. The formal separation of functions reflected the inherent difference in liquidity- and solvency-requirements between the two types of banking. Commercial banks

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30. For further analysis of this, see Lapavitsas 2000.
31. This has raised important issues of corporate governance and ‘shareholder value’, see Lazonick and O’Sullivan 2000. This debate has a long pedigree and originates partly in Marxist literature, particularly Marx 1981, pp. 512–14, and Hilferding 1981, Chapter 7. But since the focus of this article is on banks, there is no need to consider it further.
rely for liquidity on a mass of money-like deposits, while investment-banks borrow heavily in open markets. Analogously, commercial banks need capital to confront losses from lending on production-projects, while investment-banks typically need less since they invest in securities held for relatively short periods of time.

Mixing the two types of banking could result in disaster, particularly as deposit-holders could be scared into withdrawing their funds from commercial banks that have engaged in investment-banking. This was one of the contributory causes of the Great Depression of the 1930s. In a related way, discussed below, it has contributed to the current crisis.

4.3. The lethal mix of financial expropriation and investment-banking

The destructive interplay of liquidity and solvency that has marked the current crisis has its roots in the trends outlined above. Commercial banks are intermediaries that essentially borrow short to lend long – they are heavily 'leveraged'. Hence, they need to keep some reasonably liquid assets to deal with deposit-withdrawals; they must also maintain a steady inflow of liquid liabilities to finance their own lending; finally, they must hold significant own capital to take losses on lending and avoid default. These requirements are costly, forcing commercial banks to walk a tightrope between liquidity and solvency.

Financialisation has profoundly disrupted this process.

Consider first the lending, or asset-, side of banking. For commercial banks, engaging in financial expropriation means primarily mortgage- and consumer-lending. But, since mortgages typically have long duration, heavy preponderance would have made bank balance-sheets insupportably illiquid. The answer was securitisation, i.e. adoption of investment-banking techniques. Mortgages were originated but not kept on the balance-sheet. Instead, they were passed onto Special Purpose Vehicles (SPV) created by banks, which then issued mortgage-backed securities.

The creditworthiness of these securities was ascertained by ratings-organisations, and they were also guaranteed (‘credit enhanced’) by specialist credit-insurers. Once they were sold, banks received the original mortgage-advance and could engage in further lending afresh. Mortgage-payments

32. This is as old as banking itself and was discussed by classical political economists. Steuart, for instance, 1767, Book IV, Part I, Chapter I, stressed solvency because he advocated banks making long-term, largely illiquid loans. Smith 1789, Book II, Chapter II, on the other hand, stressed liquidity because he saw banks as suppliers of short-term circulation-funds. The balance is determined in each historical period by the needs of real accumulation, institutional structure, law, and customary bank-practices.
accrued as interest to securities-holders, while all other parties, including the originators of mortgages, earned fees.

For commercial banks, therefore, the adoption of investment-banking practices turned lending (to earn interest) into mediating the circulation of securities (to earn fees). Securitisation was naturally extended to other assets, such as credit-card receivables, automobile-loans, home-equity loans, and so on. In this vein, independent investment-banks created ‘Collateralised Debt Obligations’ (CDOs) by securitising a broad mix of underlying assets, including mortgages, consumer-credit, regular bonds, and even mortgage-backed securities. Banks appeared to have found a way of keeping the asset-side of their balance-sheet permanently liquid, while constantly engaging in fresh lending. This wonderful discovery was called the ‘originate-and-distribute’ banking model.

Commercial and investment-banks might have been spared the worst had they been able to keep away from the witches’ brew they were concocting and selling to others. But, during the bubble, mortgage-backed securities paid high returns and credit was cheap. Thus, banks began to set up ‘Structured Investment Vehicles’ (SIVs), that is, financial companies that raise funds in the money-market to purchase securitised assets, including CDOs. Banks also lent (or set up) a host of other financial institutions (including hedge-funds) for the same purpose.

Bank-assets, finally, grew through the investment-banking practice of trading in ‘Credit Default Swaps’ (CDS). These are derivatives in which one party (the seller) promises fully to reimburse the other (the buyer) for the value of some underlying debt, provided that the buyer pays a regular premium. At the peak of the bubble, their growth was astonishing:

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<td>Credit Default Swaps, notional amount outstanding, $bn</td>
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<td>2005</td>
<td>10211</td>
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Source: BIS various

CDSs are similar to insurance-contracts, thus appearing to offer banks cover for their expanding assets. But they are also excellent vehicles for speculation if, say, the underlying debt is the bond of a company which a bank thinks might go bankrupt. Speculation became the prime purpose of trading in CDSs, adding to the destructive force of the crash.

Consider now the implications of these practices for the liability-side of bank balance-sheets. To sustain expansion through securitisation, banks
needed access to wholesale liquidity, that is, borrowing in the money-market. Independent investment-banks led the trend through ever-greater reliance on issuing paper in the money-market. Inevitably, they were joined by commercial banks. This was why the crisis first burst out in the money-market.

The implications for solvency were equally profound. Investment-banks have traditionally operated with lower capital-requirements than commercial banks owing to the different nature of their business. During the bubble, they drove their capital to extremely low levels, falsely believing that their expanding assets were safe for reasons explained in the next section. This was very profitable while it lasted, but, ultimately, contributed to their downfall as they could not take the eventual losses.

Commercial banks, on the other hand, typically keep higher capital-ratios, which are also closely regulated. Basle I regulations, formalised in 1988, stipulated that internationally active banks should maintain own capital equal to at least 8% of their assets. Basle II, which began to take shape in the late 1990s, allowed banks that use modern risk-management methods (discussed in the next section) to have a lower ratio, if certain of their assets had a lower risk-weighting. The aim of the regulations evidently was to strengthen the solvency of banks. The actual outcome was exactly the opposite.

For, capital is expensive for banks to hold. Consequently, commercial banks strove to evade the regulations by shifting assets off the balance-sheet as well as by trading CDSs, which lowered the risk-weighting of their assets. Therefore, Basle II effectively promoted securitisation. By engaging in investment-banking practices, commercial banks could continually ‘churn’ their capital, seemingly keeping within regulatory limits, while expanding assets on and off the balance-sheet. In this marvellous world, banks appeared to guarantee solvency while becoming more liquid.

When the housing-bubble burst, it became clear that these practices had created widespread solvency-problems for banks. As mortgage-backed assets became worthless, independent US investment-banks were rendered effectively bankrupt in view of extremely low capital-ratios. For the same reason, commercial banks found themselves in a highly precarious position. Even worse, as the crisis unfolded, Basle regulations forced banks to restore capital-ratios precisely when losses were mounting and fresh capital was extremely scarce.

The roots of the disaster that has befallen the world-economy are now easier to see. The ultimate bearers of mortgages in the USA were workers, often of

33. Japanese banks were very fortunate in that they had only just started to engage in the new practices when the bubble burst. Hence they have maintained a large flow of deposits relative to their assets.
the poorest means. Real wages had not risen significantly throughout the bubble even for workers on higher incomes. Thus, the source of value that would ultimately validate both mortgages and mortgage-backed assets was pathetically weak. On this precarious basis, the financial system had built an enormous superstructure of debt, critically undermining its own liquidity and solvency.

Once defaults on subprime mortgages started in full earnest in 2006, securitised assets became very risky. They could not be easily sold, and their prices declined. For SIVs and hedge-funds, this meant that their assets worsened in price and quality, making it impossible to borrow in the money-market. Confronted with bankruptcy, they had to call on the banks that had funded them. Consequently, banks began to take losses, making it necessary to replenish their capital as well as restricting their credit. Naturally, they also became extremely reluctant to lend to each other in the money-market, further tightening liquidity. Fear led to falling stock-markets, which made bank solvency even more precarious. The destructive interplay of liquidity and solvency led to bankruptcy, collapse of credit, shrinking demand, and emerging slump.

4.4. The mismanagement of risk, or what role for banks in financialised capitalism?

The disastrous performance of banks in the course of the bubble poses broader questions regarding their role in financialised capitalism. The classics of Marxism thought that banks play an integrating role in the capitalist economy by collecting information, transferring resources across society, and facilitating the equalisation of the rate of profit. But financialisation has changed things significantly.

Banks evidently need information about their borrowers in order to assess risk and to keep appropriate levels of capital. Mainstream-economics postulates that banks acquire information in qualitative (‘soft’) and quantitative (‘hard’) ways. The former involves regular contact with borrowers, personal relations, visiting the site of borrower-operations, and placing staff on company-boards. The latter involves analysis of quantitative data on companies as well as on markets and the economy as a whole.

Financial expropriation combined with investment-banking has changed the focus of banks from ‘soft’, ‘relational’ methods towards ‘hard’, statistically-driven

34. Lenin 1964, p. 223, thought that banks had become institutions of a truly ‘universal character’ in capitalist society, while Hilferding 1981, p. 368, imagined that the German economy could be controlled through ‘six large Berlin banks’.

35. These are clumsy terms, but their meaning is clear. See Berger and Udell 1995; Berger, Klapper and Udell 2001.
techniques. More specifically, to advance mortgages and consumer-loans, banks have adopted ‘credit scoring’. These are ‘arms-length’ techniques that collect numerical information (income, age, assets, etc.) to produce an individual score that can be manipulated statistically. Loans are advanced if the individual clears a given threshold. Subprime mortgages were precisely loans for which the threshold was low.

Banks have also begun to estimate the risk of default of their assets by applying mathematically-based models that utilise historical rates of default. These estimates are largely extrapolations from past trends, stress-tested within limits indicated by data. Banks have similarly learnt to apply ‘Value at Risk’ methods, which rely on correlations between asset-prices (estimated historically) and on volatility (estimated from stock-market prices).

On this basis, banks estimate their ‘Daily Earnings at Risk’ (DEAR), that is, the probability that the value of their assets would decline below a certain level on a daily basis. Consequently, they can re-adjust the mix of their assets to bring DEAR within acceptable bounds. To this purpose, bank-assets must reflect current market-valuations, rather than historical prices. For this reason, the accounting practice of ‘marking to market’ has prevailed in the course of financialisation.

Inference-based computationally-intensive techniques of risk-management appear ‘hard’ and have a scientific air. They also fit well with the investment-banking functions acquired by commercial banks. During the bubble, it was universally claimed that banks had become experts in ‘slicing, packaging and pricing’ risk. Through securitisation they apparently allowed risk to be held by those who truly wanted it, thus increasing financial stability.

Inference-based management of risk by banks has proven calamitous. For one thing, it uses past prices to calculate correlations, which hardly works in times of the unprecedented co-movements of prices that characterise crises. Furthermore, these techniques may have increased the homogeneity of decision-making by financial intermediaries, thus exacerbating price-swings and general instability.

More fundamentally, the techniques appear to have led to failure by the whole of the financial system to collect necessary information properly to

37. For standard analysis see Saunders and Allen 2002, pp. 84–106; Duffie and Singleton 2003, pp. 31–42.
38. Allen and Santomero 1998 and 1999 have argued that these changes showed that the deeper function of banks in contemporary capitalism is to manage risk in formal ways.
39. It goes without saying that the change would have been impossible without the widespread adoption of information-technology by banks. See Lapavitsas and Dos Santos 2008.
assess risk.\textsuperscript{41} Mortgages were advanced on the basis of ‘credit scoring’ and on the understanding that they would be rapidly securitised. The mortgage-backed securities were assessed by credit-rating organisations, which were paid by banks and thus had a vested interest in awarding excellent grades to securities to ensure rapid sales. Moreover, their assessment of risk was also based on inference-based techniques. The buyers then acquired the new securities on the blind assumption that all was fine.

At no point in the process was there genuine due diligence done on the original loans and subsequent securitisations. Banks imagined that they were shifting risk onto others through securitisation. In effect, they were simply giving a different form to risk as loans to SIVs, hedge-funds and so on. When mortgage-defaults started, the true extent of risk became apparent, and banks were ruined.

Put differently, the turn of banks toward financial expropriation and financial-market mediation has resulted in loss of capacity to collect information and assess risk on a ‘relational’ basis. Banks have acquired some of the character of the broker, while partially losing that of the financial intermediary. This has created problems in assessing borrower-creditworthiness in a socially valid way. For, in a capitalist economy, this task has traditionally been undertaken through partly ‘relational’ interactions of banks with other institutions and markets in the financial system.\textsuperscript{42}

The picture that emerges for commercial banks is bleak. They are no longer major providers of investment-finance to corporate enterprises; their capacity to collect information and assess risk has been compromised; and their mediation of workers’ needs has been catastrophic. But, then, what is their future in the capitalist economy? To be sure, they still play a vital role in creating money and operating the payments-mechanism. Yet, this is not a specifically banking activity, and could be taken over by other institutions, such as the post-office. Is there a future banking role for the enormous banks of financialised capitalism? This is one of the most complex problems posed by the current crisis, and the answer is far from obvious. Needless to say, it immediately raises the issue of public ownership and control of banks, a long-standing socialist demand.

\textsuperscript{41} To call this ‘mispricing of risk’ is uncharacteristically lame of Goodhart 2008. The real issue is systemic failure to apprehend risk altogether.

\textsuperscript{42} See Lapavitsas 2003, Chapter 4.
5. Social aspects of financialisation: the return of the rentier?

It was shown above that the current crisis is a result of financialisation, which is a systemic transformation of the capitalist economy pivoting on the financial system and involving new sources of profit. In the rest of this article, the preceding analysis is placed in a broader context by considering social and political aspects of financialisation. This section, then, considers the renewed prominence of *rentiers*, who are often associated with income and wealth accruing through the financial sector and have contributed to the rise of inequality during this period. Is financialisation a new era of the *rentier* and, if so, in what way?

Much of the literature on financialisation assumes (sometimes tacitly) that the ascendancy of the idle *rentier* characterises contemporary capitalism. This is, at heart, a Keynesian approach arguing that the *rentier* slows down the rhythm of accumulation either by depriving the active capitalist of funds, or by raising interest-rates. It is shown below that there are significant problems to analysing financialisation by counter-posing idle *rentier* to functioning capitalist.

Analysis of the *rentier* can be found in Marxist political economy, with the occasional reference coming directly from Marx. The strongest impact was made by Lenin’s discussion of ‘parasitical rentiers’ in his classic theory of imperialism. Lenin took the idea from Hobson, the liberal critic of imperialism. The bulk of Lenin’s economic analysis, on the other hand, drew on Hilferding, in whose work there is no mention of the ‘parasitical rentier’. Hilferding did not relate finance to *rentiers* but – basing himself on Marx – argued that the financial system emerges necessarily out of real accumulation. Informed by German capitalism, he also had no truck with the notion that real accumulation runs into difficulties because idle *rentiers* constrain active industrialists.

Underpinning Marxist views on the *rentier* is the concept of interest-bearing (or loanable) capital. However, there is some ambiguity in Marx’s analysis of the sources of interest-bearing capital, which matters for the analysis of *rentiers*. At times, Marx treats interest-bearing capital as belonging to ‘moneied’ capitalists, who are a subsection of the capitalist class. ‘Moneyed’

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44. For instance Marx 1981, Chapter 22.
45. Lenin 1964, pp. 276–85.
46. Hobson 1938, Chapter 4.
47. Introduced by Marx in 1981, Part 5.
capitalists lend capital to others, and are satisfied with interest which is a share of profits. Though Marx did not use the term in this context, ‘moneymed’ capitalists are essentially rentiers, in contrast to active capitalists who borrow capital to generate profits.

At other times, however, Marx suggests that loanable capital arises out of idle money generated in the normal course of the operations of industrial and commercial capital.\(^{49}\) Thus, loanable capital does not belong to a distinct subsection of the capitalist class, but is constantly recreated in the course of real accumulation. The main function of the credit-system is to mobilise idle funds, transforming them into loanable money-capital and channelling them back to accumulation. Along these lines, Hilferding specifies the sources of idle money as well as the complex ways in which it becomes loanable capital.\(^{50}\)

One merit of the latter approach is that it cuts through some of the confusions surrounding the current debate on rentiers and financialisation. For, the income of those who might be categorised as contemporary rentiers does not arise merely from possession of loanable capital. The managers of hedge-funds, for instance, draw extraordinary incomes typically from fees and percentage of the annual profits. These incomes derive from using the money of others to speculate on financial assets. Remuneration often takes the form of further financial assets, bringing capital-gains and evading taxation. Similarly, industrial managers draw incomes in the form of stock-options and other financial mechanisms, often masquerading as salaries. Substantial incomes, finally, accrue to accountants, lawyers and others who provide the technical support necessary for financial operations.

Such incomes are due in part to position and function of the recipient relative to the financial system, rather than simply to ownership of loanable money-capital, or even of idle money. Modern rentiers, in other words, are not plain money-holders who avoid the grubby business of production. They frequently own loanable capital, but their ability to command extraordinary income is also mediated by position relative to the financial system. Indeed, they do not even have to function within the financial system, as is clear, for instance, for industrial and commercial managers.

The rentier as owner of loanable capital at loggerheads with the industrial capitalist is of limited relevance to contemporary capitalism. This is even more apparent in relation to institutional investors. Pension-funds, insurance-companies, investment-funds, and so on, collect idle money leaked from the


\(^{50}\) Hilferding 1981, pp. 70–81.
income of broad layers of working people. They provide scope for financial intermediaries to generate profits through handling such funds. But they also generate returns for ‘financialised’ individuals across social classes. They certainly do not distribute their earnings to a well-demarcated social group of *rentiers*.

Similarly, it is erroneous to treat the aggregate profits of financial institutions as a measure of *rentier*-income. Financial institutions – above all, banks – are not parasites subsisting on the profit-flows of industrious productive capitalists. In principle, they are capitalist enterprises offering necessary services in the sphere of circulation. They are thus subject to competition and tend to earn the average rate of profit. Financialisation has entailed a turn toward financial expropriation and financial-market mediation. But there are no grounds for treating financial institution profits as proxy for *rentier*-income.

To recap, insofar as a *rentier*-layer can be identified today, it has resulted from the development of the financial system. It draws income from position relative to the financial system as well as from ownership of loanable capital. More broadly, the ability to extract rent-like income through financial operations is a by-product of the transformation of finance rather than its driving force. The ascendancy of finance has systemic origins, and its outcomes are far more complex than industrialists being presumably squeezed by *rentiers*. By the same token, confronting financialisation does not mean supporting hard-working industry against idle finance.

6. **Instead of a conclusion: is financialisation a new era of finance-capital?**

The final issue to be considered in this article is the analogy between financialisation and the ascendancy of finance at the turn of the twentieth century. The latter was, of course, analysed in the classical-Marxist debates on imperialism. Hilferding put forth the pivotal concept of finance-capital, capturing the epochal change that resulted from the altered relationship between industrial and banking capital. For Hilferding, as the scale of production grows, monopolistic industrial capital relies increasingly on monopolistic banks for investment-finance, until the two become amalgamated, with banks in the ascendant. This is finance-capital, which dominates the economy, progressively restricting competition and ‘organising’ the economy to serve its interests.

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Hilferding analysis provided foundations for Lenin's subsequently canonical formulation of the concept of imperialism. Bauer had already established that cartels demanded aggressive tariffs to create exclusive trading areas for themselves.\(^53\) Hilferding argued that cartels also exported money-capital to less developed countries to take advantage of lower wages. This was the end of British 'laissez-faire' capitalism, replaced by German and US finance-capital. The late developers relied on the power of the state, hence spurring militarism and imperialism, with attendant racism. Lenin's theory stressed monopoly more strongly, also introducing parasitical rentiers and the territorial re-division of the world among imperialist powers. But the underlying economics came from Hilferding.\(^54\)

Hilferding's and Lenin's analysis of finance-capital and imperialism is a masterpiece of political economy, shedding light on the ascendancy of finance and its implications for economy, society and politics. The analysis looked somewhat frayed during the long postwar-boom, since finance was strongly regulated, the USA subsumed imperialist divisions under its struggle against the Soviet Union, and a wave of liberation-movements destroyed the old empires. But the rise of financialisation appears to have injected fresh life into it. Does financialisation represent a return of finance-capital? The short answer is no, but the analogy casts light on the current period for the following reasons.

First, as was shown above, banks and large industrial or commercial enterprises have not come closer together in recent decades, and nor is there evidence that banks hold the upper hand in relations with industry. Large corporations have become more distant from banks, while independently engaging in financial transactions. Banks have sought profits in 'financialised' personal incomes as well as in mediating transactions in open financial markets.

Second, the character of financial systems has changed in ways incompatible with the theory of finance-capital. All financial systems have common elements but the balance between them depends on stage of development, history, institutional structure, law and politics. A typical distinction is between market-based, or Anglo-American, and bank-based, or German-Japanese financial systems.\(^55\) Broadly speaking, in market-based systems, the weight of open financial markets is greater, while banks and industry have arms-length relations. In contrast, bank-based systems have prominent credit-systems and

\(^{53}\) Bauer 2000.

\(^{54}\) In contrast to Luxemburg 1951, who ignored finance-capital in her analysis of imperialism.

\(^{55}\) Also used in mainstream-economics, for instance, Allen & Gale 2001.
close relations between banks and industry, often involving exchange of personnel and mutual share-holding.

Hilferding’s theory of finance-capital is one of the earliest analyses of bank-based financial systems. Implicit in his theory is that financial systems become progressively bank-based as finance-capital emerges. However, the rise of open financial markets, and the transformation of banks in recent decades are not consistent with such a trend. On the contrary, there has been a global shift toward market-based systems, drawing on the US model, though bank-based systems have not disappeared by any means.

Third, for both Hilferding and Lenin, exclusive trading zones are vital to the emergence of territorial empires. But financialised capitalism has not produced phenomena of this type; instead, there have been pressures for lower tariffs and a homogeneous institutional framework of trading. To be sure, the process has been uneven and contradictory, typically involving discrimination against less-developed countries. States have also created trading blocs (above all, the European Union and NAFTA), though these are not generally exclusive. In all, there has been nothing comparable to the competitive imposition of tariffs that characterised the era of finance-capital.

Fourth, Hilferding’s theory has little to say on the systematic intervention of the state in the sphere of finance, despite his predilection for ‘organised’ capitalism.56 But the state has been pivotal to the rise of financialisation. For one thing, the state has pursued financial deregulation. For another, the state is the power behind the central bank both through supplying it with bonds and through declaring central-bank liabilities to be legal tender. Without the state’s backing, central banks would have been much less effective during the crises of financialisation. More broadly, the state has emerged as the ultimate guarantor of the solvency of large banks and of the stability of the financial system as a whole.

Finally, fifth, financialisation has been accompanied by extraordinary turbulence in the international monetary system. Gold – the world-money of Hilferding’s and Lenin’s day – has become marginal to the international monetary system, a reserve of last resort. In the absence of a genuine anchor, the US dollar has gradually emerged as quasi-world-money. It was shown above that developing countries have been forced to accumulate enormous dollar-reserves in recent years. This has benefited primarily the USA since poor countries have supplied with loanable capital, thus allowing it to sustain substantial trade-deficits. But the leading imperialist country has also paid a price as the housing-bubble intensified, leading to the current crisis.

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56. The same holds for Bukharin 1972, despite his strong emphasis on ‘organised’ capitalism.
Financialisation, in short, does not amount to dominance of banks over industrial and commercial capital. It stands rather for increasing autonomy of the financial sector. Industrial and commercial capitals are able to borrow in open financial markets, thus becoming heavily implicated in financial transactions. Financial institutions have sought new sources of profitability in financial expropriation and investment-banking. Meanwhile, workers have been increasingly drawn into the realm of private finance to meet basic needs, including housing, consumption, education, health and provision for old age. This has been an era of unstable and low growth, stagnant real wages, and frequent financial bubbles. The current crisis represents a gigantic concatenation of the imbalances, tensions and exploitative aspects of financialised capitalism. The need for alternative economic organisation that is crisis-free while serving the interests of working people is apparent.

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