

## **Zysman Thirty Years On: The Political Economy of Finance Revisited**

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Words 8765 (with figures and tables).

### **Abstract**

Comparative Political Economy (CPE) has been unable to explain the differential impact of the recent international financial crisis on advanced industrialized economies. We focus mostly on the changes in banking activities to help explain change in national financial systems. This article offers a ‘market-based banking’ framework which transcends the typology of Zysman (1983) that originally identified three varieties of national financial capitalism. We demonstrate why the bank credit-based versus capital market-based distinction of the traditional typology is obsolete through an appreciation of the activities of banks. We place the framework within the context of the political economy literature with particular focus on how well the literature can explain the phenomenon of change. In this way we are ‘bringing the bankers back in’ to the literature on the political economy of finance.

### **Introduction**

The sub-discipline of Comparative Political Economy (CPE) has been unable to explain the differential impact of the recent financial crisis on advanced industrialized economies. This inability stems directly from the typologies with which CPE scholars have been working for the past thirty years. The aim of our special issue is to demonstrate why the traditional typology of the financial systems of advanced

industrialized economies is obsolete through an appreciation of the activities of banks. We propose market-based banking as a model and analytical tool that can be applied to financial systems to explain change.

Thirty years ago, John Zysman (1983) published what rapidly became the work of reference on the political economy of national financial systems: *Government, Markets and Growth: Financial Systems and the Politics of Industrial Change*. In his study, Zysman outlines three main varieties of financial capitalism (VoFC): government-led credit-based, bank credit-based and capital market-based. Since the publication of Zysman's book, the government-led variety has been reformed largely out of existence but the distinction between bank credit-based and capital market-based varieties remains the principal way in which financial systems are characterized. Relatively few political economy studies have since queried the analytical usefulness of Zysman's typology. Credit-based financial systems are seen as a core element of the varieties of capitalism (VoC) found in the bulk of European economies and Japan, labeled as coordinated market economies (CMEs) (Hall and Soskice 2001a), and the mixed market economies (MMEs) of Southern Europe (Hancké, Rhodes and Thatcher 2007). The capital market-based financial system is similarly a core element of another variety of capitalism, referred to as the liberal market economy (LME) (Hall and Soskice 2001a) and typified by the United States and the United Kingdom.

The aim of this special issue is to offer an 'updated' framework to study the development of national financial systems over the decade prior to the international financial crisis that erupted in 2007 and that came to a climax in 2008. By focusing on choices that bankers make about their business activities, we are able to pinpoint to drivers for change in national financial systems. We refer to these activities as

‘market-based banking’ (Hardie and Howarth, this volume). The papers of this special issue examine market-based banking in the individual country and comparative studies, which examine both financial system change and the impact of the financial crisis.

This introductory paper is structured as follows. Section one reviews the Zysman framework and places it in the political economy literature. Section two explains how well scholars of the political economy of finance explain the phenomenon of change. The third section describes the market-based banking model in the context of the broader national financial political system and examines the impact of market-based banking on the domestic political economy.

### **Zysman’s legacy: describing the financial system for political scientists**

Over the past thirty years, the literature on political economy of finance has started from the premise that financial systems shape the availability of capital to actors through differential pricing. The resulting access and pricing structure has political and economic implications. The sub-fields of International Political Economy (IPE) and Comparative Political Economy (CPE) both deal with the political economy of finance. Normally the distinction between IPE and CPE is relevant, with the IPE literature usually focusing on the general trends at a higher level of analysis and the CPE literature typically examining how national political economies differ from one another. But in studying the political economy of finance these distinctions often blur with international causes and consequences interspersing with a ‘closed economy’ analysis that views the financial sector as part of a complex national economic, political and social system.

Differences in national systems of finance have rarely been the object of study in CPE. Rather, most CPE studies assume that the financial sector fits a standard depiction and then construct an analysis about the interaction of the assumed financial system with other elements of the domestic political economy—including state and non-state actors—and then analyze the resulting economic outcomes. By contrast, differences in national systems of finance have been the object of study in IPE (see below), economic sociology (Krippner 2005) and financial economics – a sub-field that clearly noticed developments in banks and their impact upon national financial systems (Corrigan 1982; Hackethal 2001, Kaufman 2009; Rajan 1998; Rajan and Zingales 2003 and Schmidt, Hackethal and Tyrell 2001<sup>1</sup>).

Zysman's (1983) main contribution was to show how three different types of national financial structures, depicted as relatively static, shaped the scope for government action and industrial development. Zysman's contribution was institutionalist in that he placed emphasis upon longstanding institutional structures that determine the policy alternatives open to both government actors and financial

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<sup>1</sup> Change was evident even in the early 1980s, to policy makers such as Gerald Corrigan (1982), and with the benefit of hindsight (e.g., Krippner 2005; Kaufman 2009). By 1995 a practitioner could write *Securitization: Redefining the Bank* (Feeney 1995). A range of economists also saw and sought to explain the decreasing importance of commercial banks in the context of financial systems (Rajan 1998), although many of these arguments applied to the United States alone. Rajan and Zingales (2003) who predicted a limit to the development of market-based systems in European financial systems see political factors as most relevant, ignoring developments in banking that have had a much greater impact.

market operators. He differentiated between three types of national financial markets, dominated by different financial activities. His first was a capital market-based financial system with the United States and the United Kingdom as the main examples. His second was a credit-based financial system in which governments set prices and intervened in the market – with France and Japan as prime examples. The third was a credit-based financial system in which bank institutions played an important role in the economy intermediating between household savers and entrepreneurs with less government intervention to set the price of credit than in the French and Japanese cases. Zysman uses the Federal Republic of Germany to illustrate this case.

Zysman's insights found their way into the Varieties of Capitalism (VoC) literature (Hall and Soskice 2001a, 2, 45, 309, 320). His views were simplified and lumped into two main typologies: first, a liberal market economy (LME) based on capital market finance, and second a coordinated market economy (CME) based on bank credit. Although there has been more nuanced categorization of the varieties of capitalism typologies by identifying new types, such as mixed market economies (MMEs), (see for instance Hancké, Rhodes and Thatcher 2007, and others, such as Whitley 1999, Amable 2003, Wood and Frynas, 2006), there has been very little effort in unpackaging Zysman's understanding of national financial systems as such.

The VoC literature rests on often untested assumptions that the discipline imposed through dispersed ownership and take-over threats in capital market-based financial systems squeezes out labour protections, social welfare policies and a host of other social, political and economic characteristics. The key causal mechanism in this literature stems from the concentration or dispersion of share ownership, which is examined closely (Gourevitch and Shinn 2005) revealing significant cross-national

variation. Patient capital is the core observable feature of CMEs and it allows national political economies to maintain their distinctive variety of capitalism rather than converging on the liberal market model (Schmidt 2002, Culpepper 2005). The continued viability of this institutional diversity hinges on the ability of coordinated financial systems, such as those in Germany and Japan, to shield company managers from the short-term imperatives characteristic of liberal market economies (Culpepper 2005). Zysman's various financial systems are relatively invariant and dichotomous because of interlocking institutional complementarities that arise when firms approach coordination with all their stakeholders through market transactions or via strategic interactions (Hall and Gringerich 2009).

Generally, the examination of national financial systems was not in the mainstream of the VoC literature, which has maintained a more narrow focus on the welfare state component of national systems of capitalism or labour relations within the state (cf. Hicks 1988, Hall and Soskice 2001a, Hancké, Rhodes and Thatcher 2007). The role of the financial sector and the relationship between government and the financial system domestically is relatively under-examined in this literature (but yet, see Kurzer 1993).

The depiction of national financial systems originating with Zysman and the 'dichotomous framing' employed in the VoC literature (Culpepper 2005, Clift 2007) does not fit the character of national financial systems in the 2000s. Banks (measured in terms of assets) increased their presence in national financial systems at the expense of equity in the large majority of advanced industrialized economies – including the LMEs. Trends in Non Financial Corporation (NFC) financing further question existing depictions. The rise in both bank lending and bank assets to Gross

Domestic Product (GDP) were most marked in the United Kingdom.<sup>2</sup> Indeed, the result left the Bank of England highlighting ‘the potential benefits of lowering the economy’s reliance on bank finance’ (Bank of England 2009: 11). But in a range of other countries that had seen a previous shift towards market-based capitalism – notably France and the Netherlands – the direction was reversed in the 2000s. An examination of NFC external funding is provided in Figure and Table 1. Here, we see the increased reliance of NFCs on bank lending in both real and relative terms in the seven years preceding the financial crisis in six of the ten countries studied in this special issue.

[Figure 1, followed by Table 1 ABOUT HERE]

The data in Figure and Table 2 provide the second principal method of distinguishing between national financial systems by focusing upon the relative amounts of bank assets, private sector securities and equity markets (as in Allen and Gale 2000). Here the increased real *and* relative size and importance of banks in national financial systems is indicated in *all* the countries except one (Japan<sup>3</sup>).

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<sup>2</sup> Table 1 below does not include figures for outstanding equity issuance by British NFCs because this data is not collected. Rather Bank of England and London Stock Exchange data covers annual flows (rise in equity issuance on an annual basis).

<sup>3</sup> The Japanese exception (where NFCs have relied increasingly on equity issues and a significant drop in borrowing from banks) reflects in part the limited engagement with market-based banking by Japanese banks (see Kamikawa, this volume). Total bank lending also dropped in Japan.

However, rather than interpreting these data in terms of a return to the more bank-based financial systems of the past, we argue that it is necessary to understand banking and financial markets as intertwined.

[Figure 2, followed by Table 2 ABOUT HERE]

### **Sources of Change in the Political Economy of Finance Literature**

Most of the CPE literature that invokes a role for financial systems in advanced industrial economies sees the financial system as invariant. Recently, the institutionalist literature on capitalism has begun to explore sources of change in domestic political economies, but none focus, as this volume does, on banks' choices about business activities. Banking business has been construed as a source of change in the IPE literature to a much greater extent than in the CPE literature.

Dating to the early development of dependency theory (Frank 1967; 1978), the role of banks and cycles of liquidity in the international economy were depicted as an important factor conditioning the domestic political economy. Evans described change in Brazil's economy as a consequence of foreign borrowing. Frieden (1981) coined the term 'indebted development' and outlined a framework for describing change in developing economies in which an important source of dynamism came from domestic actors' relationships with international banks.

As the nature of international financial markets changed after the 1970s with significant growth in global bond markets, IPE scholars both made these changes an object of study and explored the way change in international financial markets shaped domestic political economy (Strange 1988). Scholars researched the transmission

mechanisms linking global financial markets with constrained choice by domestic actors including governments and firms (Maxfield 1998), and debated the ability of governments to control finance (e.g., Helleiner 1994, Pauly 1995, Strange 1996), a debate with clear relevance to our view that CPE must focus not only on regulation, but on financial market actors as agents. Disaggregating international financial activities of banks permitted close examination of differences between types of capital flows and markets (foreign direct investment, bond purchases and sales; stock investments; loans). Some scholars depict portfolio investors financial strategies (asset class and country preferences) as a hard constraint on national governments and firms (Davis 1996, Useem 1996, Morin 2000, Davis and Steil 2001, and Goyer 2001) while others paint a more nuanced picture (Mosley 2003).

IPE literature has embraced how domestic political economy might shape the pace and sequencing of capital account liberalization through which the international financial markets in turn impact upon the domestic political economy (Andrews 1994, Pauly 1998, Abdelal 2007). Thomas Pepinsky (2011), for example, describes the political role and policy stance of domestic banks in Latin America toward capital account opening. They favor liberalization of portfolio outflows but protection from inward foreign direct investment that would allow foreign banks into the domestic market where they would put competitive pressure on domestic banks.

The focus on different forms of capital flows and the different aspects of the international banking business they reflect helped scholarship on the IPE of finance remain more current with changes in financial markets than the CPE literature. It also demanded analytical framing capable of addressing questions about change in financial systems and markets. This helped bring nuance to an older dichotomous positioning that international finance either signals the eclipse of the state (Evans

1979) because capital mobility is a uniformly binding determinant of the scope for government (Goodman and Pauly 1993, Andrews 1994, Webb 1995) or firm action that does not constrain the state because international financial market evolution hinges on government policy (Helleiner 1996, see also Stopfield, Strange and Henley 1991). Moving beyond this dichotomous positioning, many scholars have explored the interaction between national governments and international financial markets. Political economy studies of financial market integration also focus on the actions and responses by individual states to these challenges (see, for example, Deeg (1999) on Germany; Katz (1998) on Japan; Loriaux (1991) on France and Verdun (2000) on Britain, France and Germany).

While dichotomous positioning is still characteristic of the CPE of capitalism, the literature includes a recent turn to exploring sources of change. Streeck (2004) focuses upon the role of governments and Hall and Thelen (2009) theorize about the role of both governments and firms. A long-standing research stream at the intersection of CPE and management studies explores the way that NFC preferences and operations explain shifts in national capitalism and associated institutional characteristics (Whitley 1992, 1999; Guillén 2001, Aguilera and Jackson 2003, Crouch 2005, Hancké and Goyer 2005).

As the CPE literature begins to theorize sources of change in national capitalism and market institutions, the time is ripe to investigate sources of change in financial institutions and systems and correct the long-standing tendency to take the financial system as an invariant part of an explanation for other aspects of the domestic political economy. A small number of CPE scholars have placed emphasis on the agency of domestic actors in shaping national financial system change (Crouch 2005, Deeg 2007, Jackson and Deeg 2008). Busch (2009) and Deeg (2005) focus on

the importance of governments in shaping financial systems through regulation and supervision. Parallel to this are studies by economists focused on the impact of regulation upon the behavior of financial sector agents (see, for example, Hellmann Murdock and Stiglitz 2000, Barth, Caprio and Levine 2006, Leaven and Levine 2009).

Government actions shaping national financial systems extend beyond regulation narrowly defined to ‘industrial’ or ‘sectoral’ policy that amounts to protecting certain financial business sectors from competition and/or encouraging development in new arenas. O’Sullivan (2007), for example, depicts the crucial role of the French state in directing financial market reform and driving the creation of the domestic bond market. Similarly Posner (2005, 2009) outlines the role of the European Commission in pushing the creation of European stock markets. Other CPE scholarship aims to explain sources of change in national financial systems, emphasizing NFCs’ funding strategies or bank-NFC interactions as the independent variable (Culpepper 2005, O’Sullivan 2007, Erturk and Solari 2007, Deeg 2010).

Generally, comparative political economists have not examined the role of bankers themselves as an autonomous and primary driver of change in national financial systems, as we do here. This is curious, given the importance of banks to most financial systems in providing a significant proportion of NFC external finance – even in the Anglo-American systems. The market-based banking model introduced here focuses on a particular set of business activities banks chose increasingly in many advanced industrial economies beginning in the late 1990s. The sources of dynamism in this volume are the choices of bankers about their business activities, and the aspects of the broader environment that shape those choices.

The papers in this special issue emphasise the role of banks as agents: making business decisions, engaging in financial innovation and responding to their own experience in the market (including their experience with global liquidity and previous banking crises) and not just as institutionally-embedded actors (Crouch 2005; Hall and Thelen 2009). Nonetheless, the papers that follow varyingly highlight one or more of six different institutional factors shaping bankers' business choices: banking regulation (capital stringency), banking supervision, corporate governance rules, fiscal (tax) policy, the structure of other financial institutions in place (notably equity and bond markets) and protectionism in the banking sector (both direct and indirect forms). There is overlap here: notably protectionism is often achieved through corporate governance rules and fiscal policies. In their depiction of these different considerations that may underpin bankers' choices about business activities, the papers in this volume rub elbows with several other streams of research, such as the literature on the political economy of regulation and supervision (Pagano and Volpin 2001, Underhill 2010, Quaglia 2011). Regulation and supervision reflect the previous history of banking crises (Busch 2009; Royo, this volume; Kamikawa, this volume). Another related arena of inquiry addresses the impact of corporate governance structures on the behavior of financial institutions (Barth *et al.* 2006). Laeven and Levine (2009) point to riskier behavior for banks where shareholders have more say.

National capital and regulatory regimes shaped banking activities and have been widely perceived as the principal factors contributing to the impact of the financial crisis. However there are limits to the regulation, supervision and corporate governance explanations for bankers' choices. The data produced by Barth *et al.* (2006) on capital stringency and bank regulation show the diversity of regulatory practice in our case countries and Table 3 juxtaposes this data with different levels of

write-downs on financial assets and public funds drawn upon by banks. Regulation is a moderately good predictor with regard to Italy, Greece and Spain, where market-based banking levels were comparatively low, in part because of capital stringency and regulation, and the direct impact of the financial crisis on banking systems limited. However, a focus upon regulation alone is less useful in teasing out the differences with regard to other countries where scores are similar (as with the Netherlands, Germany and France), but the forms of market-based banking and the impact of the financial crisis are considerably different. Such a superficial focus on regulation most obviously fails to predict the impact of the financial crisis on the US. One might criticize the values the authors assign to regulatory regimes, not the relevance of regulation per se. However, it remains that several other factors contributed to the different levels and forms of market-based banking in national banking systems.

[TABLE 3 ABOUT HERE]

Table 3 also demonstrates the ambiguous correlation between the development of market-based banking, the impact of the financial crisis and traditional categorizations of varieties of (financial) capitalism. For example, in LMEs—notably the US, UK and Ireland—market-based banking had developed further than most other national economies and the economies were hit particularly hard during the financial crisis. Similarly, the so-called mixed market economies of Southern Europe—Spain, Italy and Greece—developed less market-based banking and were largely spared the direct impact of the financial crisis. However, there are several cases where banking activities and the impact of the financial crisis do not conform to

the variety of capitalism—thus several CMEs, including Germany, Belgium and the Netherlands were hit very hard by the financial crisis which has been otherwise associated with LMEs. Similarly, it can be added, LMEs including Australia and Canada suffered little (Porter 2010, Leblond 2011). This lack of a clear correlation suggests the need for a new way of analyzing and distinguishing financial systems and one that provides an explanation of change.

Even in the cases where tight bank regulation corresponded to limited financial crisis, there remain significant differences in banks' engagement with the market. Spain for example had very high levels of securitized lending (that is, banks transforming loans into Asset-Backed Securities (ABS)) which contributed to the property market bubble in that country. Thus, while the financial crisis did not have a devastating direct impact on most Spanish banks, the collapse in demand for ABS had a knock-on effect on Spanish bank lending, the bursting of the asset price bubble and a seemingly rather more 'traditional' banking crisis (Royo, this volume).

The papers of the special issue also touch upon deeper macroeconomic variables that have shaped banking activities: notably, the current account position of a country, household savings rates, levels of household debt, and the structure of housing markets. In Germany, a significant element of the crisis was the purchase of large quantities of ABS by a range of banks – a direct reflection of the country's surplus position.

An understanding of what shapes the extent to which bankers embrace different kinds of products or lines of business activity must take into consideration the broader range of variables outlined here. The papers in this special issue do not, however, test these variables formally. The focus is upon the activities of banks. However, most if not all of the variables are discussed in each of the papers as

relevant, to contribute to a more complete understanding of the national varieties of financial capitalism.

### **The Impact of Market-Based Banking on the Domestic Political Economy**

Zysman's book is a foundation to this special issue in two ways. Zysman described the business of banking for a political science audience and he developed a theory of how bank activities created a structure that influenced government capacity to steer the economy and shaped government-business interactions. This special issue also aims to bring to political science a nuanced and contemporary picture of the banking business. While the special issue articles focus in more detail on describing banking activity, and secondarily on some of the factors that shape bankers' choices about the extent to which they engage in market-based banking, banking is relevant to political science also for its impact on social groups and governments.

The starting point for our discussion of the ways market-based banking might impact upon government, the real economy, and different stakeholders, is how financial institutions make money. The literature on varieties of capitalism implicitly suggests that financial institutions have two possible business models. In one model predominant in bank-based or credit-market systems, financial institutions make loans at higher interest rates than they pay on deposits. The banks intermediate between householder savers and entrepreneur borrowers and, usually, home-owners. Banks' 'funding base' in this system is household deposits. In the second model which predominates in the capital market-based system, financial institutions underwrite initial stock or bond offerings and are fee-taking brokers buying and selling those stocks or bonds for retail or institutional customers and, usually, trading those stocks

or bonds for ‘the house’ (the financial institution itself). In this system, financial institutions intermediate between saver-investors and entrepreneurs. The funding base of these financial institutions is owners’ or partners’ equity. (Until relatively recently, the corporate governance structure of investment banks was a private partnership model.)

In the third model evident in the articles included in this special issue, financial institutions rely on the market to enable their lending in a variety of ways (see Hardie and Howarth, this volume). To varying degrees in our different country cases, this business model exists alongside the more traditional business models. In this market-based banking, banks and other financial institutions create, trade and use as collateral for additional borrowing, ‘structured’ financial products, often involving asset securitization and various other techniques for enhancing credit that allow credit and credit derivative markets to expand, but in complex ‘production’ chains of financial assets. At the base of that chain, a bank or financial institution intermediates between a saver and a household or entrepreneur borrower by making a loan, but the ‘saver’ is increasingly another financial institution investing through the market. This is a credit-driven model, but the loan originator, unlike the classic bank-based model in Zysman’s world, is less and less likely to be dependent on deposit-taking. In this model, commercial banks increasingly depend on borrowing from financial markets to finance their lending, and parallel banks, any financial institution that lends but does not take in deposits (and therefore does not enjoy lender of last resort support from a central bank), have taken on a share of the loan origination business of commercial banks. These parallel banks are almost totally dependent on the market to finance their borrowing.

The political economy of each system differs in simple but important ways. In the credit market-based system the financial institution transforms savings into investment, intermediating between the saving public and the investing entrepreneur. In this model the major risk is borne by the banks in the unlikely case of a run by savers who withdraw deposits. In the capital market-based system as conceived in the existing VoC and VoFC literature, the financial institution transforms savings into investment by intermediating between the investing public (individuals or institutions) and the entrepreneur. In this second instance the financial institution pushes off risk of failure in the enterprise sector to the investing public. The main locus of risk in this system is the failing enterprise.

In the third business model outlined in this special issue, the financial institution transforms debt into investment by intermediating between debtors and investors who are predominantly other financial institutions. Pooling of underlying receivables in the creation of securitized assets appears to lower risk. Helping with this risk lowering are insurance companies and rating agencies. The entrepreneur from outside the financial sector is not a major focus in this business model. The main locus of risk is, as in the classic credit-based system, the financial institution. It faces a new type of bank run caused not by depositors but by other, much more skittish, financial institutions.

In this special issue we label this third business model as market-based banking which can be seen as overlapping to some extent with ‘financialization’, defined here as the increased trading of, and exposure to, risk. The latter term has been defined in a variety of ways in the literature (see Engelen, 2008, Ertürk, Froud,

Johal, Leaver and Williams 2008, see also Hardie and Howarth 2009).<sup>4</sup> The usage here is closest to Aglietta and Breton (2001, 437), although financialization is not a term they employ. They link the change from a bank-based to a more market-based financial system to financial liberalization and financial innovation linked to technological advance. They also recognise how banks add a ‘new market portfolio’ to their ‘traditional credit portfolio’ (Aglietta and Breton 2001, 441, see also Froud, Leaver and Williams 2007). The financialization of banks involves a range of activities: from increasing retail operations internationally (a relatively low exposure to risk, depending on the host country); to derivatives trading and investment in complex securities; to raising funds on the wholesale markets (interbank borrowing, issue of securities, etc.). Securitization is an advanced form of financialization: the financial technique through which a financial institution converts assets (e.g. mortgages or other loans) into tradable instruments (such as ABS or Asset-Backed Commercial Paper (ABCP)) which financial institutions can sell off to raise capital. This permits these institutions to reduce the size of their assets and therefore reduce their solvency ratio (assets / liquid capital) and meet international and/or European guidelines. Securitization enables a financial institution to offer more lending or purchase other assets. Securitization involves ‘shadow banking’ – that part of the financial system that is absolutely or partially off the balance sheet of banks only because of the availability of market funding (Pozsar, Adrian, Ashcraft and Boesky 2010).

In economies where the third business model defined above increasingly dominated bank strategy and market-based banking spread, there was a rapid

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<sup>4</sup> ‘Financialization’ is also not well defined in this literature, as admitted by those researching the phenomenon (Krippner 2005, Dore 2008, Goldstein 2009).

expansion of credit which fueled significant growth in the financial sector compared to the non-financial sector and a dramatic increase in financial sector profits in both real and relative terms. The expansion of financial assets and more specifically bank assets since the 1980s has been dramatic and the expansion in the seven years from 2000 to 2007 quickened (see Table 2 above). The flip-side was that where this business model increasingly dominated, governments faced increasing implicit liabilities associated with the threat of bank runs initiated not by depositors but other financial market actors, including other banks. Non-financial sector firms and households enjoyed more and lower cost options to borrow at arms-length from financial institutions thanks to risk-reducing loan pooling. As long as debt levels were sustainable and risk was genuinely dispersed in the financial sector, this system could permit consumption smoothing for households and investment smoothing for NFCs. This market-based consumption and investment smoothing was however a boon to governments only as long as it was sustainable. Incumbent elected politicians in several of our countries presumably benefited from the positive political pocket-book effect of consumers being able to use their houses as Automatic Teller Machines (ATMs) but they took a drubbing when the boom went bust. The magnitude of the contingent liability taken on by governments, as a result of the seemingly unrecognized concentration of risk in the financial sector leading up to 2008, is now evident.

The impact of market-based banking upon nonfinancial companies and households can be further considered. While equity issuance may expose NFCs to greater short-term pressure compared with traditional relationship-based bank borrowing, the new market-based credit financing potentially exposes NFCs to greater volatility than equity-based financing. This was evident in the credit crisis when

institutions that provided contracts amounting to insurance for bonds, such as interest rate swaps, defaulted, forcing issuers into short financial markets. Kroszner, Laeven, and Klingebiel (2007) show how credit-dependent sectors grow faster in normal times and are hit harder in tough times. From the household debt side of the financialization picture, the US appears fairly exceptional. Even if one puts the subprime mortgage boom aside, asset-backed credit creation temporarily forestalled the compression of middle class living standards in the US in a way that appears fairly unique compared to other advanced industrial economies with more robust social welfare programs and wage protection (Montgomerie 2009). Household debt ratios in France and Germany, for example, have increased much less than in the US or the UK and consumption relative to disposable income has declined (Stockhammer 2010).

### **Conclusion**

This article started off pointing to the inability of the sub-field of Comparative Political Economy to explain the differential impact of the financial crisis on advanced industrialized economies. We traced this inability back to the typologies with which CPE scholars have been working for the past thirty years based on the seminal work by Zysman. This special issue offers a complement to the traditional typology of financial systems by looking at the activities of banks. In particular we propose a market-based banking model as an analytical tool to explain change in national financial systems.

The importance of the focus of this special issue on banking lies in four areas. First, the variety of financial capitalism was Zysman's independent variable; the dependent variable was the ability of governments to carry out industrial policy. The

rise in market-based banking has implications for the ability of governments to intervene in the economy, as well as the perceived necessity of intervention in the recent financial crisis. Second, although ‘bank-based’ is not a term they use in their seminal chapter (Hall and Soskice 2001b), banks are central to Hall and Soskice’s (2001a) CME and LME. Third, our approach serves to highlight an underappreciated aspect of change within financial markets: the changing activities of the financial market actors themselves. While this has particular relevance within the varieties of financial capitalism literature, where change at the level of market actors has focused on NFCs, it has more general relevance to the study of finance, incorporating the level of detail most commonly found in the financialization literature. Last, the arguments have policy implications. Most obviously, this is policy in the light of the recent financial crisis, but it includes questioning the approach to banks implicit in a large body of work encapsulated in the title of one paper: ‘Bank-based or Market-based Financial Systems: Which is Better?’ (Levine 2002).

This special issue is an attempt to focus attention on banks, which have been little studied in CPE. In so doing we question the long-standing division between bank- and market-provided capital that has been central to analyses of varieties of financial capitalism since Zysman’s 1983 study. Our market-based banking framework offers an alternative analytical tool to apply to national financial capitalisms and can contribute to an understanding of change in national varieties of capitalism. Our application of market-based banking challenges claims of convergence in contemporary capitalism by demonstrating the non-static nature of the Anglo-Saxon model to which other varieties are seen as converging (if only in part). While we reject the notion of a teleological evolution toward a new hybrid-type system, we do see some commonalities in the new aspects of national financial

systems described in these papers. More and less evident across these cases, these commonalities surface in both types of countries, those that scholars have placed in the bank-based/CME or capital-market/LME category. Overall these new elements of national financial systems highlight a potentially profound shift that calls for reframing. Although it is not the focus of this special issue, our analysis of market-based banking could be combined with the two other forms of market-based corporate financing - bonds and equities – to give an overall assessment of the extent to which NFC financing and the financial system depends on market influences, and therefore the degree to which each national financial system is market-based.

Financial systems evolve and change: they do not necessarily conform to the stylized facts of any single type. The addition of market-based banking and the factors that it identifies helps us to depict financial institutions and analyze their evolution because they describe a way that financial intermediation can occur that has not been previously understood in CPE. Introducing a new model and looking for it across a variety of cases can help CPE scholars be more accurate in their depictions of finance and its implications for varieties of capitalism. An understanding and application of market-based banking can help scholars who want to understand the role of banks in political economy. This is what we understand to be a major contribution of this special issue to the literature on the political economy of finance. We are ‘bringing the bankers back in’.

## **References**

Allen, Franklin and Gale, Douglas. 2000. *Comparing Financial Systems*. Cambridge: The MIT Press.

Abdelal, Rawi. 2007. *Capital Rules: The Construction of Global Finance*. Cambridge MA: Harvard University Press.

Aglietta, Michel and Breton, Régis. 2001. 'Financial Systems, Corporate Control and Capital Accumulation.' *Economy and Society*, 30, 4: 433–66.

Aguilera, Ruth V. and Jackson, G.. 2003. 'The Cross-National Diversity of Corporate Governance: Dimensions and Determinants', *Academy of Management Review*, 28(3): 447-465.

Amable, Bruno. 2003. *The Diversity of Modern Capitalism*. Oxford: Oxford University Press.

Andrews, David M.. 1994. 'Capital Mobility and State Autonomy: Toward a Structural Theory of International Monetary Relations.' *International Studies Quarterly* 38 (June): 193- 218.

Bank of England. 2009. *Financial Stability Review*, London: Bank of England.

Barth, James R., Gerard Caprio Jr. and Ross Levine. 2006. *Rethinking Bank Regulation: Till Angels Govern*. Cambridge: Cambridge University Press.

Busch, Andreas. 2009. *Banking Regulation and Globalization*. Oxford: Oxford University Press.

Chandler, A.. 1990. *Scale and Scope: The Dynamics of Industrial Capitalism*. Cambridge, MA, Belknap Press.

Clift, Ben. 2007. 'French Corporate Governance in the New Global Economy: Mechanisms of Change and Hybridisation within Models of Capitalism.' *Political Studies*, 55, 3, (October): 546–567.

Crouch, Colin. 2005. *Capitalist Diversity and Change: Recombinant Governance and Institutional Entrepreneurs*. Oxford: Oxford University Press.

Corrigan, E. Gerald. 1982. 'Are Banks Special?' In The Federal Reserve Bank of Minneapolis, *Annual Report*.

Culpepper, Pepper D.. 2005. 'Institutional Change in Contemporary Capitalism: Coordinated Financial Systems since 1990.' *World Politics*, 57, 2, January: 173-199.

Davis, E. Philip. 1996. 'The Role of Institutional Investors in the Evolution of Financial Structure and Behaviour', RBA Annual Conference Volume, in: *The Future of the Financial System Reserve Bank of Australia*, ed., Malcom Edey, Canberra: RBA.

Davis, E. Philip and Benn Steil. 2001. *Institutional Investors*. Cambridge, MA MIT Press.

Deeg, Richard. 1999. *Finance capitalism unveiled: banks and the German political economy*. University of Michigan.

Deeg, Richard. 2005. 'The Comeback of Modell Deutschland? The New German Political Economy in the EU.' *German Politics*, 14 (September) No. 3:1-22.

Deeg, Richard. 2007. 'Complementarity and Institutional Change in Capitalist Systems.' *Journal of European Public Policy*, 14 (June) No. 4: 612-631.

Deeg, Richard. 2010. 'Institutional Change in Financial Systems.' In *The Oxford Handbook of Comparative Institutional Analysis*, eds. Morgan, Glenn, John L., Campbell, Colin, Crouch, Ove Kai, Pedersen, and Richard Whitley. Oxford: OUP, 312-351.

Dore, Ronald. 2008. 'Financialization of the global economy.' *Industrial and Corporate Change*, 17, 6: 1097-1112.

Engelen, Ewald. 2008. 'The Case for Financialization.' *Competition & Change*, 12, 2, (June): 111-119.

Ertürk, I. Froud, J. Johal, S. Leaver, A. Williams, K.. 2008. 'General Introduction: Financialization, Coupon pool and Conjecture.' In *Financialization at Work: Key Texts and Commentary*. New York: Routledge.

Erturk, I. and Solari, S.. 2007. 'Banks as Continuous Reinvention.' *New Political Economy* 12 (3): 369-388.

Evans, Peter. 1979. *Dependent Development: The Alliance of Multinational State, and Local Capital in Brazil*. Princeton: Princeton University Press.

Feeney, Paul W.. 1995. *Securitization: Refining the Bank*. New York: St. Martin's Press.

Frieden, Jeffrey A.. 1981. 'Third World indebted industrialization: international finance and state capitalism in Mexico, Brazil, Algeria, and South Korea.' *International Organization*, 35(3): 407-31, June.

Frank, André Gunder. 1967. *Capitalism and Underdevelopment in Latin America: Historical Studies in Chile and Brazil*. New York, Monthly Review Press.

Frank, André Gunder. 1978. *Dependent Accumulation and Underdevelopment*. London: Macmillan.

Froud, Julie, Adam Leaver, and Karel Williams. 2007. 'New Actors in a Financialised Economy and the Remaking of Capitalism.' *New Political Economy* 12 (3): 339-347.

Goldstein, Jonathan P.. 2009. 'Introduction: The Political Economy of Financialization.' *Review of Radical Political Economics*, December, 41: 453-457.

Goodman, J. B. and L.W. Pauly. 1993. 'The Obsolescence of Capital Controls? Economic Management in the Age of Global Markets.' *World Politics*, 46 (1): 50–82.

Goyer, M.. 2001. 'Corporate governance and the innovation system in France: 1985–2000.' *Industry and Innovation* 8(2): 135–158.

Gourevitch, Peter A. and James Shinn. 2005. *Political Power and Corporate Control: The New Global Politics of Corporate Governance*. Princeton, N.J.: Princeton University Press.

Guillén, Mauro F.. 2001. *The Limits of Convergence: Globalization & Organizational Change in Argentina, South Korea, and Spain*. Princeton: Princeton University Press

Hall, Peter A. and David Soskice eds. 2001a. *Varieties of Capitalism: The Institutional Foundations of Comparative Advantage*. Oxford: Oxford University Press.

Hall, Peter A. and David Soskice. 2001b): 'An Introduction to Varieties of Capitalism.' In *Varieties of Capitalism, The Institutional Foundations of Comparative Advantage*, eds. Peter A. Hall and David Soskice. Oxford, Oxford University Press, 1-70

Hall, Peter A. and David Soskice. 2003. 'Varieties of Capitalism and Institutional Change: A Response to Three Critics.' *Comparative European Politics* 1: 241-250.

Hall, Peter A. and Kathleen Thelen. 2009. 'Institutional change in varieties of capitalism.' *Socioeconomic Review* 7 (1): 7-34.

Hancké, Bob, Martin Rhodes, and Mark Thatcher (eds). 2007), *Beyond Varieties of Capitalism: Conflict, Contradictions, and Complementarities in the European Economy*. Oxford: Oxford University Press.

Hancké Bob and Michel Goyer. 2005. 'Degrees of freedom: Rethinking the institutional analysis for economic change.' In *Changing Capitalisms? Complementarities, Contradictions and Capability Development in an International Context*, eds. Glenn Morgan, Richard Whitley and Eli Moen. Oxford: Oxford University Press, 53-77.

Hackethal, A.. 2001. 'How Unique are US-Banks? The Role of Banks in Five Major Financial Systems.' *Journal of Economics and Statistics*, 221: 592-619.

Hardie, Iain and David Howarth. 2009. 'Die Krise but not La Crise? The Financial Crisis and the Transformation of German and French Banking Systems.' *Journal of Common Market Studies*. 47, 5: 1017–1039.

Hardie, Iain and David Howarth. date. This issue.

Helleiner, Eric. 1996. *States and the reemergence of global finance: from Bretton Woods to the 1990s*. Ithaca: Cornell University Press.

Hellmann, Thomas, Kevin Murdock and Joseph Stiglitz. 2000. 'Liberalization, Moral Hazard in Banking and Prudential Regulation: Are Capital Requirements enough?' *American Economic Review*, 90(1): 147-165.

Hicks, Alexander. 1988. 'Social Democratic Corporatism and Economic Growth.' *The Journal of Politics*, 50: 677-704.

Jackson, Gregory and Richard Deeg. 2008. 'How Many Varieties of Capitalism? From Institutional Diversity to the Politics of Change.' *Review of International Political Economy*. 15 (October) 4: 679-708.

Kamikawa, Ryunoshin. date. This issue.

Katz, Richard. 1998. *Japan, The System That Soured: The Rise and Fall of the Japanese Economic Miracle*. NY: M.E. Sharpe.

Kimakova, Alena. 2009. 'Government Size and Openness Revisited: The Case of Financial Globalization.' *Kyklos* 62, 3: 394-406.

Kogut, Bruce. 1991. 'Joint Ventures and the Options to Expand and Acquire.' *Management Science* 37, 1 (Jan.): 19-33.

Krippner, Greta R.. 2005. 'Financialisation and the American Economy', *Socio-Economic Review* 3 (2): 173-208.

Kroszner, Randall S., Luc Laeven, and Daniela Klingebiel. 2007. 'Banking Crises, Financial Dependence, and Growth', *Journal of Financial Economics* 84: 187-228.

Kurzer, Paulette. 1993. *Business and banking: political change and economic integration in Western Europe*. Ithaca: Cornell University Press.

Laeven, Luc, and Ross Levine. 2009. 'Bank governance, regulation and risk taking', *Journal of Financial Economics*, vol. 93(2): 259-275.

Leblond, Patrick. 2011. 'A Canadian Perspective on the EU's Financial Architecture and the Crisis', in Kurt Hübner (ed.) *Europe, Canada and the Comprehensive Economic Partnership*, London: Routledge: 165-179,

Levine, Ross. 2002. 'Bank-Based or Market-Based Financial Systems: Which Is Better?', *Journal of Financial Intermediation*, Vol. 11(4), October: 398-428.

Loriaux, Michael. 1991. *France After Hegemony: International Change and Financial Reform*. Ithaca, NY: Cornell University Press.

Maxfield, Sylvia. 1998. 'Understanding the Political Implications of Capital Flows to Developing Countries.' *World Development* 26 (July): 1201-20.

Montgomerie, Johnanna. 2009. 'A bail-out for working families?' *Renewal: A Journal of Social Democracy* 17, 3: 22-31.

Morin, François. 2000. 'A transformation in the French model of shareholding and management', *Economy and Society* 29(1): 36–53.

Mosley, Layna. 2003. *Global Capital and National Governments*, Cambridge: Cambridge University Press.

O'Sullivan, Mary. 2003. 'The Political Economy of Comparative Corporate Governance.' *Review of International Political Economy*, 10, 1, 23-72.

Pagano, Marco and Paolo F. Volpin. 2001. 'The Political Economy of Finance.' *Oxford Review of Economic Policy* 17(4): 502-519

Pauly, Louis. 1988. *Opening Financial Markets: Banking Politics on the Pacific Rim*. Ithaca: Cornell.

Pauly, Louis W.. 1995. 'Capital Autonomy, State Autonomy and Political Legitimacy.' *Journal of International Affairs* 48:2: 369-88.

Pepinsky, Thomas. 2011. 'Openness without Liberalization: Why Bankers in Developing Countries Support Financial Internationalization.' Working paper, Department of Government, Cornell.

Porter, Tony. 2010. 'Canadian banks in the financial and economic crisis.' Paper prepared for presentation at the Policy Responses to Unfettered Finance Workshop North-South Institute Ottawa, Canada, June 8-9.

Posner, Elliot. 2005. 'Sources of Institutional Change: The Supranational Origins of Europe's New Stock Markets.' *World Politics*, 58 (1): 1-40.

Posner, Elliot. 2009. *The Origins of Europe's New Stock Markets*, Cambridge MA: Harvard University Press.

Pozsar, Zoltan, Tobias Adrian, Adam Ashcraft, and Hayley Boesky. 2010. Shadow Banking. Federal Reserve Bank of New York Staff Report No. 458 (July).

Quaglia, Lucia. 2011. 'The politics of insurance regulation and supervision reform in the European Union.' *Comparative European Politics* (2011) 9: 100–122.

Quinn, Dennis P., and A. Maria Toyoda. 2007. 'Ideology and Voter Preferences As Determinants Of Financial Globalization.' *American Journal of Political Science*, 51: 344–363.

Rajan, Raghuram G., 1998), 'The Past and Future of Commercial Banking Viewed through an Incomplete Contract Lens.' *Journal of Money, Credit and Banking* 30(3), 524-50.

Rajan, Raghuram G and Zingales, Luigi. 2003. 'Banks and Markets: the Changing Character of European Finance.' CEPR Discussion Papers 3865.

Royo, Sebastian. date. This issue.

Stockhammer, Engelbert. 2010. 'Financialization and the Global Economy.' Working Papers wp240, Political Economy Research Institute, University of Massachusetts at Amherst.

Schmidt Vivien A.. 2002. *The Futures of European Capitalism*. Oxford: Oxford University Press.

Schmidt, Reinhardt H., Andreas Habethal and Marcel Tyrell. 2001. 'The Convergence of Financial Systems.' Working Paper Series: Finance & Accounting, Johann Wolfgang Goethe-Universität, Frankfurt Am Main, no. 75, May. <http://www.finance.uni-frankfurt.de/wp/425.pdf>.

Scruggs, Lyle and James P. Allan. 2008. 'Social Stratification and Welfare Regimes for the Twenty- First Century: Revisiting the *Three Worlds of Welfare Capitalism*.' *World Politics* 60,4: 641-664.

Strange, Susan. 1988. *States and Markets*. London: Continuum.

Strange, Susan. 1996. *The Retreat of the State. The Diffusion of Power in the World Economy*. Cambridge: Cambridge University Press.

Streeck, W.. 2004. 'Taking Uncertainty Seriously: Complementarity as a Moving Target.' *Workshop Proceedings of the Osterreichische Nationalbank*, 1: 101-115.

Stopford, John, Susan Strange with John S. Henley. 1991. *Rival States, Rival Firms. Competition for World Market Shares*. Cambridge: Cambridge University Press.

Underhill, Geoffrey, Jasper Blom and Daniel Mügge eds. 2010. *Global Financial Integration Thirty Years On: From Reform to Crisis*. Cambridge: Cambridge University Press.

Useem, Michael. 1996. *How Money Managers are Changing the Face of Corporate America*, New York: Basic Books.

Verdun, Amy. 2000. *European Responses to Globalization and Financial Market Integration: Perceptions of Economic and Monetary Union in Britain, France and Germany*. Houndmills: Palgrave Macmillan.

Webb, Michael C.. 1995. *The Political Economy of Policy Coordination: International Adjustment Since 1945*, Ithaca, N.Y.: Cornell University Press.

Whitley, Richard. 1992. *Business Systems in East Asia: Firms, Markets, and Societies*. London: Sage.

Whitley, Richard. 1999. *Divergent Capitalisms: The Social Structuring and Change of Business Systems*. Oxford: Oxford University Press.

Wood, Geoffrey and Jędrzej George Frynas. 2006. 'The institutional basis of economic failure: anatomy of the segmented business system.' *Socio-Economic Review*, 4 (2): 239-277.

Zysman, John. 1983. *Government, Markets and Growth: Financial Systems and the Politics of Industrial Change*. Ithaca: Cornell University Press.

**Table 1 Nonfinancial company finance**

Nonfinancial company finance (bank loans, securities, equities) as a % of total Lending / Securities / Equity, 2000 to 2007 (% increase / decrease, end of year)

|             | Lending Increase % | Securities Increase % | Equity Increase % |
|-------------|--------------------|-----------------------|-------------------|
| Belgium     | 20.7               | 25                    | 32                |
| France      | 45.6               | 18                    | 21.5              |
| Germany     | 5.2                | 123                   | 17.9              |
| Greece      | 63.1               | 325                   | 29.6              |
| Italy       | 62.8               | 190                   | -12.8             |
| Japan       | -28                | 2.5                   | 21                |
| Netherlands | 45                 | 6.3                   | 3.5               |
| Spain       | 42.3               | -2.2                  | 201.6             |
| UK          | 74.9               | 40.3                  | N/A               |
| US          | 51                 | 59.6                  | 24                |

Sources: See figure 1

**Table 2 National financial systems**

Bank assets, Private debt market, Equity market capitalisation to GDP, 2000-2007, percentage increase.

|                    | Bank assets increase | Private bond market increase | Equity market capitalisation increase |
|--------------------|----------------------|------------------------------|---------------------------------------|
| <b>Belgium</b>     | 39.1                 | -29                          | 10.4                                  |
| <b>France</b>      | 43.2                 | 23.7                         | -7.7                                  |
| <b>Germany</b>     | 4.5                  | -43.9                        | -20.5                                 |
| <b>Greece</b>      | 2.7                  | 3400                         | -40.2                                 |
| <b>Italy</b>       | 17.3                 | 68.6                         | -26.8                                 |
| <b>Japan</b>       | 10.3                 | -18.7                        | 27                                    |
| <b>Netherlands</b> | 48                   | 57.4                         | -33.7                                 |
| <b>Spain</b>       | 52.1                 | 295.9                        | 35.6                                  |
| <b>UK</b>          | 49.2                 | 19.4                         | -26.5                                 |
| <b>US</b>          | ??                   | 23.3                         | -12.2                                 |

Sources: see figure 2

**Table 3 Capital and Bank regulation, write-downs and public support (2007-10)**

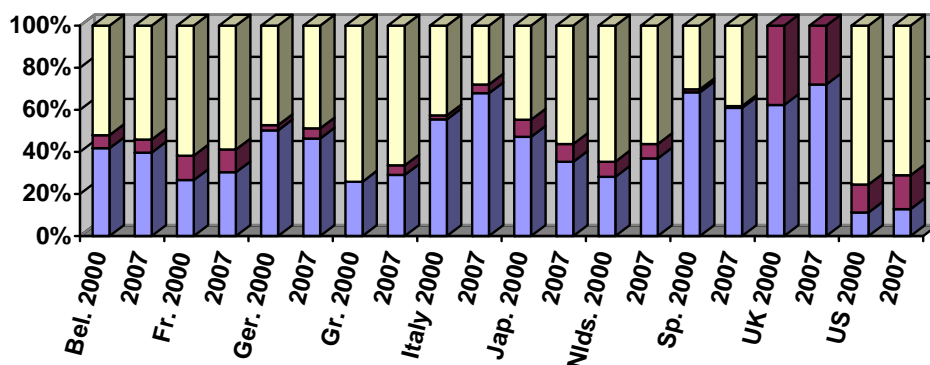
|  | <b>Belgium</b>    | <b>France</b>            | <b>Germany</b> | <b>Greece</b>      | <b>Italy</b>       | <b>Japan</b>            | <b>Net<br/>herlands</b> | <b>Spain</b> | <b>UK</b> | <b>US</b> |
|--|-------------------|--------------------------|----------------|--------------------|--------------------|-------------------------|-------------------------|--------------|-----------|-----------|
| <b>Capital stringency*</b>                                       | NA                | 2                        | 1              | 3                  | 4                  | 4                       | 3                       | 4            | NA        | 4         |
| <b>Restrict**</b>  | NA                | 6                        | 5              | 9                  | 10                 | 13                      | 6                       | 7            | NA        | 12        |
| <b>Securities Write downs as a % total bank assets (2007)</b>    | 0.44 (08-09 only) | 0.38 (7.07 to 4.10 only) | 2              | 0.012 (07-09 only) | .086% (07-09 only) | .22%, (April 2009 est.) | 1.8                     | 0.17         | 0.52      | 2.6       |
| <b>Public funds drawn upon by banks (% 2007 GDP) by end 2009</b> | 6                 | 1.1                      | 4.9            | 0                  | 0.3                | 0.2                     | 2.5                     | 1.1          | 6.5       | 4.8       |

Sources: Barth et al., 2006 for the figures on capital stringency and banking restrictions. National Central Banks, 'Financial Stability Report' and IMF 'Global Financial Stability Report, April / October 2010 for figures on securities write-downs and public funds drawn.

\*Capital stringency is an index of regulatory oversight of bank capital. This index is based on the following questions: is the minimum capital asset ratio requirement risk weighted in line with the Basel guidelines? Does the minimum ratio vary as a function of market risk? Are market values of loan losses not realized in accounting books deducted from capital? Are unrealized losses in securities portfolios deducted? Are unrealized foreign exchange losses deducted? What fraction of revaluation gains is allowed as part of capital? Are the sources of funds to be used as capital verified by the regulatory or supervisory authorities? Can the initial disbursement or subsequent injections of capital be done with assets other than cash or government securities? Can initial disbursement of capital be done with borrowed funds? Thus, capital stringency does not measure statutory capital requirements. Instead, it measures the regulatory approach to assessing and verifying the degree of capital at risk in a bank' (Laeven and Levine 2009: 263).

\*\*Restrict is an index of regulatory restrictions on the activities of banks. 'This index measures regulatory impediments to banks engaging in securities market activities (e.g., underwriting, brokering, dealing, and all aspects of the mutual fund industry), insurance activities (e.g., insurance underwriting and selling), real estate activities (e.g., real estate investment, development, and management), and the ownership of nonfinancial firms' (ibid.: 263).

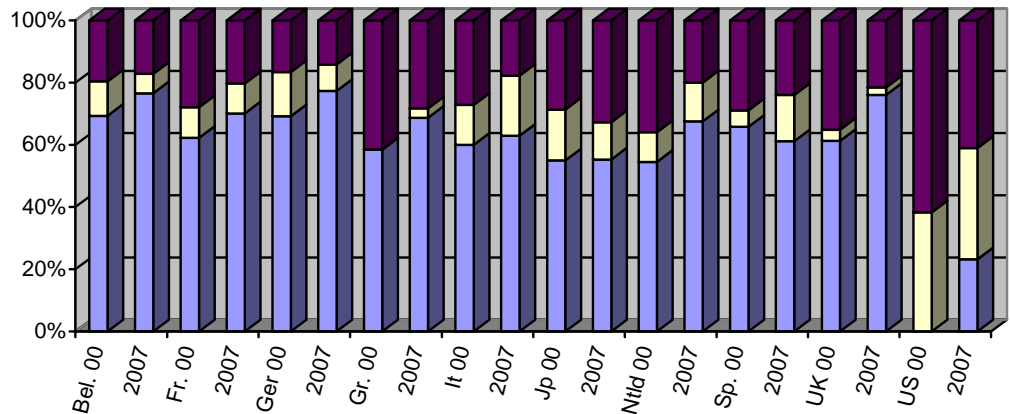
**Figure 1 Nonfinancial company finance (bank loans, securities, equities) as a % of total (2000 and 2007)**



Sources: EU member state figures are drawn from the ECB statistics data warehouse except where noted, accessed 22.11.2010; Federal Reserve Flow of Funds, December 2010 and December 2004 releases; Ministry of Internal Affairs and Communications, Statistical Research and Training Institute ed. (2001, 2008), *Japan Statistical Yearbook*, Ministry of Internal Affairs and Communications, Statistics Bureau; Bank of Japan. Banque de France figures. Banque de France, Endettement des entreprises, <http://www.banque-france.fr/fr/statistiques/titres/titres-endettement-snf.htm>, accessed 22.1.2011. Bundesbank figures. Non-financial corporations / stocks / liabilities. [http://www.bundesbank.de/statistik/statistik\\_zeitreihen.en.php?lang=en&open=&func=list&tr=www\\_v39\\_nuverb](http://www.bundesbank.de/statistik/statistik_zeitreihen.en.php?lang=en&open=&func=list&tr=www_v39_nuverb); accessed 2.12.2010. Japan (Bank of Japan) figures are for the end of the fiscal year (thus end-March). Banco de Espana figures. See <http://www.bde.es/webbde/es/estadis/ccff/0203.pdf>, accessed 12.1.2011. De Nederlandsche Bank, Security issues, Issues of securities other than shares by Dutch residents, <http://www.statistics.dnb.nl/index.cgi?lang=uk&todo=Emissie>, accessed 12.10.2010. US lending figures include bank loans, loans from other financial institutions and corporate mortgages with corresponding amounts as follows: (for 2000) 861, 651, 370; (for 2007) 609, 1350, 882. Source: Federal Reserve Flow of Funds, December 2010 and December 2004 releases. The Bank of England / Treasury does not collect data on outstanding equity issued (only new equity issues and growth). The figures for the UK thus only demonstrate the growth of bank lending in relation to securities.

**Figure 2 National financial systems (2000 and 2007)**

Bank assets, Private debt market, Equity market capitalisation as a percentage of total financial system assets.



Sources: For bank (credit institution) assets see ECB 2004 and 2008, Bank of Japan (\*March 2001 bank asset figures provided, excluding Shinkin-bank and credit unions.) and US Federal Reserve. US bank asset figures cover only the commercial banks. For Private bond market and equity market capitalisation see Thortsen Beck and Asli Demirgüç-Kunt, "Financial Institutions and Markets Across Countries and over Time: Data and Analysis", *World Bank Policy Research Working Paper No. 4943*, May 2009. For Equity market capitalisation see also World bank data bank: <http://databank.worldbank.org/ddp/home.do?Step=3&id=4>