Who's Borrowing?
Credit Encouragement vs. Credit Mitigation in National Financial Systems

Gregory W. Fuller
American University
School of International Service

Abstract
Households and banks have increasingly displaced non-financial businesses and governments as the primary debtors in modern capitalist economies, resulting in more severe economic cycles, increased inequality, and external macroeconomic imbalances. Yet while the trend is nearly universal among developed economies, its intensity varies a great deal from country to country. This paper highlights (1) the common international causes behind the global expansion of household and financial sector debt; (2) the divergent national approaches to household credit that cause household and financial sector indebtedness to vary from country to country; and (3) the likely causes of these disparate approaches. It finds that national approaches to interest rate restrictions, property transfer taxation, high loan-to-value (LTV) mortgages, mortgage interest taxation, and secondary markets for consumer debt can either encourage or mitigate household and financial sector borrowing. Whether a country encourages or mitigates such credit is determined by an idiosyncratic mix of institutional, political, and ideational factors. Especially important are the size of domestic pension funds, banks' preferred business models, the political power of financial firms, and whether policymakers are more sensitive to the gains promised by a credit-fueled expansion or to the risks posed by an overleveraged collapse.

Keywords
credit, household finance, financialization, inequality, securitization, liberalization

Corresponding Author
Gregory Fuller, American University School of International Service, 4400 Massachusetts Ave. NW Washington, DC 20016
Email: fuller@american.edu

Households and banks have increasingly displaced non-financial businesses and governments as the primary debtors in modern capitalist economies. Yet while the trend is nearly universal among developed economies, its intensity varies a great deal from country to country. Some states cling to traditional allocations of capital characterized by relatively constant non-financial sector borrowing and little expansion of household and financial sector debt; others have encouraged an ever-growing share of capital to flow towards households and banks. This phenomenon presents three important questions: How do we explain such a shift in how capital is deployed? Why do some countries seem to resist it more than others? And does such a transformation matter?

Since a "yes" answer to this last question should be required to justify a new article on the subject, I will address it first. Both the international and comparative strains of political economy are coming to realize that household financial activity has been a major omitted variable in studying socio-economic outcomes.[1] First, as Atif Mian and Amir Sufi have recently illustrated, [2] household debt buildups tend to precede sharper recessions. In downturns, highly leveraged households find themselves unable to borrow and are forced to save in order to pay down existing debt – even as the equity in their homes is wiped out. The result is a sharp reduction in consumption where debt burdens are highest. While Mian and Sufi's *House of Debt* has drawn a great deal of attention to this phenomenon, theirs is not an entirely new finding. Two decades ago, Mervyn King [3] found that countries with larger household debt burdens also tended to experience worse downturns during the early 1990s recessions.

Yet there is a flip-side to this undesirable connection between household debt and recessions. During periods of economic expansion, household borrowing encourages consumption and property appreciation. This generates economic growth and higher levels of employment. Herman Schwartz, investigating wealthy countries during the early 2000s, found this growth-accelerating effect to be most pronounced in the United States and in countries with housing markets similar to the Americans'. [4] A simple comparison of household borrowing and consumption pre-2007 compared to consumption post-2007 bears out the same logic: household borrowing was associated with faster consumption growth before the crisis (see figure three). In short, the relationship between household debt and economic performance is highly pro-cyclical: household debt makes both booms and busts more pronounced.

Second, household and financial sector borrowing are both associated with heightened levels of inequality. Gunnar Trumbull,[5] as well as Schwartz and Leonard Seabrooke,[6] have argued that funneling more credit into housing finance primarily benefits the already-wealthy. These "incumbents"– by virtue of already owning substantial amounts of wealth -- can take fuller advantage of the capital gains on offer from rising values prices. The same is true of financial products such as stocks and bonds, which make up a larger portion of wealthy individuals and firms' portfolios. These products include the financial claims generated by household lending (i.e., a mortgage) – which are effectively senior claims on the equity in a home. Mian and Sufi have noted that, in an economic downturn, collapsing home values tend wipe out the wealth of (typically poorer) homeowners before the affecting the (typically wealthy) creditors.[7] Thus, in both debt-fueled boom and post-debt bust, it is the relatively poor that lose.

Moreover, a booming financial sector may intrinsically lead to heightened inequality due to the outsized salaries in that sector: increases in financial sector wages

do tend to outstrip wage gains in society as a whole.[8] In Canada, Australia, the United States, the United Kingdom, and the Netherlands – all countries with relatively large financial sectors – the compensation of financial sector workers rose from roughly 50 percent above the average wage in the mid-1990s to nearly double at the height of the 2000s boom.[9] The causal link between household and financial sector indebtedness and inequality also operates in the reverse direction: Raghuram Rajan[10] and Greta Krippner[11] have both noted that the liberalization of household finance has been seen as a way for families to maintain their living standards amidst an environment of relative wage stagnation.

Finally, there is a natural complementarity between household indebtedness and importing. Households use revolving credit and tools like home equity withdrawals to consume and ultimately to import.[12] At the same time, the borrowing transaction itself produces another sort of "good:" a financial assets. That asset can be exported abroad, facilitating the financial account surplus required to support a current account deficit. The result is that household borrowing activity tends to be associated with negative current account balances (from importing) and positive financial account balances (from exporting financial products). By the same token, countries where relatively little household borrowing takes place tend to import less and have greater savings to send abroad – leading to the reverse balance of payments position of current account surplus and financial account deficit.

In sum, determining why some countries have tended to see larger accumulations of household and financial sector debt is important. In making this assessment, however, there remain significant gaps in our knowledge. Despite evident demand for further study in this direction,[13] there are few holistic explanations for (1) the global trend toward heightened household and financial sector borrowing and (2) the disparate intensities of that trend when comparing one country to another. The tendency in many existing analyses – including *House of Debt* – is to blame household debt levels on residential property bubbles and a surge in credit availability caused, in large part, by the popularization of securitized financial products. This is not wrong; however, it profoundly understates the impact of nationally divergent attitudes and policies on credit formation – particularly with regard to lending restrictions, mortgage subsidies, and the tolerance of higher debt burdens.

Schwartz has arguably come closest to offering a more holistic comparative assessment, dividing advanced economies into those that possess USA-like housing systems (featuring securitized lending, low transaction costs, and high levels of mortgage debt and homeownership) and those that do not.[14] This is useful but overly homogenizes the two ideal types. It overlooks the fact that national policies can be contradictory: for instance, one system may offer generous deductions on mortgage interest to incentivize home ownership while also penalizing citizens for quickly buying and selling their homes to realize a capital gain. There is also a limitation that comes with using owner-occupation rates, residential construction, housing prices, and mortgage debt levels to classify economies: those variables will reflect deeper traits of domestic credit system. That is, there are more fundamental drivers of divergent construction activities, homeownership, and ultimately borrowing. This paper is partly an effort at identifying those drivers.

The second problem with the existing literature is its tendency to consider household debt as independent from financial sector debt. Examining household debt alone significantly understates the impact that household credit has on capital allocation as a whole. When a household receives a mortgage from a bank, it creates an asset that a bank can then sell. But that one transaction for the household could then feed a number of financial sector transactions. In the labyrinth of contemporary financial markets, a bank could borrow from another bank to create a mortgage, chop up that mortgage into a structured financial product and sell it to an off-balance-sheet vehicle, insure the resulting product through a credit derivative, chop that financial derivative into a new structured product, and sell it to another bank – which could purchase it with its own borrowed funds. This process may be confusing but the end result is simple: many layers of financial sector debt – both on and off balance sheets – can be underpinned by a single household transaction. Thus, in explaining the variation in the amount of capital flowing to households, we can also explain a portion of the variation in the amount of capital flowing to financial institutions – specifically, the portion attributed to household activities. Both are required in order to fully assess the economic impact of household financial activities.

This paper aims to fill these gaps in the discussion of the importance of household debt, providing both an international narrative outlining the causes of the global expansion in household and financial sector borrowing and a comparative explanation for how and why capital is reallocated far more in some countries than others. The argument is organized into four sections:

The first section establishes that there has indeed been a near-universal change in how capital is allocated across developed economies. Even so, the degree of capital reallocation taking place differs sharply from one country to another. Moreover, these disparate outcomes are not easily explained by existing classifications of capitalist systems. The second section of the paper presents a simple account of why household and financial sector borrowing has increased, arguing that the liberalization forced financial institutions to adapt in ways that funneled additional credit to households and banks.

The third section addresses why household and financial sector borrowing differs across countries, focusing on divergent approaches to interest rate restrictions, property transfer taxation, high loan-to-value (LTV) mortgages, the tax treatment of mortgage interest, and the size of secondary markets for consumer debt. When considered together, these measures explain a great deal of the cross-national variation in household borrowing activities. Moreover, due to the interdependence of banks' and households' balance sheets, these measures are also closely linked to financial sector debt. The fourth section of the paper concludes by presenting the most plausible political, institutional, and ideational explanations for why countries choose to either encourage or mitigate credit formation – and speculates on future research in this direction.

A Puzzling Transformation of Capital Allocation

When Joseph Schumpeter[15] first suggested that financial markets played a crucial role in stoking growth, he argued that it was non-financial businesses – from entrepreneurs to large corporations – which converted financial resources into real economic output. By

borrowing, these actors could afford to develop new products using different combinations of inputs, creating new and better products in more efficient ways. Borrowing for any other purpose was, to his mind, non-essential. Although his *Theory of Economic Development* was published in the early twentieth century, this account of an investment-driven "finance-growth nexus" remains at the core of the contemporary argument that financial development leads to wider economic development.[16]

The Schumpeterian vision of a finance-growth nexus suggests that *who* receives capital is of the utmost importance: recipients of financial resources are responsible making tomorrow's economy more active and productive than today's through shrewd investment. Traditionally, these investors have been large non-financial corporations. A case could also be made that government borrowing is similarly productive when used to invest in infrastructure. From this perspective, there is relatively little to gain from household or financial sector borrowing. Households typically incur debts to either consume or purchase non-producing assets; the financial sector's role is only as a facilitator of borrowing by society's ultimate investors.

Breaking down borrowing by sector in this way – looking at debt accrued by non-financial businesses and governments in relation to households and the financial sector – reveals a puzzle. The sectoral allocation of credit have changed dramatically over the past several decades: a growing share of society's borrowing is done by consumers and financial corporations. At the same time, the share of debt accounted for by governments and private non-financial enterprises has shrunk.

Figure one neatly illustrates this trend, illustrating the average share of capital allocated to the financial and household sector for 22 OECD economies.[17] It reveals that household and financial sector debt accounted for roughly half of all liabilities during the late-1990s but nearly 60 percent of borrowing by the end of the decade. Although the global recession following the global financial crisis of 2007-08 has caused this upward trend to stall, it has not been reversed. A more pronounced pattern is in evidence when looking at countries that report data going further back in time: in 1970, the share of liabilities accounted for by the US and Canadian household sectors was between 44 and 45 percent; by 2007 that figure had climbed to between 59 and 60 percent.[18]

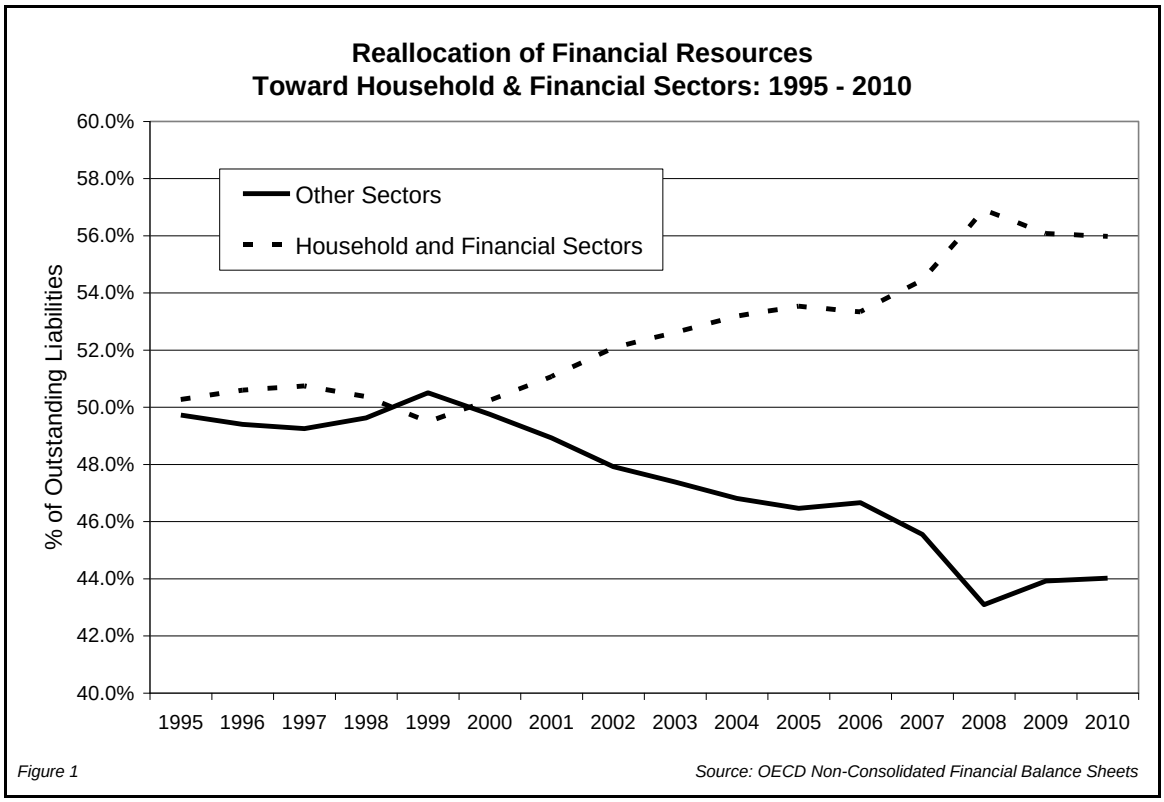
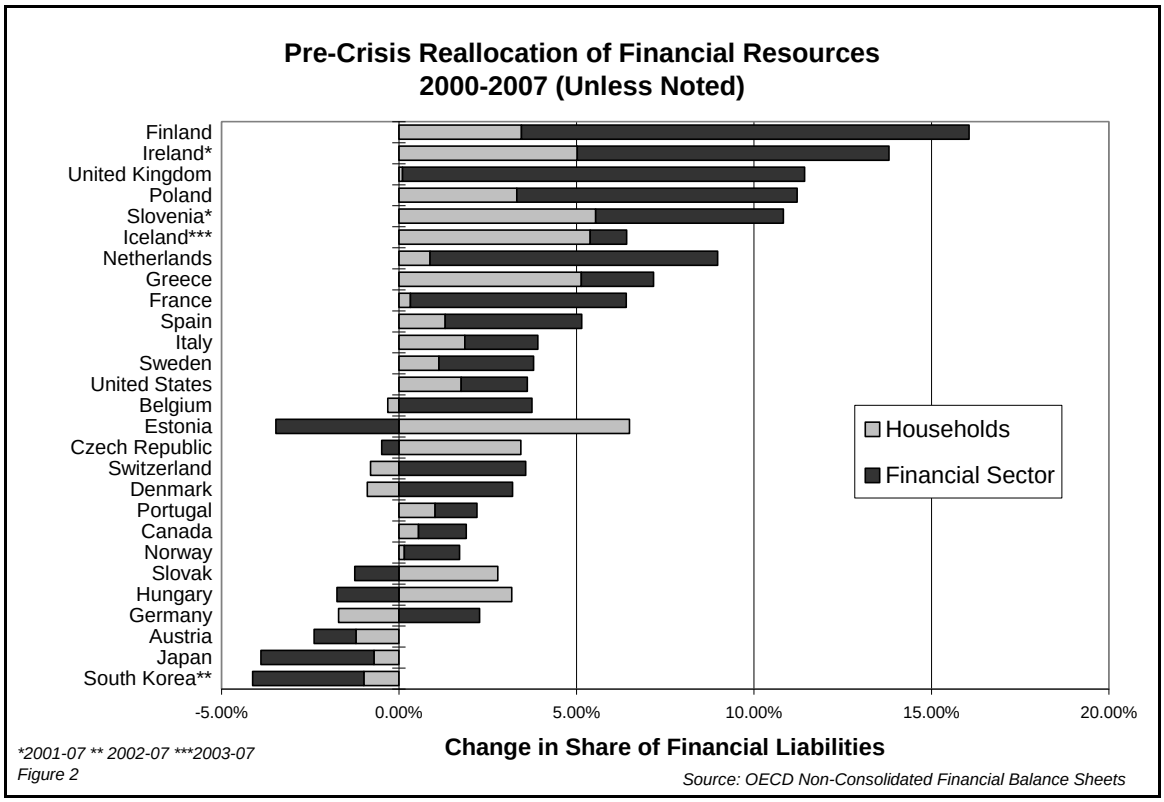


Figure 1 *Source: OECD Non-Consolidated Financial Balance Sheets*

Despite this trend, there is a great deal of variation in how that capital is allocated across countries. As figure two shows, the relative increase of household and financial sector borrowing can look very different in different places. In most wealthy countries, the share of debt accounted for by both the household and financial sectors increased. In all but a few countries, there was an overall shift away from borrowing by the non-financial and government sectors. Yet there is a great deal of heterogeneity in the amount of reallocation displayed.

What is intriguing about these allocative outcomes is that they are inconsistent with most categorizations of advanced economies. Neither the varieties of capitalism as described by Peter Hall and David Soskice[19] nor the distinction between bank-based and capital market based financial systems employed by John Zysman[20] seem to explain much. While countries typically classified as liberal market economies (i.e., the United States), do tend to see relatively high levels of debt and debt growth, they are outpaced by some ostensibly coordinated economies (i.e., the Netherlands). Similarly, bank-based financial systems exhibit both high and low levels of debt and debt increases. Schwartz and Seabrooke[21] have developed an interesting typology of residential capitalisms building on the "varieties" tradition. However, their categorizations – based on mortgage debt and owner-occupation rates – are inconsistent both the levels or growth rates of household and financial sector debt.



There may be value to an approach from scholars trying to marry the varieties of capitalism to the more eclectic "financialization" literature by classifying countries on both a "varieties" axis and a financialization axis.[22] However, as has been noted by prominent financialization scholars, it is hard to get a firm grip on what financialization is – let alone how to operationalize it.[23] Moreover, refining Hall and Soskice's approach in this way does not obviate the problems associated with using such static and often-criticized ideal-types.[24]

So the cross-national variation in these actors' borrowing remains puzzling. Solving that puzzle requires both an international political economy story about financial liberalization and a comparative political economy story about variations across countries. The next two sections of this paper address these two tasks in turn.

Liberalization, Adaptation, and Debt Growth

Since the end of the 1970s, developed countries have significantly liberalized their financial market policies by permitting international capital flows, loosening chartering restrictions on bank activities, and eliminating quantitative controls on credit growth. While the story of liberalization varies from country to country, the notion that these changes began at the end of the 1970s and intensified through the late-1990s is a stylized fact in much of the relevant literature.[25]

Prior to liberalization, national financial systems were highly regulated and generally subject to little competition, even being described as "repression" by contemporary critics of Bretton Woods-era financial rules.[26] While chartering restrictions constrained financial firms by limiting the activities they could engage in, those same

rules tended to produce protective niches for different types of businesses. It was not uncommon for one type of institution to have a near-monopoly on mortgage lending, another to essentially control non-mortgage consumer credit, another to engage in banking for corporations, and still others to provide corporate advice, act as stockbrokers, or make markets. Among the best-known and longest-lasting of these restrictions was the US' Glass-Steagall legislation, which erected barriers between commercial and investment banking. Such distinctions were internationally widespread and often more specific in many advanced economies. Moreover, many states limited the quantity of credit which could be extended by the financial sector as a whole, some governments (most notably in France) wielded power over where credit was allocated, and interest rates were commonly fixed – either by state rules (such as Regulation Q in the United States) or through state-sanctioned cartels (as with Britain's Building Societies Association).

The liberalization of international capital flows was arguably the most significant step in the process of financial liberalization. Once some states had allowed finance to flow across borders, the opportunity cost of maintaining barriers such as capital controls quickly grew.[27] Allowing international capital movement tended to force reforms of quantitative and qualitative credit guidelines. It was difficult, for instance, to maintain control over the overall amount of credit once banks could easily move money in and out of a national financial system.[28] Likewise, chartering restrictions were rendered obsolete when an activity barred in one jurisdiction could be carried out in another.

The internationalization of financial markets, the resulting dismantling of domestic regulations, and the wider effect that liberalization had on financial firms' competitive environments is crucial to understanding why household and financial sector debt has grown so sharply. Removing barriers to international capital flows intensified international competition between financial corporations. The dismantling of chartering restrictions enhanced domestic competition at the same time. This increasingly competitive environment forced financial firms to adapt – by consolidating, expanding, and innovating.

Adaptation and Debt Growth

The end of chartering restrictions meant that the activities of many small firms could be consolidated under a single roof. This led to mergers and acquisitions as financial firms organized themselves into larger universal banking institutions, improving economies of scope and scale and arguably increasing profitability.[29] The elimination of quantitative credit ceilings also allowed all financial institutions to expand their balance sheets, often by lending in new markets. This was a logical competitive measure for financial firms: financial operations can be scaled up in such a way without significant increases in overhead. By simply increasing its liabilities, a fund managing only a few million dollars in assets could relatively easily be turned into a fund managing a few hundred million dollars. This meant greater financial sector debt but it also increased the credit available to all borrowers, including the household sector.

There are two reasons to believe that liberalization had a special impact on lending to consumers. First, specialized consumer lenders were incorporated into the

larger banking groups. A prominent example was BNP's 1998 absorption of Cetelem, one of the largest providers of consumer finance in Continental Europe. In these mergers, banks acquired the specialized know-how of consumer lending operations. This enabled them to access a market which had previously been either too small-bore, too expensive, or legally impossible for them to engage with. The consumer lenders, for their part, gained the financial resources of their larger corporate parents.

Second, increased competition in the consumer lending business allowed consumers greater access to financial markets than they had previously enjoyed. This was especially true in places like Britain, where mortgages had been the domain of specialized bank-like entities known as building societies. Removing fetters on commercial banks' involvement in mortgage-lending took a market that had once been the preserve of relatively small community-based societies and opened it to injections of capital from banks such as Barclay's and Lloyd's. Building societies responded exercising their newly acquired right to borrow from wholesale credit markets in order to expand. The result, repeated across developed countries as liberalization progressed, was an increase in the lending capacity of financial institutions, expanding the pool of loanable funds available for households to borrow from.

The mid-1990s saw the widespread embrace of an even more important profit-seeking strategy on the part of financial firms: innovation – particularly through securitization and the advent of certain derivative products. Securitization allows for greater leverage because of its ostensible risk-reducing properties and the way it allows lenders to move assets off their balance sheets. A mortgage-backed security (MBS) involves a bank selling mortgages to a separate off-balance-sheet entity known as a Special Purpose Vehicle (SPV). The SPV then collects payments on the mortgages and sells those payment streams to investors. The asset produced through this process of repackaging loans and passing on interest payments is an MBS. Because repayment streams are comprised of payments on thousands of individual mortgages, securitization reduces the exposure of the MBS-holder to default on one individual mortgage. For example, a single default on an unsecuritized loan wipes out the value of the asset entirely; a single default on an asset comprised of payments on 1000 loans wipes out only a tiny proportion of the asset's value. By simply moving mortgages to an SPV (which did not face the same stringent capital requirements as banks) and then moving the resulting MBSs back on to the banks' balance sheets, banks could make the same amount of loans without holding the same amount of regulatory capital. That is, holding 1000 unrated loans required banks to hold more capital than the exact same 1000 loans packaged together as securitized assets.[30]

Securitization also enhanced financial firms' fundraising capacities. Because securitized assets promised attractive payment streams without the risks associated with individual mortgages, they were easily sold on secondary markets. Many MBS buyers came from outside the traditional mortgage market, including pension funds, insurance companies, and central banks. Moreover, SPV's could sell asset-backed commercial paper (ABCP) – essentially short-term bonds – to raise funds for the purchase of mortgages from originating institutions. Either mechanism allowed mortgage lenders to raise the funds needed to create mortgages from a growing and increasingly diverse pool of investors. For many firms, this reduced fundraising costs because they could borrow

based on the credit rating their securitized assets would fetch on the open market – not on their own institutional credit rating. [31]

The benefits of securitization were further enhanced by derivative innovations – the collateralized debt obligation (CDO) and credit default swap (CDS). CDOs were essentially MBS products "squared:" SPVs could pool MBSs (rather than mortgages) and then pass payments on to buyers of CDOs. The extra benefit of CDOs is that they were often "tranched" – or divided into senior and junior claims on payment streams. CDS contracts heightened the appeal of all securitized assets by allowing any large investor to essentially buy insurance on the default of their securitized products. Both CDOs and CDSs served to entice the wider world of major financial investors to become indirectly involved in the mortgage business.

Securitization, MBSs, CDOs, and CDSs consequently served to directly enhance the amount of borrowing by both the household and financial sector. Each of these innovations allowed the financial sector to access types of savings which would otherwise have been unavailable to them. For example, a sovereign wealth fund would have typically looked to sovereign bonds for an AAA-rated investment. Securitization, by enhancing the credit ratings and marketability of consumer debt, allowed mortgage lenders to directly tap such sources of funding. Moreover, the proliferation of new products rewarded financial firms with new fees they could charge for packaging and passing on income streams. Once banks' and other financial firms' access to capital and revenue-generating capacity was improved, they could expand their balance sheets even further.

The appearance of marketable assets underpinned by consumer borrowing was a boon to households: in order to create a securitized asset in the first place, new debtors must be found. That is, someone has to borrow in order to provide the payment streams that the financial sector found it so lucrative to sell. That "someone" was predominantly the household sector. At the height of the international boom in securitized assets in 2007, 73 percent of new securitized products in the US were based on residential mortgages or home equity loans. Much of the rest was based on credit cards (3.3 percent), auto loans (2.6 percent), and student loans (2 percent), with commercial mortgages accounting for 17.6 percent of the total. This all facilitated an asset-backed commercial paper market worth, at its peak, over 1.1 trillion dollars.[32] In short, securitization facilitated a massive expansion of financial sector debt based largely on new lending to households.

Divergent National Approaches to Credit

Even as liberalization weakened states' control over cross-border financial institutions, governments retained power over how most resident households interact with financial markets. Internationalization, after all, affects different sectors differently.[33] While a government might struggle to tell an internationalized bank that it cannot trade in sub-prime mortgage-backed securities, it can relatively easily bar low-income households from obtaining a sub-prime mortgage in the first place. In addition to such formal policies, national institutional structures and ideational tendencies can also be either well- or ill-suited to a robust consumer credit market. Put differently, national features

governing households' financial activities tend to either encourage or mitigate the formation of household and financial sector debt.

I identify five such national characteristics of chief importance. These are: (1) interest rate restrictions on household borrowing; (2) capital gains rules on the transfer of households' assets; (3) a society's comfort or institutional capacity to accept high debt loads, as indicated by the ratio of typical mortgage loans to the value of the property purchased; (4) mortgage subsidies; and (5) the size of a secondary market for household debt. These characteristics place a heavy emphasis on mortgages and the market for residential real estate because residential mortgages are the most important form of consumer debt. In the majority of advanced economies, long-term loans account for more than 80 percent of all household liabilities.[34]

Through the mortgage market, national approaches to household credit formation should have a pass-through effect on financial institutions – an effect which should be evident, but likely weaker than what is observed for households. This is because banks can more easily engage in activities across borders, rendering local rules less salient. Moreover, we cannot explain divergence in financial institutions' behaviors that arise from their relationships with sectors that are not part of this analysis, namely the government and non-financial corporations.

Credit Encouragement Versus Credit Mitigation

The first national characteristic to be examined is statutory limits on interest rates. These rules – sometimes referred to as restrictions on "usury" – control what lenders are permitted to charge borrowers for borrowed funds. Where rules are present, they generally emerged out of an explicit desire on policymakers' part to protect consumers from lenders who saw that relationship as potentially exploitive.[35] Creditors, they posit, could exploit the relative vulnerability of debtors to charge an unreasonable rate of interest. Hence, a large number of restrictions are based on either criminal law – in many cases, from statutes dating back a century or more – or civil rules intended to protect consumers' rights. Since the crisis, the debate over interest rate restrictions has broadened to include discussions of macroeconomic stability.[36]

In a few cases, interest rates are capped at explicit levels determined by the state. A prominent example of this is Japan's Moneylenders' Law of 2006, which set 20 percent as the maximum rate chargeable for consumer credit. Most countries that limit interest rates, however, impose relative ceilings. France, which has arguably the strictest usury laws in the OECD, has long operated such a system. French lenders are forbidden from charging more than 133% of the average interest rate for any type of credit. For instance, when the average fixed-rate mortgage was offered at 3.89 percent in the first quarter of 2014, lenders could charge no more than 5.19 percent.[37] The average reference figures are updated on a quarterly basis by the Bank of France.

The scope of these restrictions varies a great deal by country. In France, essentially all lending is covered. In the United Kingdom and Ireland, by comparison, ceilings affect a very small amount of lending – usually loans offered by credit unions. In many countries, the only restrictions are on either overdraft facilities, revolving credit, or smaller short-term "payday"-style loans, and are intended to crack down on loan

sharking. The efficacy and level of the caps also differ from country to country: while Ireland does have a cap on the interest rates on short-term lending, that cap is set at nearly 200 percent. By comparison, the cap for similar loans in France is set at just over 20 percent.

As will be the case with all the characteristics under examination, there is no easy cross-national comparison to be made when it comes to interest rate rules. The target rates, the scope of the limitations imposed, and the efficacy of enforcement must all be considered. Moreover, the laws governing interest rates are historically changed relatively frequently – and many have been adjusted in the aftermath of the global financial crisis. Nevertheless, interest rate restrictions are a crucial component of the financial systems in many countries. Not only do they have the potential to dramatically limit the pool of qualified lenders, they can also incentivize the development of black-market loan-sharking enterprises.[38] Stricter interest rate restrictions can reasonably be assumed to have a mitigating effect on the formation of consumer credit.[39]

Examining these regimes from a broad perspective makes it possible to distinguish between interest rate regimes on the basis of how restrictive they are. Regimes which impose limits on substantially *all* lending – including mortgages – are the most credit-mitigating. Countries which have either no rules, largely ineffective rules, or rules which apply to a small proportion of overall lending have little credit-mitigating effect. In the middle are the systems which limit the interest rates charged on consumer credit while leaving mortgages unregulated. Pooling together the available data for OECD and non-OECD countries in the European Union suggests the breakdown detailed in table one. None of these categorizations are static – countries can easily move from one to another over time. It could be argued, for example, that Japan was more appropriately in the "limited" group until the mid-to-late 2000s. Moreover, it should be remembered that this is an exercise in subjective coding: the position of many countries could be subject to some debate.

Table 1: Credit Effect of Interest Rate Regime During the 2000s[40]

High Credit Mitigation	Modest Credit Mitigation	Limited Credit Mitigation
Belgium, France, Germany, Italy, Poland	Greece, Japan, Portugal, Netherlands, Slovenia, Switzerland	Austria, Australia, Canada, Czech Republic, Denmark, Estonia, Finland, Hungary, Iceland, Ireland, Slovak Republic, Latvia, Lithuania, Luxembourg, New Zealand, Norway, South Korea, Spain, Sweden, United Kingdom, United States*

*Rules vary by state, though cross-border transactions can circumvent these

A second characteristic affecting the formation of credit is the tax treatment of the capital gains earned by selling residential real estate. This is significant in determining the amount of outstanding mortgage debt: demand for mortgages will tend to be lower where households infrequently move and residents rarely view the physical home as an asset subject to speculation. Likewise, it will be higher where households use the "flipping" of residential property to enhance wealth. Measuring national attitudes toward real estate speculation would require complex survey data. However, measuring how amenable a national tax regime is toward real estate speculation is more straightforward. The transfer of any immovable property is subject to a number of dizzying array of different taxes and fees, varying in size depending on the country. The OECD has estimated that the overall cost of transferring a house can run as high as nearly 15 percent of the home's value in Belgium or France to as little as just over two percent in Denmark.[41]

Of particular importance is the capital gains tax – the tax sellers must pay on the difference between the sale price of their home and the purchase price (less depreciation and maintenance costs). With few exceptions, nearly all countries tax capital gains from the transfer of residential property. At the same time, most countries also allow some sort of exception on gains from the transfer of the family home. The intent of these exceptions is to allow families to move home without penalty while preventing "speculation."[42]

Again, cross-national comparison of these taxation regimes is not straightforward. As was the case with interest rate restrictions, there is variability in how these rules are imposed across countries. Rates vary from zero in the Netherlands or New Zealand up to 25 percent and higher – especially in places that tax capital gains progressively as part of regular income, such as in Italy, Germany and Austria. The rate charged can therefore be quite different across countries, as can the generosity of the exemptions offered. In Germany and Austria, capital gains are only fully waived on property that has been owned for ten years. In most countries, the sale of a primary residence is wholly exempt – though definitions of "primary residence" differ from case to case.

The higher the overall rate of taxation and the less generous the exemption, the less appealing it becomes for households to engage in property speculation. This results in a national policy configuration which tends to mitigate the formation of credit. The highest degree of credit-mitigation is seen in countries that require ownership for at least five years in order to gain a tax exclusion or don't permit excludability for most primary residences. The lowest degree of credit-mitigation comes from countries with large exemptions for personal residences or where overall transaction costs typically run less than five percent of the property value. Most other national transfer regimes fall somewhere in the middle – either exhibiting extremely high transfer costs (France) or relatively strict limitations on exemptions (Sweden). Based on these standards, the countries reporting data break down as in table two:

Table 2: Credit Effect of Property Transfer Regime During the 2000s[43]		
High Credit Mitigation	Modest Credit Mitigation	Limited Credit Mitigation
Austria, Belgium, Germany, Switzerland	Australia, Canada, Czech Republic, France, Finland, Greece, Hungary, Ireland, Italy, Japan, Luxembourg, Poland, Portugal, Netherlands, Slovenia, South Korea, Spain, Sweden	Denmark, Estonia, Iceland, Latvia, Lithuania, Netherlands, New Zealand, Norway, Slovak Republic, United Kingdom, United States

The third national characteristic affecting credit formation is society's comfort with high debt loads. As with investigating willingness to buy and sell property in search of capital gains, ascertaining this directly would require survey data. Unlike the case with public perceptions of property, however, there is an indirect way of determining wider comfort with debt. Until the financial crisis, there were few – if any – direct limits on the size of mortgages permitted to borrowers. Even without explicit limits; however, there were observable differences in the typical value of a mortgage relative to the value of the property being bought – the LTV ratio (or LVR).

In many countries during the economic expansion of the mid-2000s, 100 percent LTV mortgages were widespread. This represents the willingness of lenders to front the entire purchase cost of a piece of real estate. In some countries, it was even possible to obtain more than 100 percent – i.e., buyers could borrow more than the full value of the home, becoming immediately "under water." The higher the LTV ratio, the riskier the mortgage: borrowers at 100 percent or over owe more than they could repay through immediate resale of the home. Likewise, lenders' investments are secured by collateral which is insufficient to cover their loss in the event of default. In short, higher LTV ratios indicate a greater acceptance of high debt loads – for both the creditor and debtor. Typically, these are offered in situations where (1) borrowers are highly credit-worthy; (2) there is a presumption that real estate prices will continue to rise; and/or (3) the mortgages are secured through insurance.

The problem with comparing LTV ratios across countries arises because there have historically been few statutory limitations on what lenders could offer. Even in countries with traditionally low LTVs, it might not be impossible for a borrower to secure a 100 percent LTV mortgage if sufficient insurance could be found or the borrower were demonstrably worthy of that much credit. Similarly, even in countries where high-LTV mortgages were routinely offered, they were not offered to all borrowers. Another problem arises from the fact that average LTV ratios are difficult to compare, varying depending on the group chosen (first-time vs. non-first-time homeowners) and who is surveyed.

Nevertheless, a pattern does emerge from a survey of available data on typical LTV ratios. In particular, the break is between countries where countries where both

lenders and borrowers typically kept LTV ratios at a maximum of 80 percent – and those that tended to allow a larger number of LTV ratios above 80 percent. The countries where mortgages tended to keep to this *de facto* maximum can reasonably be assumed to have preferences which mitigate the formation of credit. Where mortgages were routinely offered at higher ratios, lenders and borrowers were typically more cautious. This data is summarized in table three.

Table 3: Credit Effect of Debt "Comfort" During the 2000s[44]	
High Credit Mitigation	Limited Credit Mitigation
Austria, Belgium, Denmark, Finland, Germany, Greece, Hungary, Italy, Japan, Luxembourg, Norway, Slovenia, Slovak Republic, South Korea, Sweden, Switzerland	Australia, Belgium, Canada, Czech Republic, Estonia, France, Greece, Hungary, Iceland, Ireland, Italy, Japan, Latvia, Lithuania, Luxembourg, Poland, Portugal, Netherlands, New Zealand, Spain, United Kingdom, United States

The fourth and fifth credit-relevant characteristics of national financial systems are less about credit mitigation than they are about the credit *encouragement*. The first of these is the degree to which the state subsidizes mortgage markets. These subsidies take several forms: many countries offer some sort of assistance to low-income households trying to buy a home while some offer assistance to potential borrowers irrespective of income levels. Assistance can be direct – taking the form of direct down-payment subsidies and subsidized interest payments – or indirect, offered through state-backed mortgage insurance for homebuyers.

Governments can also become involved through lending directly to homeowners or through purchases of mortgages and mortgage-backed securities. The most noted of schemes are the quasi-public Federal National Mortgage Association and Federal Home Loan Mortgage Corporation in the United States, more commonly known as "Fannie Mae" and "Freddie Mac." Both supported the mortgage market by buying mortgages or MBS from originating lenders and by selling MBS to other buyers. Fannie and Freddie were uncommon in the degree to which they directly engaged in the market. However, they were not entirely unique: the Japanese government was directly involved in mortgage-lending until 2007 through the Government Housing and Loan Corporation (GHLC) and continues to operate the Japan Housing Finance Agency (JHFA), which bears some similarities to Fannie and Freddie. Canada and the Netherlands also engaged in their countries' mortgage markets indirectly, operating mortgage insurance programs backed by either the national or local governments.

The most widespread form of government subsidy to the mortgage market comes through tax codes. Most wealthy economies offer some sort of tax deduction for interest paid on mortgages, allowing taxpayers to subtract their interest payments from taxable income. Few countries aside from the United States and the Netherlands allow for 100

percent of interest to count against income; most cap the deduction permitted. The deduction itself is typically justified on the grounds of encouraging homeownership[45] – while ceilings on the size of the deduction prevent the policy from being regressive, which has arguably happened in the United States.[46] Although these measures are common, there is much diversity in how they operated, even among countries that otherwise have similar policy configurations. For example, both the United States and United Kingdom have long histories of encouraging homeownership – the US through Fannie and Freddie and the UK through initiatives such as Margaret Thatcher's "right-to-buy" program for residents of public housing. Even so, the US still allows full deductibility of mortgage interest while the Gordon Brown had fully phased out the UK's comparable deduction by 2000, citing its distorting effects.[47]

Comparing governments' mortgage incentives again requires a broad-spectrum assessment. It is necessary to account for the government's direct intervention in the primary or secondary market and both the existence and generosity of mortgage interest tax deductions. In 2009, the OECD assessed tax relief schemes in a limited number of countries, quantifying the level of government involvement in mortgage markets in the form of an index. Scores ranged from a high of 1.62 in the Netherlands to zero in countries which avoid participation in the housing market altogether.[48]

Whereas interest rate restrictions, transfer cost regimes, and debt comfort were interpreted as credit-mitigating, efforts to stoke mortgage lending are considered credit-encouraging. Policies allowing mortgage interest to be entirely or mostly deductible (including the highest scorers from the OECD's analysis) and direct government purchases of mortgage products indicate highly credit-encouraging policy mixes. On the other hand, policies which offer only limited (usually means-tested) boosts to homeownership are considered to have a limited encouraging effect. In the middle fall regimes which allow some deductibility of interest payments or participate indirectly in mortgage markets through mechanisms such as insurance schemes (such as Canada). These scores are presented in table four.

Table 4: Credit Effect of Government Mortgage Subsidies in the 2000s[49]

High Credit Encouragement	Modest Credit Encouragement	Limited Credit Encouragement
Czech Republic, Denmark, Finland, Greece, Iceland, Japan, Lithuania, Netherlands, Norway, South Korea, Sweden, United States	Belgium, Canada, Estonia, France, Germany, Ireland, Portugal, Spain, Switzerland	Australia, Austria, Hungary, Italy, Latvia, Luxembourg, New Zealand, Poland, Slovak Republic, Slovenia, United Kingdom

The final characteristic of national financial markets that bears on credit-formation is the existence of a secondary markets for household debt. The primary market for mortgages refers only to the original transaction between homeowner and

bank: the borrower obtains property while the lender obtains a financial asset (the mortgage itself). If this financial asset is subsequently sold, that transaction takes place on the secondary market. There is rarely an active secondary market for mortgages themselves because few are willing to buy an asset based on an unknown individual's promise to repay. However, there is great demand for mortgages packaged that have been repackaged as securities.

Two different types of security are of international significance. The first is the American-style MBS. In order to assemble an MBS, a large number of mortgages are bought and grouped into "pools" of assets held by an SPV. The interest payments made by the original borrowers are grouped together by pool; outside investors buy claims – the MBS itself – on those payments. Covered bonds are an alternative type of mortgage-derived security which are more popular in Continental Europe. With a covered bond, the lending institution sells claims on the interest payments for mortgages held on their books. In contrast to an MBS, the underlying pool of mortgages for a covered bond is constantly in flux: old mortgages are paid and new ones are issued. The pool of mortgages underpinning a covered bond is therefore a mix of different mortgage types. In contrast, the pool of mortgages underpinning an MBS is static and usually comprised of relatively homogenous mortgages. Most importantly, the seller of a covered bond guarantees the interest that payments will be made (even if the original borrower defaults) and must hold the original mortgages on their own balance sheets. This is a departure from the procedure governing US-style MBS, which does not require mortgage originators to guarantee interest payments and permits them to move the original assets off their balance sheets.

As previously noted, both covered bonds and MBS make it easier to funnel savings into the mortgage market. In a non-securitized environment, banks and other mortgage lenders must raise funds through accumulating deposits, issuing bonds, or borrowing from other banks. With securitization, the mortgage originator can sell the proceeds of their lending business to outside investors. This gives virtually anyone the power to participate in indirect mortgage-lending, expanding the pool of savings available for households to borrow from. The credit-accelerating effect of MBS is arguably higher than that of covered bonds because the originator of an MBS is ostensibly off the hook for the performance of their own loan portfolio, lessening the incentive to lend with care. The rules governing precisely what loans can be used to back covered bonds are also generally more restrictive.[50]

Comparing secondary markets for mortgage debt requires accounting for both types of securitized asset. For instance, Denmark had no MBS market to speak of during the 2000s. However, the Danish mortgage bond market – itself somewhat distinct from other covered bonds – amounted to more than 100 percent of GDP by 2007. Large secondary markets for MBS (amounts outstanding valued at larger than 15 percent of GDP by the end of the 2000s) generally indicate a high degree of credit encouragement. Smaller MBS markets and larger covered bond markets are considered to have a more modest credit encouraging effect, especially due to stricter regulatory control and the lack of capacity to move assets off balance sheets. The presence of small to non-existent markets for either MBS or covered bonds do not encourage credit creation at all – this was especially common in Eastern European countries with less-developed consumer

finance systems. Based on these criteria, the countries reporting data for these markets are scored as shown on table five.

Table 5: Credit Effect of Secondary Mortgage Markets in the 2000s[51]

High Credit Encouragement	Modest Credit Encouragement	Limited Credit Encouragement
Ireland, Netherlands, Portugal, Spain, United Kingdom, United States	Australia, Belgium, Canada, Czech Republic, Denmark, Greece, Finland, France, Germany, Hungary, Italy, Japan*, New Zealand, South Korea, Sweden, Switzerland	Austria, Estonia, Latvia, Lithuania, Luxembourg, Norway, Poland, Slovak Republic, Slovenia

*Japanese MBS are a hybrid of covered bonds and MBS, though they are similar to covered bonds in that they require the GHLC/JHFA to keep mortgages on their balance sheets

None of the these financial market characteristics is significant in its own right: a cap on mortgage interest rates, for example, is meaningless when examined without consideration of whether the government is willing to insure mortgage payments in the first place. However, taking all of these features together – and assuming that each feature is of equal importance – it is possible to assemble a rough index representing a country's systemic approach to credit. In order to do this, I have simply assigned each value in tables 1-5 above a value: +3 for high credit encouragement, +2 for modest credit encouragement, +1 for limited credit encouragement, -1 for limited credit mitigation, -2 for modest credit mitigation, and -3 for high credit mitigation. Summing these together, we arrive at a single "score,", ranging from a minimum possible score of -7 to a maximum of 3. These scores, intrinsically meaningful only in a relative sense, are reproduced in table six:

Table 6: National Index of Approach to Credit During the 2000s

Australia -1	Hungary -3	Poland -4
Austria -5	Iceland 1	Portugal 0
Belgium -3	Ireland 1	Slovakia -3
Canada 0	Italy -5	Slovenia -5
Czech Republic 1	Japan -2	South Korea -1
Denmark 0	Latvia -1	Spain 1
Estonia 0	Lithuania 1	Sweden -1
Finland -1	Luxembourg -4	Switzerland -4
France -2	Netherlands 2	United Kingdom 1
Germany -5	New Zealand 0	United States 3
Greece -2	Norway -1	

The Importance of Recognizing Systemic Configuration

Establishing such a typology of systemic approaches to credit is only valuable if it reveals something about countries' household and financial sector borrowing activities. In short, do countries with credit-encouraging configurations – as measured here – have higher debt burdens and faster debt growth than countries with more credit-mitigating configurations? The answer to these questions is clearly "yes." On a basic level, table seven shows that this distinction between "mitigators" and "encouragers" does have empirical traction.[52]

Table 7: Systemic Credit Configuration and Debt Outcomes		
Measure	Relative "Mitigators" (< 0 from index)	Relative "Encouragers" (0 and above from index)
Debt Levels (2009 averages; percent of GDP)		
Household Sector	76%	112%
Financial Sector	437%	943%
Debt Growth (2000-09 averages; percent of GDP)		
Household Sector	20%	39%
Financial Sector	100%	265%

However, this picture is low-resolution: it only permits for a dichotomous breakdown of countries and ignores additional variables of potential importance. A series of ordinary least squares regressions can offer more confidence that national approaches to credit matter even when considering some alternative explanations. In conducting these regressions, I examined four dependent variables: household and financial sector debt levels in 2009 as well as household and financial sector debt growth from 2000-2009. The independent variable of interest is systemic credit configuration, as represented by the index. As the index is intended as a snapshot of the 2000s in general, I use it for both the level and growth rate regressions.

Methodologically, this approach may appear to allow a disaggregation of the five components included within the index. However, doing so would examine each component of the index while holding the others constant. This is inappropriate: each national characteristic of interest is only expected to be significant when taking the others into account. Nor is employing multiple interaction terms for each national feature an option, given the highly limited degrees of freedom available. The index is therefore the best available method of representing a national system's holistic approach to credit.

I also examined several demand-side influences on debt formation. These initially included the availability of alternatives to mortgage-financed homeownership measured through the pervasiveness of rent-control or socially subsidized renting market.[53] However, neither of these measures were found to be statistically significant in any regression, nor did they affect the overall predictive value of the model. Two other

demand-side variables proved more valuable: wages per worker (for the "level" regressions) and increases in wages per worker (for the "growth rate" regressions). Based on the notion that households use financial markets to "smooth" consumption over time, this is expected: households should be willing to borrow more in places where their incomes are high or rising quickly.[54] I also included average real interest rates as an additional driver of demand for credit. Two other variables – housing prices or homeownership rates – are excluded because (1) they are likely determined in part by another independent variable (the systemic approach to credit); (2) the direction of causality between home prices / homeownership and debt levels is highly uncertain.

Table 8: Credit Configuration and Debt Outcomes: Regressions[55]

Dependent Variable (logs)	**HH Debt 2009**	**FC Debt 2009**	**HH Debt Growth: 2000-2009**	**FC Debt Growth: 2000-2009**
Regressors				
Approach to Credit (Index of 2000s)	0.090 (4.81)***	0.112 (2.78)***	0.031 (3.34)***	0.070 (3.21)***
Average Wage (2009; 1000s of EUR)	0.012 (1.99)*	0.027 (2.12)**		
Average Real Interest Rate (2000-2009)	-0.542 (0.02)	15.314 (2.07)**	-1.063 (0.74)	26.934 (3.66)***
Average Annual Wage Change (2000-2009)			2.250 (2.48)**	16.208 (4.16)***
Central/Eastern Europe	-0.455 (3.27)***	-0.513 (1.57)	-0.074 (1.10)**	-1.514 (5.19)***
Observations	32	30	30	25
R^2	0.777	0.623	0.536	0.655
Adjusted R^2	0.744	0.562	0.462	0.586
Prob F > 0	0.000	0.000	0.001	0.002
Breusch-Pagan Prob $Chi^2 > 0$	0.767	0.363	0.832	0.103

*** indicates significance at the 1% level; ** at 5%; * at 10%.

Table eight shows the results from these statistical tests.[56] The findings strongly indicate that national credit regimes are closely associated with the higher household and financial sector debt levels and faster growth rates – with the index significant at the one percent level of confidence. In terms of demand-side factors, households did tend to borrow more and increase borrowing faster where wages were high. Real short-term interest rates appeared to have little bearing on overall indebtedness, aside from the finding that financial sector debt appeared to grow fastest where interest rates were highest – likely due to banks attempting to move resources into economies promising the highest return.

It is highly plausible that the relationship revealed here is causal – that credit configuration does affect both debt levels and growth rates. Therefore, it remains likely that the identified national characteristics provide a key piece of the capital reallocation puzzle. Even if these statistical tests can only suggest causality, however, they clearly reveal that systemic approaches to credit *matter;* that is, they are unambiguously linked to international variation of debt in the household and the financial sectors.

Getting to "Why?"

Finding that systemic approaches to credit affect household and financial sector debt is unsatisfying without getting at *why* different countries treat credit differently. No single explanation is sufficient; a country's approach to financial and household sector debt stem from a *mélange* of institutional, interest-based, and ideational factors. In particular, I focus here on the institutionalized lending tendencies of banks, the economic importance of pension funds, the self-interest of policymakers looking to win support of the finance community and a growth-hungry public, and the ideas of both policymakers and the public concerning debt and finance.

Seán Ó Riain's account of the financial crisis in Ireland points to the structure of Irish banks and the decline of the state in influencing capital allocation as crucial factors in shaping the country's debt expansion.[57] He argues that the late-1990s withdrawal of public finance agencies, together with increased access to international capital permitted by the launch of the euro, empowered a domestic banking sector that was best suited to lending to property developers and households. This pushed the country toward household and financial sector borrowing at the expense of non-financial business investment. This take on Ireland is highly sensitive to that country's idiosyncrasies. In order to test whether his finding is generalizable, it would be necessary to assess financial institutions' systemic comfort with asset-backed lending (e.g., mortgages) as compared to cash-flow-backed lending (i.e., business lending) – and then determine whether that tendency is reflected in approach to credit. This is a promising line of inquiry but is a task for another paper.

In contrast, a more general institutionalist account drawing on the varieties of capitalism tradition finds little empirical support. It may seem plausible that there is less need to promote household borrowing in countries where economic activity is largely generated by productive investment and the export of manufactured goods. Likewise, systems where demand is reliant on financial services, consumption and residential investment might find it easier to grow through the generation of household and financial

sector debt. Despite the logic of this supposition, reliance on consumption and residential investment is not at all correlated with credit encouragement.[58] There is a positive relationship between credit encouragement and both consumption and residential investment during the 1990s and 2000s; however, the causality is likely reversed. That is, countries which encourage household borrowing tend to grow more dependent on consumption and residential construction.

Another institutionalist causal story, proposed by Ewald Engelen, Martijn Konings, and Rodrigo Fernandez, focuses on the role of large investors in promoting "financialization" – taken here to mean a propensity to encourage credit formation.[59] The argument holds that large institutional investors (primarily pensions) require financial assets to purchase. Consequently, encouraging credit formation – particularly the sort of securitized credit formation fueled by household and financial sector borrowing – improves pension funds' ability to generate returns. This logic is more readily testable than Ó Riain's and is largely borne out by available data: countries where pensions held assets worth more than 10 percent of GDP at the start of the 2000s averaged a relatively high index score of zero. The average for countries where pension funds controlled less than 10 percent of GDP was far lower, at only -2.38. This supports the contention that the presence of large pension funds incentivizes countries to encourage household and financial sector borrowing.

A further explanation for divergence between credit-encouraging and credit-mitigating countries emphasizes the pressures facing political leaders. It stands to reason that countries where financial actors have more leverage over political actors will tend to avoid repressive financial policies – simply because restricting credit formation tends to limit financial institutions' profit-making capacity. There is some empirical support for this idea to be found in works such as Simon Johnson and James Kwak's *13 Bankers*[60] as well as Ó Riain's account of the close ties between property developers and the Irish political elite.

This argument anecdotally fits well with histories of other relative "encouragers:" in Britain, for example, the Labour party engaged in a sustained charm offensive to win electoral support from finance leaders in the City of London after the party's 1992 defeat. It became the belief of Labour's then-rising leaders, Tony Blair and Gordon Brown, that gaining the support of the City was essential for Labour if the party intended to return to power.[61] In order to gain that support, Labour had to convince the City that it was not interested in rolling back Margaret Thatcher's liberalizing moves. Labour re-branded itself as the party of business, promising to avoid reforms which would unduly affect the financial industry. Once elected, Labour then presided over the creation of a new financial supervisor – one that enshrined the principles of light-touch self-regulation.[62]

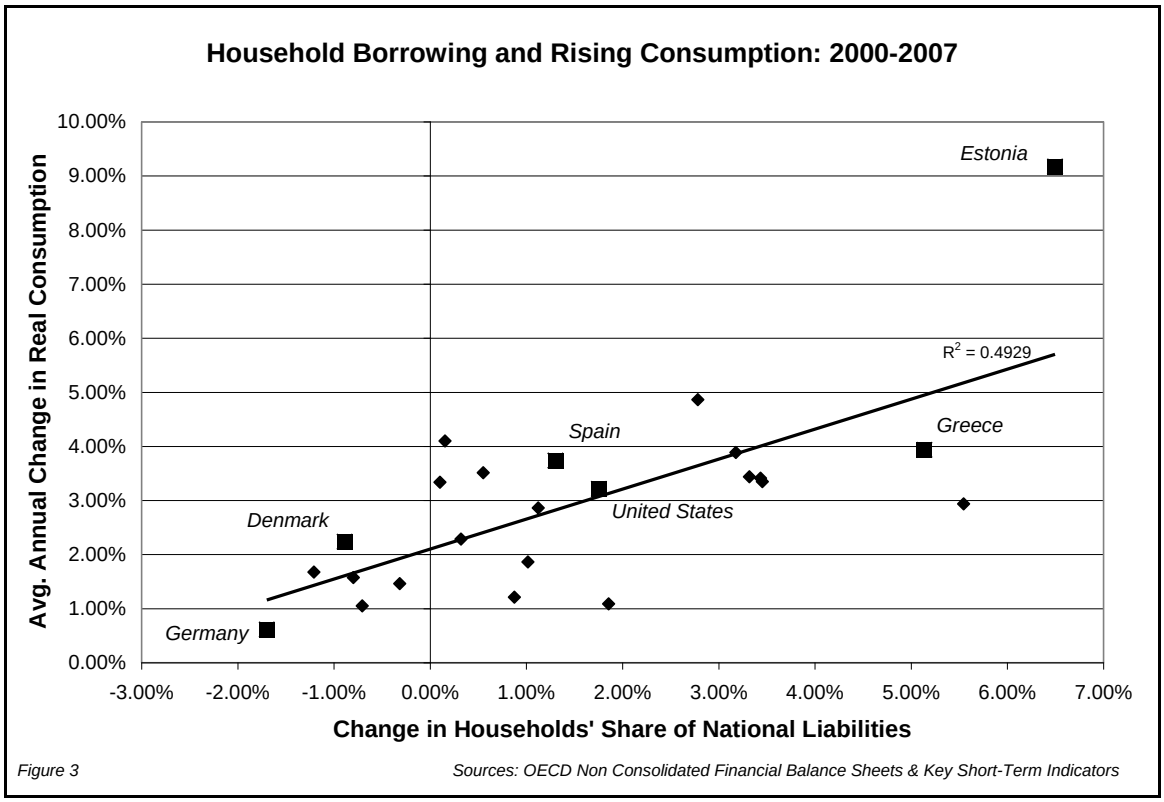


Figure 3 *Sources: OECD Non Consolidated Financial Balance Sheets & Key Short-Term Indicators*

Furthermore, the political calculus in favor of encouraging credit formation need not stem from direct leverage over politicians: economies that encourage the expansion of credit tend to grow faster during good times.[63] While it is also true that encouraging borrowing intensifies recessions, encouraging credit formation can result in appealing outcomes like faster growth, rising housing prices, and improved employment. As the 2000s and mid-to-late 1980s demonstrated, such credit-fueled expansions can last over several electoral cycles. As shown in figure three, the effect on consumption during boom-times is profound and undoubtedly present. It therefore makes political sense for governments to engage in a strategy of encouraging borrowing (which, as Mian and Sufi have pointed out, has been the main crisis-response tactic of American policymakers today). Even in countries that were hesitant to encourage borrowing, voices of dissent maintained that credit-mitigation was ultimately harmful. The Bank of France, for example, warned in the mid-2000s that the country was forgoing economic growth because the country was *under*indebted.[64]

At the same time, some politicians resisted this urge during the 2000s boom. Understanding why some sought to take advantage of such growth opportunities – while others did not – requires turning to another causal force. That force is the power of ideas, generally defined here as shared opinions on the nature of causality.[65] Ideas concerning debt and whether financial markets are benign or malign diverge sharply. On one hand, there are potent arguments – largely derived from the English-speaking world – that financial tools are invaluable for stabilizing economies or helping individuals better manage life's inherent risks.[66] On the other, there are views – especially in some Continental European countries – that financial markets are intrinsically predatory. When campaigning for the French presidency, François Hollande declared, "my true enemy has no name, no face, no political party, it will never run for office, and yet it governs. It is

the world of finance."[67] Likewise, the German translations of "debt" and "guilt" are from the same root word.

Where different ideas take hold of communities, it stands to reason that formal policy toward financial markets – as well as in informal attitudes – will differ as well. In states where populations and leaders are more suspicious of financial markets and indebtedness, the risks associated with encouraging credit are more salient than the gains. Such systems tend toward more paternalistic policies, especially with regard to usury. The reverse is true where financial markets are seen as tools of growth, wealth-enhancement, and stability. Iain Ramsey[68] and others have used France – in contrast with Britain or the United States – to illustrate the causal force of financial skepticism in shaping policy.[69] Trumbull disagrees, rightly arguing that there is little evidence of cross-cultural divergence of attitudes toward finance in the US and France. Even so, Trumbull contradictorily argues that the ideas of labor unions *did* matter in shaping national approaches to debt. A synthesis worth examining is that elite-level ideas differ from – and matter more than – diffuse public opinion.

In sum, the determinants of national strategies toward indebtedness are complex, interrelated, and highly idiosyncratic. Some of these propositions lend themselves to easy testing – such as the clear association between the size of pension funds and the choice to encourage credit formation. Most, like the power of ideas and banks' preference for different types of debt, are propositions best tested through more detailed case studies. If this paper has shown that holistically assessing an economy's approach to credit is important, then it becomes all the more essential that these studies be undertaken.

That task is more important and interesting during this post-crisis period: many developed countries are now designing and implementing new financial rules. Governments have signaled new interest in usury caps and now actively restrict LTV ratios in New Zealand, Sweden, Norway, Canada, South Korea, the Netherlands, Hungary, and Finland. Here, I would suggest focusing more closely on the political and ideational explanations for disparate approaches to credit: while institutional approaches to political economy are generally good at explaining stability, it is shifting ideas[70] and new political realities[71] that tend to generate change. Explaining which countries choose to change – and which don't – will help explain future capital allocations.

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Author Biography

Gregory Fuller is currently a Professorial Lecturer at American University's School of International Service, having received his Ph.D. from the Johns Hopkins School of Advanced International Studies in May 2014. Dr. Fuller’s research focuses on changes in how capitalist economies allocate financial resources – both across countries and across economic sectors – and how those changes affect society.