CAN MACROPRUDENTIAL REGULATION SAVE NEOLIBERALISM?

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Paper prepared for the annual meeting of the Political Studies Association, Cardiff, Wales, March 25-27, 2013

ABSTRACT: Many interpreted the 2008 global financial crisis (GFC) as marking the end of neoliberalism. This paper argues that the GFC shows less a failure of the neoliberal growth model as a problem of excessive credit. Focusing predominantly on the two major neoliberal economies, Britain and the United States, this paper explores competing explanations drawn from the financialization literature: the debt-driven growth hypothesis and the financial instability hypothesis. The rationale and empirical evidence for both hypotheses are reviewed, showing that the financial instability hypothesis, with its focus on the development and impact of the financial (credit) cycle, offer the most compelling explanation of the crash. This tendency for excessive credit growth produces huge swells in the financial cycle which crash with destructive force upon the real economy. This is the main flaw of the neoliberal growth model. The solution is to develop new macroprudential financial regulations; that is, broad controls on financial markets (rather than the regulation of specific financial products) so as to smooth the credit cycle. Implementing macroprudential financial controls could ‘save’ neoliberalism by securing its more robust output while limiting the disruptive financial shocks that serve to undercut that dynamism. These policies are designed for stabilizing economies, however. The issue of how best to drag these economies out of their current slump still remains.

Special thanks to my colleague Jong-Hun Kim for assistance with some of the data for this paper. All conclusions (and errors) are, of course, mine alone.
The neoliberal model of political economy failed in 2008. That much is for sure. But is the damage fixable. Is the condition of neoliberalism terminal or acute? Among comparative political economists, obituaries of neoliberalism were swift and unequivocal: “…the Anglo-liberal growth model is irretrievably and irreversibly compromised” (Hay, 2010, pp. 25-26.); “…neoliberalism has self-destructed” (Mykhnenko and Birch, 2010, p. 255); “The current crisis, and the responses to it, seem to have delivered a death blow to neo-liberalism” (Fine, 2009, p. 1). The crisis indeed saw emergency bailouts and Keynesian pump-priming in the very heartlands of neoliberalism. In the intervening years the political center of gravity shifted again to the need to reduce sovereign debt through austerity. Regulatory controls have been imposed on liberalized financial markets (e.g., the Dodd-Frank Act), but these have not been nearly as far reaching as some would have expected or hoped a few years ago. Despite the crash, the core tenets of neoliberalism remain firmly entrenched; it has suffered from a “strange non-death” (Crouch, 2011)

Trying to understand – and correct – our current calamities has produced a multitude of journalistic and scholarly analyses.1 Elaborating the causes of the global financial crisis (GFC) often requires dragging the reader through a morass of obscure financial terminology: mortgage-backed securities (MBS), credit default swaps (CDS), asset-backed commercial paper (ABCP), structured investment vehicles (SIV or “shadow banks”), collateralized debt obligations (CDO -- and CDO2, and CDO3), and such (for my own contribution to this cacophony, see Casey, 2011). This paper aims to get at the issue from a higher level of analysis – mapping the contours of the forest rather than sketching the details of the trees. Specifically, we need to understand the broad mechanism within the neoliberal model that led to the crisis whether to fix it or how.

Neoliberal economies were, among other things, becoming increasingly “financialized”, a term used by multiple authors in different ways to denote the rising influence and importance on the financial sector in both everyday life and as a driver of economic growth. Too much of the literature on financialization, unfortunately, leaps from description to explanation without postulating the intervening causal mechanisms. Two hypotheses that avoid this failing are the debt-driven growth hypothesis (or DDG) and the financial instability hypothesis (or IFH). The debt-driven growth hypothesis contends that neoliberalism was never as productive as its adherents claimed. Instead, liberalizing markets led to declining profits and wages over time. To maintain growth, corporations and individuals turned to the financial sector to increase borrowing. Neoliberalism, in short, requires sustained infusions of private debt in order to maintain consumption and growth. This unstable accumulation of debt ended in the crash. Without major reform, neoliberal economies can only revive by propagating a new debt bubble, itself likely to burst even more spectacularly than in 2008. From this perspective, neoliberalism is terminal. Alternately the financial instability hypothesis (or FIH) focuses on the instabilities created by the financial sector. Neoclassical economics portrays markets as stable and self-correcting barring some exogenous shock or government interference. Prices thus reflect the real

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1 The best journalistic account is Sorkin, 2011. For policy-oriented works from contrasting perspectives see Posner, 2009; Stiglitz, 2010; and Taylor, 2009. By far the best scholarly analysis is Freidman and Kraus, 2011.
value of assets. Rising asset prices (e.g., equities, securities, houses) imply that the real value of those assets has increased. The FIH rejects this argument, focusing on how speculative euphorias artificially inflate assets value. When these bubbles grow too big, the system becomes unstable and collapses, dragging the real economy with it. The key insight of the FIH is that this is not just a random unfortunate event; it is a regular, expected outcome. Booming markets lead economic actors to recalibrate their sense of risk, embracing more speculative investments. Rather than being steady-state, equilibrium systems that weed out bad investments, free market economies – especially those with large financial sectors – go through regular cycles of stability, fragility, and crisis. The experience of the 2000s was merely the most recent example. This perspective aligns with the debt-drive growth hypothesis in fingerling debt as the cause of the GFC. They differ on the directions of causation and how these problems are contextualized. For the FIH, instabilities derive from the structures of financial system producing macroeconomic instabilities (as opposed to the DDG microeconomic focus on profits and wages), a problem inherent in capitalism, not just neoliberal era. Understood as such, the ailments of neoliberalism are more acute and amenable to recovery via proper policy prescriptions, specifically macroprudential financial regulations to control the credit cycle.

This paper will outline the arguments of both hypotheses and explore the empirical evidence supporting each. It will be shown that while debt-driven growth is an accurate description of the years immediately preceding the GFC, the data is not supportive of its interpretation of the steady deterioration of accumulation across the neoliberal era as a whole. A better fit is found using the FIH portrayal of the GFC as stemming from the collapse of a major financial cycle. Avoiding a future crash requires policies that can flatten the fluctuation of these cycles; specifically, macroprudential financial regulations (hereafter MPR). If the tendency of neoliberalism is to develop extreme credit cycles, macroprudential regulations may be the cure. As such, MPR can save neoliberalism.

NEOLIBERALISM AND FINANCIALIZATION

Financialization refers to “…the increasing role of financial motives, financial markets, financial actors and financial institutions in the operation of domestic and international economies” (Epstein, 2005, p. 3), or “…how individuals, firms and economies are increasingly mediated by new relations with financial markets” (Montgomerie and Williams, 2009, p. 100), or how “…economic activity has generally been more subject to the logic and imperatives of interest-bearing capital” (Fine, 2010, p. 99). All of these are a fine as they go; attempting to adjudicate among them to determine the “proper” definition would do little to move the argument forward. Of greater utility is to highlight the key elements of the concept bound within these competing definitions.

Financialization first occurs among multiples actors at different levels of analysis. Financialization represents a shift, manifest through national institutions and international economic linkages, to a new finance-led regime of accumulation (French, Layshon, and
Wainwright, p. 802). An the firm level, financialization refers to the increasing contribution of the financial sector to national economic output (Kotz, 2008, p. 1) and a growing reliance on financial activity (by financial and non-financial firms alike) as a source of corporate profits (Krippner, 2011, p. 28). At the individual level the “democratization of finance” – the expansion of consumer credit, the shift to defined contribution pension schemes – directly connects individuals to the currents of global capital markets (see especially Langley, 2008). In short, financialization occurs at the global, national, corporate, and consumer levels, all linked in complex financial webs, the interconnections (and interdependencies) of which were brought home with terrifying clarity during the GFC.

Financialization, moreover, represents a *quantitative and a qualitative shift*. The quantitative is most frequently notes as it is the most easily measured (French et al., p. 807). According the US Bureau of Economic Analysis (BEA), Finance, Insurance, and Real Estate (FIRE) accounted for 10.5% of gross value added in 1947. By 2001 that figure had doubled to 20.9%. Similar trends are found in the UK (Haldane, 2010, p. 4) as well as Australia and Ireland (Weale, 2009, p. 6). Finance also accounted for an increasing share of corporate profits. The US financial sector accounted for 15% of corporate profits in 1980. On the eve of the crisis in 2006 it was 27% (Financial Crisis Inquiry Commission, 2001, p. xvii). The change was even more dramatic in the UK. Financial intermediation accounted for around 1.5% of whole economy profits from 1948 and 1978. By 2008 it had rocketed up to 15% (Haldane, 2010, p.4). Martin Weale notes that from 1987-2007, the UK financial services sector grew at 4.7% per annum while the whole economy grew at 2.6%. However one looks at it, economic growth in the US and UK is dependent on the financial sector.

But is it perhaps the qualitative side that is of greater significance, illustrated by the changing dynamics of both corporate strategy and individual finance. The spread of “shareholder value” as the yardstick for corporate performance has long been criticized for favoring short-term profitability, downsized workforces, offshoring, and underinvestment. William Lazonick bemoans trillions spent by multinationals on stock repurchases, providing short-term boosts to share prices while diverting resources from productive investment (Lazonick, 2011, p. 696). Financialization not only changes market strategy, but what firms do. Non-financial firms have turned to financial activities and investment in non-tangible financial assets as ways to boost profits. The quintessential example is GMAC developed as a consumer financing arm of General Motors.² By the mid-2000s it had transformed into a full-fledged financial corporation with significant investments in the housing market, providing a substantial boon to GM’s bottom line. Krippner presents evidence to suggest that this is occurring across all companies (Krippner, 2011, pp. 30-40) ³

Financial imperatives have also *penetrated even more deeply into everyday life*. Particularly in the United States, the shift from defined benefit to defined contribution pension

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² GMAC is now Ally Financial. It grew in significance during the neoliberal era, but long pre-dates it. It was founded in 1919 and spread its operations to the UK in 1920.

³ At least prior to the crisis; Krippner’s analysis only goes up to 2001.
schemes – which now constitute around 70% of all American pensions (The Economist, 9 April 2011) – provides an expanded pool of funds to institutional investors and connect individuals’ financial security to market movements. Securitization increases mortgage volumes by converting illiquid mortgages into liquid securities, putting homeowners at the headwaters of a value change stretching around the financial world. Combined with other innovations, such as universal credit cards and automated credit scoring, the pool of consumer credit has greatly expanded – the so-called “democratization of finance” (Langley, 2008, p. 46; see Litan 2010 for a good discussion of financial innovations and their implications). The economic role of individuals is transformed from “earners-consumers-savers” to “earners-consumers-investors” (Hall, p. 405). These changes are often negatively portrayed in Polanyian terms, the conceit of the neoliberal era being to abandon the security of “embedded liberalism” and expose individuals to the risks and disciplines of financial markets (Konings, 2009, p. 112). To avert a Polanyian backlash (Wade, 2008, p. 6-7), people had to be made more comfortable with risk through the rhetoric of self-reliance and individual responsibility, transforming them into “responsible and entrepreneurial borrowers” (Langley, 2008, p. 186) whose consumption is connected to their returns on investment. As the major investment (and bulk of debt) for most people is their house, the relative value of houses, and the potential for home equity withdraw, escalates in macroeconomic importance (Hay, 2009). Future consumption, rather than being a function of present day savings, may be driven by the returns on leveraged investments. Far from markets becoming “disembedded” from social relations, financialization has become deeply embedded in the fabric of American society (Panitch and Konings, 2009, p. 68).

Each of the points above helps to illuminate part of a larger (albeit still somewhat amorphous picture) of this thing we call “financialization”. Still, it is important to distinguish between financialization as a descriptive variable and financialization as a causal variable. As indicated above, financialization is frequently defined as shifts in economic activity and relationships that have occurred over many decades (i.e., finance accounts for a greater percentage of economic activity than in the past). Unfortunately, too many authors quickly leap from that description to causation without closely examining the empirical linkages. Thus if rising income inequality occurred alongside financialization, that is presumed to explain the outcome (Hacker and Pierson, 2010; Tomaskovic-Devey and Lin, 2011). Similarly, there is a tendency to impute intention upon the actions of policymakers because it accords with the larger narrative. If the loose money policy of the Federal Reserve in the early 2000s produced a housing bubble, then Alan Greenspan and Ben Bernanke must have intended it to do so (Brenner, 2004 and 2009). Descriptive accounts are thus treated as causal accounts when in fact the arguments are more correlative. Yet it is causation that concerns us – whether or not financialization was the cause of both growth and instability within the neoliberal paradigm. It is to a closer examination of causal hypotheses deriving from the financialization perspective to which we next turn.
THE DEBT-DRIVEN GROWTH HYPOTHESIS

Many critics of neoliberalism make the case that growth in this era was not, as its supporters contend, founded upon productive improvements induced by the rigors of the market. It was the illusion of growth built on the accumulation of private debt. The most representative proponents of the debt-driven growth hypothesis -- Robert Brenner (2002, 2004, 2006 and 2009) and Colin Crouch (2009 and 2011) – come at the question from different angles, yet arrive at the same destination.

Robert Brenner begins with the analysis of capital accumulation and profitability since the Second World War. The era of the Keynesian welfare state was the “Golden Age” of economic growth, with rising corporate profits and real wages. Since 1973, however, Western capitalist economies have been in a long downturn. Economic performance “…in the advanced capitalist economies (the US, the EU, or Japan) taken singly or together…has worsened, business cycle to business cycle, since the end of the postwar boom…” (Brenner, 2006, p. xxv). The falling rate of profit was rooted in a “…persistent tendency toward over-capacity in the global manufacturing sector, which originated with the intensification of international competition between the mid-1960s and mid-1970s.” (Brenner, 2009, p. 9) Corporations responded to the downward pressure on profits by squeezing wages, brought to the political fore with the neoliberal assault on organized labor in the 1980s. Yet this generated chronic weaknesses in aggregate demand (Brenner, 2009, p. 9), creating further negative feedbacks. The reckoning was postponed by artificially boosting both profits and demand through the infusion of titanic volumes of credit. Crisis, as such, always loomed beneath the calm waters of the “Great Moderation”, and indeed breached the surface periodically (e.g., the East Asian financial crisis; the dot com crash). Each new crisis required ever more credit, funneled through the economy through more varied and risky channels, a form of “asset price Keynesianism” (Brenner, 2009, p. 3). From this perspective the overexpansion of credit engendered by the Federal Reserve and the bizarre array of mind-numbingly complex financial innovations was to be expected, as was the GFC. It was nothing more than the most extreme crisis of the long downturn.

Building on Brenner’s idea, James Perry and Paul Lewis argue that neoliberal financialization should be understood as the finance’s intensifying search for yield (2012, p. 94). From the late 1980s to the late 1990s, finance was able to push industrial capital, bolstered by ideas of shareholder value, to reduce retained earnings, downsize capital assets, and increase debt, all at the expense of the majority of workers. Eventually, however, corporations could no longer absorb more debt. The quest for yield now turned to the household sector. Riding a wave of cheap credit in the 2000s, consumers were able to absorb debt through their houses and provide a renewed stream of financial profits (Perry and Lewis, 2012, p. 94). Until, of course, this sector could no longer absorb more debt. The irony is that restructuring industry drove down average household income and ultimately reduced their ability to absorb further debt and provide the financial sector with a source of profits (Perry and Lewis, 2012, p. 111-112).
If Brenner’s causation runs from corporations to individuals, Colin Crouch moves from the consumer up, starting from trends in wage rates and aggregate personal consumption. Stagnant real wages since the seventies resulted from (in this perspective) the decline in the generosity of the social welfare state and the diminished power of organized labor (Lim and Khor, p. 213). According to Crouch (2009), this exposes a fundamental challenge for capitalism. Profitability requires labor flexibility, yet this renders workers insecure and makes them less confident consumers, undermining profitability. The postwar Keynesian model protected vulnerable workers (and smoothed the business cycle) through the extension of the welfare state, allowing them to become stable mass consumers. But it also elicited a “spending ratchet”. Public spending rose during recessions, but did not decline during booms as Keynes had advocated, creating inflationary pressures and undermining growth. Hence the turn to neoliberalism. The previous history of free markets was of constant instability – booms and busts – undermining the stable consumption needed for mass markets. How do you create stable secure consumers if traditional Keynesian approaches are removed? In Crouch’s depiction, Thatcher and Reagan did not so much alter the economic model as shift the locus of growth financing.

…two very different forces came together to rescue the neoliberal model from the instability that would otherwise have been its fate: the growth of credit markets for poor and middle income people, and the derivatives and futures markets among the very wealthy. This combination produced a model of privatized Keynesianism….Instead of governments taking on debt to stimulate the economy, individuals and families did so, including some rather poor ones (Crouch, 2011, p. 114).

The problem of potential under-consumption in the face of stagnant wages was thus resolved through a vast expansion of consumer credit, resting upon the largest asset that most people owned: their houses. “The general buoyancy of the economy has been sustained by debt” (Crouch, 2011, p. 109). That private debt rose substantially during this period is clear. Household sector debt stood at 50% of GDP in the US in 1980. By 2000 it was up to 71%; by 2007 to 99%. The total domestic debt (public and private) in the US was equivalent of 357% of GDP in 2007 (Lim and Khor, 2011, p. 212, Table 1). Domestic debt for the UK ran at 382% of GDP in 2008 (McKinsey, p. 18).

Vitally, advocates of debt-driven accumulation are not just describing events or providing an explanation specifically for the global financial crisis. For them, the crash had to happen because neoliberalism cannot deliver stable, long-term growth (Hay, 2010, p. 1). Even attempts to regulate the amount of credit in the system are insufficient unless the level and mode of profit accumulation in the financial sector is not limited – a politically dubious proposition (Perry and Lewis, p. 112). For advocates of debt-driven accumulation, neoliberalism is dead, even if it struggles on in a zombie-like state.

Given the circumstances of the recent crisis, the debt-driven growth hypothesis has much to speak for it. And certainly the likes of Robert Brenner were making raising these concerns
well before the GFC. Still, there are logical weaknesses. For one, these authors portray debt bubbles as an outgrowth of neoliberalism, yet they are hardly unique to that era, having developed periodically for centuries (Reinhart and Rogoff, 2009). Secondly, they make something of a fetish of the postwar era. Particularly Brenner’s arguments only hold if the profit rates and wage growth of the immediate postwar period are treated as “normal”, the baseline against which all variance is judged. In so many ways this period is exceptional, the unparalleled confluence of social, economic, and political transformations emerging from the twin catastrophes of the Great Depression and the Second World War, all creating exceptionally favorable demand conditions. Third, Crouch implicitly accepts the distinction common to the broader literature on comparative political economy that neoliberal (or Anglo-American) political economy can be distinguished from other varieties of capitalism. For Brenner these are general failings of advanced capitalism. Finally, they fail to acknowledge conditions may arise that warrant an increase in credit, particularly technological changes and its impact on productivity and output. That is, they make no distinction between salubrious and harmful credit booms.

The logical flaws aside, is the debt-driven growth hypothesis empirically sound? For the hypothesis to hold the evidence must show: (1) the performance of neoliberal economies has steadily declined since the end of the postwar boom; and (2) there was a strong and consistent correlation between private (particularly consumer) debt and growth throughout the period. We can get at the first proposition starting with Table 1,4 which presents the growth in real per capita GDP. It was indeed highest during the long postwar boom, especially in Western Europe. For the UK and US, the post-1981 figures are comparable to earlier periods. Turning to productivity, again, there is a significant decline in performance after 1973. However, whether measured as real GDP per person employed or GDP per hour worked, the Anglo-American economies have held up better. Economic performance has declined since 1973, but it has done so everywhere, and the post-1973 period does not look exceptionally bad compared to pre-World War II eras. The neoliberal economies have performed comparatively admirably in the last three decades (until, of course, the 2008 crash).

Brenner’s larger argument hinges on overproduction among the advanced economies leading to reduced profit rates and rising corporate debt. Overproduction should by reduced industrial capacity utilization, shown in Figure 1. Overall, the trend has indeed been downward since 1973. On the other hand, the bulk of that decline came between 1973 and 1981; despite another sharp decline after the GFC, capacity utilization is up across the neoliberal era as a whole. Turning to the relationship between debt and profits,5 Figure 2 presents the corporate financial obligation ratios plotted against the trends in non-financial corporate profits. Two points should be noted. One, profit rates are quite volatile and only loosely connected to corporate debt. Secondly, and contrary to Perry and Lewis, increased profitability seems to

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4 These are grouped into periods of growth between major recessions, with is the same presentation used by Brenner.
5 These include the corporate financial obligation ratio (i.e., the ratio of debt payments to income) and non-financial corporate profits
proceed rising debt, particularly in the 1990s, the period in which they claimed that growth was maintained only through rising corporate debt. At best the causation here – whether debts are driving profits or profits are encouraging companies to take on more debt -- here is muddled. Taken in total, the data related to economy-wide and corporate performance are not sufficiently consistent with the debt-driven growth hypothesis.

What of the connection between rising consumer debt and growth? If growth was indeed dependent upon debt-fueled consumption, this should be evidenced by consumer debt not only rising with GDP (indeed, it should be a leading indicator [McBride, 2006]), but also making a greater contribution to the consumption component of GDP. Establishing that this occurred only in the years immediately prior to the crash (i.e., 2000-07) is not enough. Debt-driven growth is said to be a structural pathology of the neoliberal model, not just an ordinary credit bubble.

If debt is rising and incomes are stagnant, one would first expect to see households diverting a greater percentage of their income going into debt service. Figure 3 shows the quarterly household debt service ratio (DSR – the ratio of debt payments to disposable income) for the United States going back to 1980, plotted with annual GDP growth. The DSR did indeed rise from 11.13% in 1980 to 14.08% in 2007Q3. Most of this increase came after 2000, however. From 1980 to 2000 the figure fluctuated fairly moderately between 10.5% and 12%, largely tracking with GDP growth. This is hardly surprising finding. Economic growth correlates with increased purchases of consumer durables, most of which are financed. It is only after 2000 that the DSR continues to rise as GDP slumps.

Home equity withdrawal, borrowing against the accumulated equity in one’s home to purchase consumer goods, has a pride of place in debt-drive growth argument; it is the epitome of unsustainable debt-financed consumption. Figure 4 presents data for the UK, showing quarterly changes for housing equity withdrawal going back to 1970 plotted with GDP. Equity withdrawal shows a twin peaked pattern, rising with both the housing boom of the late 1980s and in the 2000s. Yet the rise in the 1980s corresponds with GDP growth while the 2000s peak goes well above it, indicating that housing equity withdraw was indeed boosting growth substantially in this period. More significantly, home equity withdrawal fell during most of the 1990s despite the fact that GDP growth was then quite strong. For the United States, financial analyst Bill McBride (2006) used Federal Reserve Flow of Funds data to calculate quarterly mortgage equity withdrawal going back to the 1970s. The results were similar for the UK – they largely followed the business cycle in the 1970s and 1980s, was negative for much of the 1990s, then shot up after the turn of the century.

The key links of causation for the debt ratchet hypothesis is that between equity withdrawal, consumption, and growth. Figure 5 (from Bivens, 2008) plots US consumption and mortgage equity withdrawals from 1953 up to mid-2007. Consumption and equity withdraw increased in tandem and steeply in the decade before the crash. Equity withdrawal did indeed seem to pull up consumption – not only in the early 2000s, also in the 1970s. In the 1980s it rose in tandem with consumption and then declined in the 1990s even as consumption continued to rise. Toward the end of the decade and into the 2000s that it rises sharply alone with the steep
rise in consumption. McBride (2006) used the mortgage equity withdraw analysis cited above to has provided an estimate of US GDP calculated with and without mortgage equity withdrawal going back to 1976.\(^6\) In the housing surge of the late 1980s, mortgage equity withdrawal gave an approximately 0.5% boost to GDP. With negative MEW for most of the 1990s, the impact on GDP was slightly negative. After 2000 it became a major pull on GDP, boosting it in McBride’s estimates by 2.2% per year from 2000-06. He shows no growth in 2000-01 without it. In the run-up to the crisis, equity withdrawal seems to be feeding consumption and sustaining an otherwise stagnant economy. For our purposes, it is worth noting that the data shows this more as a sudden, punctuated shift in the data rather than an exponentially building trend.

Taken together, the data supports the conclusion that economic output had slowed substantially in the in the Anglo-American economies in the 2000s and was only offset by consumption fueled by private debt. What the evidence does not support is the conclusion that these economies saw a secular downturn from 1973 to the present, or that private debt was an increasingly significant component of growth, rising throughout the neoliberal era. There was a clear punctuation at the turn of the century. The debt-driven growth hypothesis seems to explain the results of the 2000s (bubble and collapse), but not of the entire period.

**THE FINANCIAL INSTABILITY HYPOTHESIS**

The financial instability hypothesis (FIH) is most closely associated with the works of Hyman Minsky (1986/2008 and 1992), Charles Kindleberger (1989), and more recently Carmen Reinhart and Kenneth Rogoff (2009). For the debt-driven growth hypothesis, the problems of neoliberalism reside in the productive side of the economy, which metastasizes into financial excesses. The financial instability hypothesis reverses this causation -- excesses in the financial structure create instabilities which undermine productive growth. The focus of monetary policy in the years before the crash was on maintaining a stable price system, seen (going back to the experience of the 1970s) as the most dangerous potential instability. Having mastered the demon of inflation, policymakers felt confident that financial markets would innovate, grow and take care of themselves. Robert Lucas for example, declared in his 2003 presidential address to the American Economic Association that the “…central problem of depression prevention has been solved, for all practical purposes, and has in fact been solved for many decades” (Lucas, 2003, p. 1). The ‘Great Moderation’, it appeared, would never end. As such, the GFC was just the latest in a long historical line of “speculative manias” Kindleberger, 1989, Chapter 3; Reinhart and Rogoff, 2009, Chapter 1). Each boom is built upon a belief that the economic fundamentals have changed for the better; that, to use Reinhart and Rogoff’s phrase, “this time is different”. The root causes in this view are psychological: ignorance and hubris. Hyman Minsky’s insight was to identify how the institutions and incentives of the financial system, particularly during periods of economic stability, lead to the creation of excessive credit (Magnus, 2007, p. 6). In the

\(^6\) McBride uses Federal Reserve Flow of Funds data and BEA GDP data. He follows the assumption advocated by Alan Greenspan that 50% of mortgage equity withdrawal moves forward into personal consumption.
neoclassical framework, financial markets are self-equilibrating, barring exogenous shocks. From Minsky’s perspective the normal profit-seeking activity of banks (endogenous) produces instabilities in the system, leading it to disequilibrium. Authorities attempt to control the money supply by manipulating interest rates, yet institutions are constantly innovating (that is, developing new methods of credit), which undermines those attempts. Asset prices are fundamentally determined by the expected future revenues generated and the assumed risk of that return. However, there is a feedback loop involved. As the boom continues, asset prices (be they equities, securities, real estate, etc.) will rise, increasing the demand for capital to purchase more assets. Banks have an incentive to increase their leverage -- that is, to increase the supply of credit in the system -- in order to increase profits in this advantageous environment. This new money is pumped into asset markets, driving up their price and, more importantly, the expected future price. This serves to increase demand for credit, validated by rising returns, which encourages further bank lending (the supply of credit) and leverage, further driving up asset prices, in a self-reinforcing cycle. Even poorly performing banks look good in these times (Aiken, Haldane, and Nelson, 2010, p. 12). This also drives the system to what Minsky calls Ponzi financing, when cash flows from operations are insufficient to pay either the principle or the interest on debt – that is, firms are borrowing just to pay the interest on borrowed money (Minsky, 1992, p. 7). The more a financial system leans on Ponzi finance, the more unstable it becomes (Minsky, 1986/2008, p. 232). As the expansion goes on, asset prices continue to rise (seemingly without end), the assessment of risk deteriorates. Positions that seemed nonsensical now become commonplace with the collective “certainty” of rising future expected returns.

And that was certainly the case in the early 2000s. Embodied in the pronouncements of Alan Greenspan, the prevailing view was that large, sophisticated, liberalized financial systems supported both growth (through innovation and new supplies of capital) and stability (by self-correcting). The Minskian view is that liberalized finance can be robust, but contains the seed of fragility. The system suffers from the “paradox of financial instability”: it is at its most fragile when it is at its most successful (Borio, 2011, p. 17). Or, to put it another way, “stability is destabilizing” (Papadimitrou and Wray, 2008, p. xi). From this perspective it is no surprise at all that the Great Moderation evaporated into the Global Financial Crisis. It was a “Minsky Moment”.

Building on the concepts financial instability hypothesis, various scholars (Borio, Furfine, and Lowe, 2001; Borio and Dremann, 2009; Borio, 2011; Aikman, Haldane, and

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7 For Minsky the money supply is less a function of central bank inducements than demand for credit. He rejects the Friedmanite approach that monetary authorities can apply rules that will maintain a stable money supply because finance will always find ways to innovate and create “new money”.

8 Minsky distinguishes this from “hedge financing”, when economic actors can fulfill their obligations through their regular cash flows, and “speculative finance”, when actors are essentially only able to pay the interest not the principle on debt. The more the system sticks to hedge financing the greater its stability.

9 This refers to the point where institutions suddenly have to sell off their assets in order to finance debt. The spreading of such fire sales throughout the system lead to asset prices plummeting, massive defaults, and collapse. Lest we get too enamored with Minsky’s prescience, George Magnus usefully reminds us that Minsky had been predicting just such a moment for two decades prior,(Magnus, 2007, p. 8).
Nelson, 2011) have analyzed how these instabilities produce financial cycles. Financial booms do indeed occur with some regularity. Nor is that always a bad thing. Some credit booms are built on genuine improvements in productive capacity and increase trend GDP growth (Dell’Arricia, 2012, p. 8-9). Credit growth, however, is procyclical, increasing the longer economies are growing, regardless of economic fundamentals. Such credit growth encourages actors to both underestimate risk and even respond inappropriately to risks properly measured (Bario, Furfine, and Lowe, 2001, p. 1). Rising returns and easy credit drive aggressive risk-taking during an upswing. More importantly, it creates incentives for institutions to mimic each other, leveraging up and seeking higher profits or facing the condemnation of shareholders for excessive caution in a booming market. As Citigroup’s CEO Charles Prince pithily put it to the Financial Times in July 2007, “As long as the music is playing, you’ve got to get up and dance”.

Neoliberals assumed that market competition would produce competing risk assessment that would be appropriately punished or rewarded by returns in the market. In practice, risk evaluation tends to synchronize, validated by the market boom (Aikman, Haldane, ad Nelson, 2009, p. 3). Actions rational for individual banks thus become systemically destabilizing. In the context of the GFC, no one picked this up. Regulatory authorities focused on the prudential regulation of individual institutions; monetary authorities on maintaining prices stability over a short-term (two year) time horizon (Borio, 2011, p. 6). And the bubble was allowed to grow until it burst with devastating results.

In contrast to the debt-driven growth school, as Kindleberger and others document, manias, panics, and crashes are “hardy perennials” that long predate neoliberalism (Bordo, 2008; Jorda, et al., 2011). Conceived as such, each crash is a discrete event, unique in its manifestation of human folly. In contrast, Minsky’s financial instability hypothesis is embedded in the systemic traits with emphasis on the dangers of liberalized finance. Financial cycle analysis builds on Minsky to demonstrate that those instabilities emerge with some regularity and can be tracked as such, just as output rises and falls in a regular (if not wholly predictable) cycle. While there is no consensus definition of a financial cycle (Borio, 2012, p. 2), it is purported to follow an undulating wave pattern similar to the business cycle, with the upswing indicated by periods of rapid credit growth (Dell’Arricia, et al., 2012, p. 5). But it is not just the financial side of the business cycle; credit dynamics are distinct from GDP dynamics (Aiken, Haldane, and Nelson, 2010, p. 14). Business cycles fluctuate over the short-term, with the average business cycle lasting from six quarters to eight years. Financial cycles are more of a medium term phenomenon, running anywhere from 10-20 years (Drehmann, Borio, and Tsatsaronis, 2012, p. 19). Its precise timing may be unpredictable, but it manifests with well-defined and, more

10 Looking at developed and developing countries, they estimate an increase of +2.3% during credit booms.
11 Borio (2011) and Aikman, Haldane and Nelson (2010) characterize risk as having both a time dimension (How does the assessment of risk change in any given period?) and a cross-sectional dimension (How are the risks of individual banks correlated with all other banks?).
12 They not the constraint long ago identified by Lord Keynes: for bankers it is better to fail conventionally than to succeed unconventionally. (p. 6)
13 By analogy, the Kindleberger version of the FIH is studying how car accidents occur. The Minskian version is akin to looking at how rush hour traffic jams lead to car accidents occurring.
Importantly, empirically validated regularity (Aikmen, Haldane, and Nelson, 2010, p. 21). Financial cycles occur in all sorts of economies – those at different levels of economic development (Dell’Ariccia, 2012), pursuing different models of political economy (Drehmann, Borio, and Tsatsaronis, 20012, see especially Graph 2 on p. 16), or even operating under different monetary regimes (Aikman, Haldane, and Nelson, 2010, see Chart 19 on p. 28). That is, financial cycles are not the result of neoliberalism. However, the amplitude, length, and potential economic disruption of financial cycles have all increased as a result of liberalization (Drehmann, Borio and Tsatsaronis, 2012, p. 2; Dell’Arricia, 2012, p. 13). The stop-go economic policies of the 1960-70s put a brake on credit growth, as did the need to jack up interest rates to combat inflation. Victory over inflation removed the need for high interest rates. Combined with liberalization of financial markets, the credit system became more elastic (Drehmann, Borio, and Tsatsaronis, 2012, p. 21). Neoliberalism did not create financial cycles, but it made them a bigger problem. The GFC is thus best understood as the collapse of a major financial cycle, one which showed that even mature, sophisticated financial markets could evaporate under stress (Borio, 2011, p. 10).

Is there empirical evidence that the GFC was the collapse of a credit cycle? The very scholars that provided the conceptual analysis of credit cycles, most notably economists working out of the Bank for International Settlements and Bank of England,14 have also prudence substantial empirical support for the GFC being the collapse of a rather large financial cycle. Figure 6, taken from Borio (2012, p. 3) show the trends of the business and financial cycles for the US from 1970-2011. From this we can see the much greater amplitudes of the financial cycle (blue line) compared to the business cycle. At the same time, the recessions of the mid-1970s (pre-liberalization), late-1980s, and 2000s were all preceded by upswings in the credit cycle, the last one being quite substantial. (For a primer on the methodology of identifying credit booms, see Mendoza and Perrones, 2008.) Comparing the US against UK data (Figure 7) shows a very similar pattern. On these graphs the narrow black bars indicate financial crisis, which correspond consistently with the upswing of the financial cycle. Figure 8 uses recently released data from the Bank of International Settlements on total private credit relative to GDP for the US to show how much more rapidly credit has grown since liberalization began in the early 1980s.15 Here again we can see an upswing in credit growth – particularly large in the 2000s -- prior to recession in the late-1980s and after 2007. Dembiermont, Drehmann, and Muksakunratana (2013) use the same database to construct Figure 9, which compares similar credit growth with other advanced economies. Note that the peaks in credit for the UK exceeded the US in both recessions, and that the largest burst of credit came in Ireland starting in 1999. While there is not yet consensus on the most appropriate measures of the financial cycle, Borio makes a strong case that it is best indicated by the joint positive deviation of credit to GDP and rising asset prices, particularly houses, as the best empirical indicators, traits clearly indicated in the US prior to

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14 Claudio Borio is representative of this view within the BIS; Andrew Haldane in the BoE.
15 This is a composite measure using bank and non-bank supplies of credit. See Dembiermont, Drehmann, and Muksakunratana (2013) for details.
2007 (Borio, 2011, p. 18). Taken together these data serve to validate: (a) the connection between credit growth and economic downturns; (b) that larger upswings lead to greater crashes and deeper recessions; and (c) that the amplitude of financial cycle swings has increased since the liberalization of financial markets in both countries starting in the early 1980s.

Now we have two competing explanations of the 2008 crash, both of which base their arguments on the bubbles of debt that developed in liberalized financial markets. The debt-driven growth hypothesis is that failures in the productive sector under neoliberalism drove down corporate profits and consumer spending, both of which were artificially inflated by driving up private debt. The fundamental causes of the crisis were microeconomic, connected to declining productivity squeezing profits. Private debt, ratcheting ever upward, was used to mask this problem for decades. By the end that private debt ratchet was obvious, marking the end of an (economically if not politically) exhausted neoliberal growth model. The GFC was the last, desperate throws of neoliberalism. It cannot be saved; a radical alternative is needed. Lacking political will or a clearly articulated alternative, the Anglo-American polities will stumble along indefinitely, relegated to extended stagnation. As outlined above, however, the evidence supporting this hypothesis is not particularly robust for understanding the dynamics of the entire period.

For the financial instability hypothesis the crisis was less about an exhausted model of growth and more about the extreme damage that can be wrought when a credit cycle gets out of control. The fundamental causes in this model are macroeconomic, imposing a financial weight on the productive economy (Borio, 2011, p. 22). If the procyclicality of the financial cycle creates destabilizing tendencies, then perhaps policies can be implemented to prevent speculative credit build-ups, stabilize the financial structure over the medium-term, and again return these economies to growth within the framework of a neoliberal economy. The questions that remain are whether we should try and how this might be accomplished.  

A NEW OR REFORMED MODEL?

All of this leads to the question of “…whether this [neoliberal] growth model can be repaired and relaunched after some minor modifications, whether it needs a radical redesign, or whether a quite different growth model is required” (Gamble, 2011, p. 39). It is worth recalling the last period of transition. The Keynesian welfare state (KWS) governed development from the end of the Second World War into the 1970s. The KWS went beyond countercyclical demand management to include the expansion of the welfare state, a political commitment to full employment, the nationalization of key industries, a semi-corporatist structure of trade union relations, and a more interventionist state. For thirty years – les trente glorieuses as the French

16 In fairness, many of the scholars associated with this perspective, most certainly Human Minsky, would not approve. Minsky is clearly opposed to the initial neoliberal policies of the Reagan Administration. The reform proposals he lays out in the final chapter of Stabilizing and Unstable Economy advocate for Big Government (his caps) and a restrained, deliberated financial sector. Perry and Lewis (2012, pp. 94-96) nevertheless classify the FIH as a neoclassical approach.
call them -- this system worked well, delivering unprecedented rates of growth and a rapid rise in standards of living. (Of course, as Britain and America grew, their competitors grew even faster. The Keynesian decades were a period of relative economic decline for both Britain and America, a point that was more relevant in British politics.) For the average person this also meant that their personal economic fortunes were increasingly determined by the political allocation of resources. The state joined the market as the font of prosperity. This model succeeded as long as economies ran at high speed, creating plentiful resources to be shared by all. The challenges of the seventies revealed the political flaw at the heart of the Keynesian model. Lord Keynes’ admonition was for true countercyclical spending -- increased during downturns, decreased during booms so as to maintain a long-term balance. Democratically elected politicians found this exceedingly hard to do. Showering voters with new programs and benefits was one thing; clawing back those benefits from citizens who could punish you in the voting booth proved much less appealing. The result was a spending ratchet, driving public spending ever upward. Problems were avoided until the postwar boom slowed in the late 1960s, battered even further with the oil crises and inflationary pressures of the 1970s. Governments now had to address rising distributional demands with reduced resources. Politics become zero-sum; democracies “ungovernable”. Attempts at Keynesian reflation, based on a Phillips Curve trade-off between inflation and unemployment, led only to more inflation and rising deficits. Inflation increased wage demands, which outpaced productivity gains, undermining competitiveness and profitability. One alternative was a wages policy, combatting inflation through the coordinated wage restraint. Attempts in the UK to assert authority over (the Heath Government) or negotiate with (the Wilson Government) the unions to control wage demands came to naught. The politics of the seventies can thus be best understood as attempt by a series of political leaders to either use government control or negotiation among interest groups to resolve these issues. As the economic crisis dragged on, confidence in the growth model waned. Leaders turned to monetarism and the market, absolving themselves of responsibility for distributional decisions (Krippner, 2011). The result was Thatcher, Reagan, and the era of neoliberalism.

Because of various political, institutional, and economic limitations, Britain and America were unable to resolve the crisis of 1970s within the Keynesian framework. But that is not to say that there was no solution, that the model was so inherently flawed that it could not possibly work. That solution was neo-corporatism. These systems favored an intimate structure of tripartite negotiations facilitated by strong (national) labor unions and employers associations working cooperatively with the government as “social partners” to create a process of negotiated economic change (Katzenstein, 1985). As the Anglo-American economies embraced the free market, many continental European and Scandinavian economies transformed rather than abandoned the components of the KWS. The pressures wrought by globalization have pushed these states to liberalize their economies compared to the past (Casey, 2009), but it is still fair to note a distinction between liberal market and organized market capitalisms (Hall and Soskice, 17). Even this is something of a misnomer. Liberal economies discarded the tools of direct economic intervention, but the major components of the welfare state itself have remained well and truly entrenched in all of these states.
2002). As such a more accurate interpretation of the seventies is that the KWS was not fatally flawed in an absolute sense, but that the political systems, social structures, and economic institutions of the Anglo-American economies were not especially well suited to pursuing the neo-corporatist variant of the KWS and hence adopted policies better suited for their contexts. The choice was contingent, albeit within the constraints of the existing national context.

Is the optimal choice now to abandon the neoliberal model and start constructing the edifice of some alternative? Advocates of the debt-driven growth hypothesis certainly think so. Beyond the questionable empirical validity of that analysis, there are other reasons to think not. For one, the argument against neoliberalism is based on a false (or oversimplified) premise: that neoliberalism did not work. Andrew Gamble – hardly an apologist for the free market – put it succinctly, “The financial growth model adopted in the 1980s, whose main drivers were financial services, retail, property and construction in the private sector, and education, health and universities in the public sector achieved remarkable success for the UK economy in the 1990s and up to 2007” (Gamble, 2011, p. 39, emphasis added). British relative per capita GDP, which had fallen steadily during the Keynesian years, reversed course and rose in the neoliberal era (see Figure 10). As noted in Table 2, productivity in the Anglo-American economies rose relative to their major competitors. If we look at the figures for median household income Figure 11, the pattern was one of stagnation in the 1970s, substantial improvement in the 1980s and 1990s, a slowdown after 2000 and a sharp decline after the GFC.18

For critics the most pernicious aspect of neoliberalism is that it is the purported cause of rising inequality by reducing controls on product and labor markets, opening up international markets, and abandoning Keynesian redistribution. The result was stagnant wages and increasing job insecurity for those at the bottom. The income spreads between the upper and lower deciles expanded, reaching 10 to 1 in the UK and 14 to 1 in the US (OECD, 2011, p. 22). Particularly in the United States where the rising cost of health care and higher education fell on individuals, families went into to debt to maintain their current consumption. Thus neoliberalism and financialization are closely connected to inequality, although there is some disagreement as to whether financialization caused inequality (Lazonick, 2010) or inequality caused financialization (Saith, 2011). Either way, as the Occupy Wall Street Movement puts it, the system must be transformed to the benefit the 99% rather than the 1%.

That neoliberalism is the primary explanation for inequality is a tenuous proposition. As elaborated in a major OCED report on the subject (OECD, 2011), the causes of rising inequality are myriad. The wages of unskilled workers have been driven down by the addition of several hundred million laborers in China, India, and elsewhere into the global workforce. Technological developments have served to displace unskilled labor (automated manufacturing) and increase the economic returns for skilled labor and those with higher education. Globalization and economic integration increases pressures to control costs, including wages. Across the Western world, single family households have proliferated, reducing the number of wage earners. This is not to say that there is no connection between neoliberalism to inequality. The elimination of

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18 It fell about 8% from 2007-2011.
labor market regulations and the weakening of the power of organized labor have served to suppress wages. And there is a link to financialization; more activity and profits in the financial sector means a growth in aggregate capital gains, which tend to accrue more to those at the top of the income ladder. The point is that neoliberal policies are only one of the driving forces of rising inequality. The fact that inequality has been rising across almost all major developed economies, not just the Anglo-American states, further suggest that other larger socio-economic trends are more significant. Indeed, the sharpest rise in inequality since the mid-1980s was seen in social democratic Sweden, although it remains a fairly egalitarian society (OECD, 2012, p. 24, see Figure 1). A more detailed study by Roine and Waldenström (2008) showed that income distributions across developed countries largely moved in the same pattern over the last century, seeing the greatest declines in the first half (before welfare states were solidly established), moderate improvement in the postwar period, and increases across the board since the 1980s (see Figure 12 on p. 38). They also found that the share of income going to the top 1% increased dramatically, especially when capital gains are included. All of this implies that neoliberal policies and financialization played a role in rising inequality in the last three decades, but not nearly in as a direct and straightforward manner as frequently implied.

Critics of neoliberalism see an abject failure. A more measured conclusion is that it is a model that did indeed deliver the economic goods quite successfully for an extended period of time. It certainly is connected to rising inequality, although not as simplistically and directly as often portrayed. While the 2008 crash wiped out many of the gains made by that accrued to the average person in that era, it did not negate that all that preceded it. Neoliberalism can and has produced real growth. It just tends to volatile swings stemming from financial instabilities that eat away at the gains made -- two steps forward, one step back growth pattern. If proper policies are implemented to prevent the financial excesses that led to the GFC, this failing can be corrected without a wholesale revision of the model. It is to those policies that we now turn.

STABILIZING NEOLIBERALISM THROUGH MACROPRUDENTIAL REGULATION

The pre-GFC regulatory and monetary structures failed. Financial market regulators examined risk in terms of the safety of particular financial instruments or the solvency and liquidity of specific institutions. This “microprudential focus” did a poor job of capturing the dynamic and systemic nature of risk. The downturn in the US housing market and the collapse of Lehman Brothers revealed that everyone was holding the same bad cards. Nor could conventional monetary policy control the problem; indeed, it exacerbated it by keeping rates too low for too long, feeding the credit cycle. Monetary authorities saw their primary (indeed, only) task as controlling prices and securing a stable business cycle, not intervening to pop asset price bubbles. While this seems foolish in hindsight, their position was understandable. “Between 2000 and 2007, UK nominal GDP growth exhibited no signs of exuberance, with GDP growth at trend and inflation at target. Over the same period, UK bank’s balance sheets trebled. Using monetary policy to tame credit growth over this period would have come at the expense of a
destabilization of non-financial activity” (Aikman, Haldane, and Nelson, 2011, p.27). The argument above is that the core problem facing the neoliberal growth model is not productive exhaustion. It is a procyclical tendency toward excessive credit creating booms and busts that erode the growth achieved during the expansions. The solution resides in developing countercyclical mechanisms for to restrain the financial cycle. These policies fall under the umbrella term macroprudential financial regulation (or MPR).

Defying a simple definition, macroprudential financial regulation seeks to fill the space between monetary policies and the micro-regulation of specific financial institutions. MPR is fundamentally about monitoring and controlling systemic risks. Systemic financial risk embodies both time-varying and cross-sectional dimensions (Chui, 2011, p. 185; Aikman, Haldane, and Nelson, 2010, p. 21). The time (or cyclical) dimension captures the idea highlighted by Minsky that credit booms lead actors to take greater financial risks. The cross-section dimension relates to how financial institutions can synchronize their assessment of risk, thus making the health of one financial institution dependent on another, potentially correlated across many institutions in the system, undermining its stability. Macroprudential regulation is intended to counter these risks. Much as Keynesians maintain that government should inject spending into the economy so as to boost demand to counter economic downturns and flatten the business cycle, MPR advocates that regulators constrain rising financial cycles – to “lean against the wind” (Elliott, 2011, p. 29) -- before it inflates sufficiently to produce a financial crisis.

Policymakers have an array of policy tools available to pursue, falling into three broad types: (1) those affecting the balance sheets of financial institutions; (2) those affecting the terms and conditions of borrowing; and (3) those that influence market structures (Bank of England, 2011, p. 17). Those affecting firm’s balance sheets are the most commonly discussed as these are to most direct means of dampening the effects of credit cycles (Elliott, 2011, p.20). In the UK (as well as the US) the primary approach has been more balance sheet based (i.e., increasing capital buffers) rather than transaction based (Chui, 2012, p. 191). These include countercyclical capital ratios or time varying liquidity buffers to capture the dynamic movement of risks, or maximum leverage ratios, to put an absolute governor on financial institution’s risk portfolios. Dynamic provision requires banks to reserve more money to cover loan losses during good times. (As the old banking maxim says, “the worst loans are made at the best of times”.

From Dell’Arricia, et al, 2012, p. 17.) Transaction based approaches include changes in the loan to value (LTV) or loan to income (LTI) ratios, especially on houses, to influence the terms of borrowing.19 Similarly, margins on secured lending, such as repurchase agreements (repos) could be subject to regulatory minimums that vary over time (Elliott, 1022, p. 40). Market structures can be influenced by the development of central counterparty clearing houses or other alterations to the design and use of trading venues, including some form of automatic “circuit breakers” (Bank of England, 2011, p. 17).20 The Bank of International Settlements has also tried to address

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19 The US housing boom was facilitated by a slippage of the LTV from the 80% standard (thus requiring a 20% down payment) that ruled in decades past to LTV of 95-97% (Elliott, 2011, p. 19).
20 Circuit breakers to halt automated trading when volumes get too high were implemented on the New York Stock Exchange after the 1987 crash.
the “too big to fail” problem by creating criteria to identify “systemically important financial institutions” (or SIFIs) that would have additional capital requirements placed upon them. All of this indeed entails an enhanced and more invasive regulator structure than existed prior to the GFC. The pros and cons of various instruments and approaches are beyond the scope of this paper, (for a discussion of these issues, see Bank of England, 2011; Elliott, 2011; Kowalik, 2011), but given the negative externalities created by upswings in borrowing, it is warranted for government curb the peaks and troughs in the credit cycle (Aikman, Haldane, and Nelson, p. 27).

The institutional foundations of effective macroprudential policy have already begun to be put in place. At the national and regional levels, the US has granted this responsibility to the Financial Stability Oversight Council within the Treasury; in Britain this is being handled by the Financial Policy Committee within the Bank of England, and Europe has created the European Systemic Risk Board. In 2010 the Basel Committee on Banking Supervision’s Basel III Accords put forward a method for creating countercyclical capital buffers, albeit leaving the specifics in the hands of national regulators (Elliott, 2011, p. 21) and allowing a phase-in period through 2019.21 (For a more detailed elaboration of the mechanisms being developed by various central banks, see Chui, 2012.) International coordination among these bodies is being assisted by the Financial Stability Board in Basel.

The intellectual and institutional framework for MPR is well developed, but it remains work in progress that must address several major barriers to effective implementation and operation. The first and foremost problem is to provide decision-makers with the necessary information (accurately interpreted) so as to allow them to identify and respond to a financial cycle (Borio and Drehmann, 2009, p. 2009). Recognizing bubbles ex ante is easy; seeing them as they occur takes much greater proficiency (Posen, 2011). Excessive credit growth is the best predictor of a financial crisis (Jorda, Schularick, and Taylor, 2011), but not every credit boom ends in a financial crisis (Posen, 2011, p. 463) and it is difficult to tell a “good boom” from a “bad boom” in real time (Dell’Arricia, p. 4). It has yet to be determined which credit and asset aggregates should be tracked. The Basel III countercyclical buffers are premised on credit-to-GDP ratios (Borio, 2011, p. 19). Borio and Drehmann (2009, p. 31) make a case for focusing on the covariance of growing private credit and rising asset prices as the best indicator. Both equities (Borio and Drehmann, 2009, p. 30) and external imbalances (Jorda, et al, 2011) have been found to be rather poor indicators of credit cycles. Financial officials are in some respects starting from scratch on this. It will take time to refine their data and models. Claudio Borio, perhaps the leading advocate for this approach, makes a strong argument to the contrary, suggesting that the data-gathering challenges are not nearly as onerous as sometimes portrayed. It is developing proper judgments about interpretation that is the greater challenge (Borio, 2011, p. 18).

Of course, regulators do not directly control the levers of credit; bankers do. Another significant challenge for MPR is that banks have every incentive to find ways to circumvent new regulations. One of the advantages of a macroprudential over a microprudential approach is that

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21 For details of the Basel III accords, see the BIS Basel II Website (http://www.bis.org/bcbs/basel3.htm)
it does not force regulators to monitor and police specific financial innovations. These transform so quickly that regulation is likely to be either ineffective or stultifying. MPR puts in place safety measures to prevent credit excesses, to secure the system as a whole, but otherwise leaves financial markets to innovate at will. On one level, though, so did the pre-GFC system. The Basel II rules, for example, were intended to ensure that individual banks were sufficiently capitalized. Not foreseen was that major banks would invest heavily in mortgage-backed securities, which were showing strong returns and were given lighter risk weights within the Basel framework (since often issued by government-sponsored entities, like Fannie Mae), thus allowing banks to leverage themselves further and boost profits (see Friedman and Kraus, 2011, and Casey, 2011 for a more thorough discussion). Widespread regulatory arbitrage of capital adequacy requirements served to amplify systemic risks. MPR (including many of the elements of Basel III) differs in that these controls are crafted to adjust to changing credit conditions. Still, addressing systemic risk requires not only vigilance against unintended consequences; it requires having control over the system. This means reining in the shadow banks which, by definition, exists beyond full regulatory controls. Shadow banking declined after the GFC, but has since revived. As macroprudential oversight cannot be effective if significant vehicles of credit exist outside of the regulatory structure, these must be brought into the regulatory framework (Aikman, Haldane, and Nelson, 2010, p. 32)

A third problem is effectively integrating MPR with monetary policy. The GFC illustrated the need for enhanced macroprudential regulation; that much is agreed. There is very little agreement, however, on the lessons of the crisis for monetary policy, either in terms of its contribution to the crisis on the proper monetary response (Borio, 2011, p. 15-16). Monetary officials were reluctant to raise interest rates under otherwise tranquil economic conditions in order to burst a credit bubble, especially as their (false) assumption that it was cheaper to clean up the mess of a bust than pop a bubble (Dell’Arricia, et al., 2012, p. 5). Monetary tools may be too blunt to successfully manage credit cycles, yet still set the basic conditions for credit, asset prices, and yields and, as such, needs to be calibrated with macroprudential policies. The main difference is not so much instruments as policy timeframe. Monetary policy generally works on a two-year policy horizon. Since systemic risk builds more slowly, the time horizon is longer. For the two to work in tandem mainly requires integrating medium-term data and perspectives into the monetary policy framework. MPR is not a replacement for monetary policy as a mechanism for macroeconomic control; it is a much needed complement to it.

Perhaps the biggest challenge to the successful implementation of MPR is political. Keynesianism’s mortal flaw, after all, was political not economic; keeping the fiscal balance over the long term proved too much for democratic politicians. Economic theory and political expediency nudged them toward the monetarist cure and squeezing inflation out of the economy regardless of the cost in terms of output and employment became something of a proud form of masochism (or sadism, depending on your perspective): “there is no alternative”. Long-term success in the fight against inflation led to a general shift in responsibility for monetary policy, ascending to pride of place over fiscal policy in managing the macroeconomy, to unelected and
politically insulated central bankers, epitomized by Gordon Brown handing over interest rates to
the Bank of England in 1997. The Great Moderation reinforced this approach. Yet the centrality
of constraining inflation, explicitly stated for the European Central Bank, made it difficult for
monetary authorities to incorporate credit and asset booms into their decisions, especially when
the business cycle remained flat. The result was an “unfinished recession” – policies to counter a
business slump in 2001-03\(^{22}\) came at the cost of a credit build-up, financial crisis, and much
larger recession in 2007-08 (Drehmann, Borio, and Tsatsaronis, 2012, p. 2).\(^{23}\)

Might MPR face a similar political challenge? In practice is it likely to crumble under
political pressures or function more like monetary policy in late 1970s and early 1980s, when it
pushed “tough love”? In its favor is the clear recognition of a problem; finance cannot just be
restarted in the same form as a decade ago and expect to avoid another catastrophe. The
macroprudential approach is favored by regulators and politicians alike as being a fairly market-
conforming method of regulating finance (Elliott, 2011, p. 28). Going against it is that the
financial sector might push back. In order to be effective it will have to put real restrictions on
the financial sector that will cut into real short-term profits for the sake of long-term stability.
Was the global financial crisis sufficiently traumatic to the financial sector that an “enlightened
self-interest” might guide their approach? Even if not, will political leaders and regulators be
sufficiently resistant to political pressure to make MPR effective? Monetary authorities were able
to withstand substantial political pressures on the financial sector that will cut into real short-term profits for the sake of long-term stability.

Aikman, Haldane and Nelson (2010, p. 33) note that the state of macroprudential policy
is similar to that of monetary policy immediately after the Second World War. Financial officials
need to refine their data and models, and much of this will be conducted by trial and error.
Nevertheless, it offers the best method for managing the problem of credit cycles that undermine
long-term growth and stabilizing the neoliberal growth model.

A final note of caution is in order, though. MPR is a policy framework for stabilization,
not recovery – a way to avoid digging a hole in the first place, not how to get out of one. How
best to achieve recovery is a crucial and contested point, but one that cannot be taken up here. Of
relevance, though, is how we understand the nature of our current calamities. Colin Hay has
argued that the problem is being framed as a “crisis of debt” (really meaning public debt) when it
really is a “crisis of growth” (Hay, 2013). On one level this is correct. Recessions are crises of
growth; but that is merely a truism. Nor is the problem solely one of public debt. Excessive
private debt remains a drag on the economy, even more in the UK than in the US. This is a
“balance sheet recession” (Borio, 2011, p. 21-22), one caused by excessive debts in the public
and private (both corporate and consumer) sectors, rather than simply a decline in aggregate

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\(^{22}\) Raising interest rates earlier might alone have solved the problem as higher interest rates may have drawn in
foreign capital and boosted asset prices even further (Dell’Arricia, et al., 2012, p. 20).

\(^{23}\) There is an inherent tension captured succinctly by Colin Hay: “retail inflation bad; house price inflation good”
demand. Straightforward Keynesian stimulus may have little impact, however, because the marginal propensity to consume is low. Extra income might just as easily be used to reduce debt as increase consumption. Equally shifting private sector debt to the government may do little to improve systemic health and raises the potential of sovereign debt crises. Only by reducing the amount of debt in the system is stable growth likely to return. In that sense Hay’s focus is misplaced; this is a crisis of debt. Unfortunately, there seems no easy, ready solution to do that. Reducing debt is likely to be a long, hard slog. This is perhaps the strongest argument in favor of MPR: recognizing just how damaging credit cycles can be shows how vital it is not to get into that hole in the first place.
### Table 1: Changes in Real per Capita GDP

Average Annual Percentage Change

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<thead>
<tr>
<th></th>
<th>United Kingdom</th>
<th>West Europe</th>
<th>United States</th>
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<tbody>
<tr>
<td>1890-1914</td>
<td>0.89</td>
<td>1.08</td>
<td>1.63</td>
</tr>
<tr>
<td>1920-1929</td>
<td>1.32</td>
<td>3.35</td>
<td>2.05</td>
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<tr>
<td>1948-1973</td>
<td>2.35</td>
<td>4.28</td>
<td>2.49</td>
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<tr>
<td>1981-2007</td>
<td>2.49</td>
<td>1.78</td>
<td>2.01</td>
</tr>
</tbody>
</table>

Source: Angus Maddison Historical Database (Accessed March 2013)
[http://www.ggdc.net/maddison/maddison-project/home.htm](http://www.ggdc.net/maddison/maddison-project/home.htm)

### Table 2: Changes in Productivity, 1959-2007

**Real GDP per Person (Average Percentage Change)**

<table>
<thead>
<tr>
<th></th>
<th>France</th>
<th>Germany</th>
<th>United Kingdom</th>
<th>United States</th>
</tr>
</thead>
<tbody>
<tr>
<td>1959-73</td>
<td>4.91</td>
<td>4.24</td>
<td>2.77</td>
<td>2.25</td>
</tr>
<tr>
<td>1974-79</td>
<td>2.20</td>
<td>2.66</td>
<td>1.33</td>
<td>0.60</td>
</tr>
<tr>
<td>1981-88</td>
<td>1.83</td>
<td>1.31</td>
<td>2.26</td>
<td>1.30</td>
</tr>
<tr>
<td>1992-07</td>
<td>1.16</td>
<td>1.33</td>
<td>2.26</td>
<td>1.87</td>
</tr>
</tbody>
</table>

**Real GDP per Hour Worked (Average Percentage Change)**

<table>
<thead>
<tr>
<th></th>
<th>France</th>
<th>Germany</th>
<th>United Kingdom</th>
<th>United States</th>
</tr>
</thead>
<tbody>
<tr>
<td>1959-73</td>
<td>5.54</td>
<td>5.39</td>
<td>3.52</td>
<td>2.52</td>
</tr>
<tr>
<td>1974-79</td>
<td>3.56</td>
<td>3.59</td>
<td>2.61</td>
<td>1.10</td>
</tr>
<tr>
<td>1980-88</td>
<td>2.76</td>
<td>2.36</td>
<td>2.58</td>
<td>1.36</td>
</tr>
<tr>
<td>1992-07</td>
<td>1.76</td>
<td>1.96</td>
<td>2.56</td>
<td>1.84</td>
</tr>
</tbody>
</table>

Source: Groningen Growth and Development Centre/Conference Board Total Economy Database (accessed March 2013)
[http://www.rug.nl/research/ggdc/](http://www.rug.nl/research/ggdc/)
FIGURES:

Figure 1: Index of US Industrial Capacity Utilization

Figure 2: US Corporate Debt and Non-Financial Corporate Profit

SOURCE: Federal Reserve Board

SOURCE: Federal Reserve Flow of Funds; Bureau of Economic Analysis
Figure 3: US Household Debt Service Ratio and GDP, 1980-2012

Source: Federal Reserve Flow of Funds Data; BEA
DSR = Ratio of debt service payments to disposable income

Figure 4: UK Housing Equity Withdrawal and GDP, 1970-2011

Figure 5: US Mortgage Equity Withdrawal and Consumption, 1963-2007

Source: Bivens (2008). Consumption and GDP data from the Bureau of Economic Analysis (BEA). Mortgage equity withdrawals are measured as the year-to-year change in mortgage debt (from the Federal Reserve Flow of Funds) minus 70% of residential investment spending (from the BEA).

Figure 6: The US Business and Financial Cycles, 1970-2011

Source: Borio, 2012, p. 3.
Figure 7: Business and Financial Cycles in the US and UK, 1970-2011

Orange and green bars indicate peaks and troughs of the financial cycle as measured by the combined behaviour of the component series (credit, the credit to GDP ratio and house prices) using the turning-point method. The blue line traces the financial cycle measured as the average of the medium-term cycle in the component series using frequency based filters. Black vertical lines indicate the starting point for banking crises, which in some cases (United Kingdom 1976 and United States 2007) are hardly visible as they coincide with a peak in the cycle.

Figure 8: US Total Private Credit to GDP

SOURCE: BEA, BIS Long Series on Total Credit Database
http://www.bis.org/statistics/credtopriv.htm
Figure 9: The Growth of Total Private Credit in Advanced Economies, 1950-2012

Figure 10: UK per capita GDP Compared to Germany and France, 1960-2011

Figure 11: US Median Household Income

Source: US Census Bureau
REFERENCES

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