

FINANCIALIZATION

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Submitted to appear in *The Oxford Handbook of Global Studies*
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INTRODUCTION

The term “financialization” has become part of the popular lexicon in recent years. This is especially the case since the Global Financial Crisis of 2008-9 (GFC). Definitions and understandings, however, are often imprecise, confused, and mired in emotionally-charged references to the expanding wealth and power of the financial sector. We prefer to use the term more neutrally to refer to the increased role that the financial sector has been playing in economies over time. Strong financial sectors are necessary to support well-functioning economies. Over the last four decades, the financial sector has facilitated economic growth on an unprecedented scale. At the same, economic distortions caused by malfunctioning financial sectors have imposed enormous costs.

In this paper, we discuss how the scope of activities performed by the financial sector has been expanding in recent decades in ways that are linked to globalization more generally. Following on from this, we analyze how some of this expansion has contributed to growing economic instability and turbulence. Finally, we outline four specific areas that must be addressed if the financial sector is to carry out its functions properly. Normative approaches in political economy, for example, have been emphasizing the importance of ideas in influencing the performance of economies, economic sectors, and organizations. Denzau and North’s (1994) work on Shared Mental Models (SMMs) provides a useful conceptual framework for helping us analyze the underlying rationale for contemporary trends in financialization as well as how faulty ideas have contributed to financial instability.

WHAT IS FINANCIALIZATION?

The financial sector has traditionally been responsible for performing a range of essential functions generally associated with deposit-taking and lending by banks for productive uses. Additionally, the financial sector plays a vital role in the management and transfer of liabilities and assets through the trading of stocks, bonds, securities, insurance and credit intermediation. According to economist John Kay (2015) “[w]e need a finance sector to manage our payments, finance our housing stock, restore our infrastructure, fund our retirement and support new business” (p. 283.)

The growth in the financial sector is in part due to the development of more efficient banking systems, increased international capital flows, and greater investment activity. Indeed, these developments have helped contribute substantially to higher economic growth in many developing countries. At the same time, however, they have exposed

countries with poorly structured financial regulation and supervision regimes to increased turbulence and instability.

In advanced economies the exponential growth in financialization in recent decades has been due, in considerable part, to increases in securities trading across the globe. Indeed, securities trading generates most of the revenue within the finance industry. The global securities market involves the trading of negotiable financial products that represent the value of debts and equities on other real and paper assets. The explosion in the derivatives market over the last thirty years is particularly noteworthy. Simply put, a derivative is a security whose value is based on other underlying assets such as home market values, stock indexes, commodities, bonds and so forth. Most of these financial instruments, such as asset-backed securities, provide vital services that, when designed and used sensibly, allow corporations and investors to hedge risks more efficiently. In a number of cases, however, this expansion went too far; such derivative contracts expanded to a level roughly three times the value of the underlying assets (see Kay 2015, p. 2.)

Given the above, it is not surprising that the term “financialization” has often been used pejoratively to refer to a country’s growing reliance (some say over-reliance) on the financial sector vis-a-vis other ‘traditional’ sectors of the economy (i.e. manufacturing and agriculture) as the driver of economic growth in recent decades. In the United States, for example, manufacturing contributes less than a quarter of the country's eighteen and a half trillion-dollar GDP; agricultural goods (and related products) contribute less than 4 percent. By way of contrast, the country's service sector contributes over three quarters of the United States' total GDP; financial services alone contribute over 8 percent of total GDP. While there is an ongoing debate over which industries should be included under the broad tent of the financial services sector, generally speaking, the Organization for Economic Cooperation and Development (OECD) suggests that financial services now comprise nearly 20 percent of the total GDP of many of the world’s developed economies. This economic profile is very different from forty years ago when most of an advanced country’s productive wealth was generated from manufacturing and other tangible value-added activities. The growth in the financial sector has contributed to the wealth of many individual investors, pension schemes, and investment funds. Indeed, a new global social class has emerged as a result of new income-creating opportunities that have accompanied an expanding financial sector. At the same time, the decline in manufacturing-based employment that accompanied de-industrialization over the last four and half decades has directly resulted in the systematic decline of the middle class in many nations across the world. Consequently, the income gap between social classes has been widening within many industrial nations.

As we shall see in the following pages, when the financial sector grows beyond its proper scope and function, many of the economic benefits associated with increased financialization are often privatized, while many of the substantial costs tend to be socialized. When viewed from this perspective, we may consider a number of the developed industrial countries to be “over-financialized.” That said, the size and scope of the financial sector tends to vary widely from one country to the next. In many

developing countries, for example, the financial sector tends to be “underdeveloped” and, therefore, limited in its ability to provide many of the essential functions that contribute to productive growth. Robust financial sectors are instrumental in supporting a process traditionally known as “financial deepening,” which has proven to be especially critical during a country’s early stages of development. Indeed, developing countries with more robust financial systems have had greater success in closing the income gap vis-à-vis wealthier nations. Therefore, when attempting to conduct any serious and objective appraisal of the appropriate size and scope of the financial sector, one must proceed using well-defined criteria that takes into account the overall economic profile of a given country.

THE ESSENTIAL FUNCTIONS PERFORMED BY THE FINANCIAL SECTOR

The strength of any capitalist economy depends on its level of productive investment. Money is a key element in this process—it functions as a medium of exchange, a unit of account, and a store of value. A well-developed and robust financial sector is required to facilitate the management and investment of this money. If individuals and corporations were only able to invest their own money, the amount of financial capital available to support productive investment would be extremely limited. The financial system supports economic productivity by facilitating borrowing and lending among institutions and individuals. In addition, the financial system provides trade credits which enable buyers (i.e. such as securities traders) to make purchases now and pay later.

An integral part of the financial sector involves the banking system. The banking system plays a vital role in ensuring that depositors have access to their liquid assets at short notice without incurring penalties while, at the same time, facilitating the practice of “lending long” through its commitment guarantees of funds. This form of maturity transformation is essential to the operation of any modern economy and, under most circumstances, tends to work very well. This is because under normal economic circumstances, only a fraction of depositors will demand their money at any given time. Accordingly, a substantial portion of a bank’s deposits can be lent-out to finance productive activity.

During periods of financial turbulence, however, depositor fears can lead to capricious bank runs. In such instances, a given bank’s short-term liquidity stores—which it is supposed to make available to their depositors on demand—can quickly disappear. Consequently, in modern economies, governments and central banks generally play an important role in ensuring the soundness of the banking system through deposit guarantees and the operations that they perform as “lenders of last resort.” However, at the same time, such guarantees can create incentives (known as moral hazards) that may encourage banks to engage in high-risk lending practices. This is because such guarantees tend to shield banks from potential losses associated with high risk investment activities should they go bad, while allowing them to keep the profits when their investments are successful. Government regulation is generally required, therefore, to temper moral hazard resulting from such explicit or implicit guarantees.

With the end of World War II and the US-led effort to support the reconstruction of Europe and Japan, financial systems became increasingly globalized. International economic development activities were principally focused on the expansion of global trade and productive growth. An international financing system was required to support these efforts. The Bretton Woods international monetary system and development-oriented international financial institutions (known popularly as IFIs), such as the International Monetary Fund (IMF) and the World Bank (WB), have contributed greatly to what we now know as modern global finance. Let us explore the connection between globalization and financialization in a little more depth.

FINANCIALIZATION & GLOBALIZATION

In a sense, according to Kay (2015, p. 13), “[f]inance has always been global” because it has been historically interconnected with the rise of global trade. Since the 1950s, in particular, the world has seen vast reductions in the costs of global transportation and communication. Innovations in shipping and, more recently, the ability to transmit vast amounts of data in the blink of an eye through revolutionary developments like fiber optic-based communication, have contributed greatly to this process. Indeed, technological breakthroughs in high-speed trading computers over the last quarter of a century have enabled global investors to conduct billion-dollar transactions across the globe instantaneously at any time. Political economist Eric Helleiner (1994) concisely summarizes the connection between economic globalization and financialization:

‘Economic globalization’ is one of the more popular catch-phrases used to describe momentous changes in our era. And yet, as usual with such phrases, its precise meaning and significance remain poorly understood and even hotly disputed among academic specialists. Nowhere is this more true than with respect to the sector of the world economy where ‘globalization’ is most developed: *the financial sector* [emphasis added.] For most people, the emergence of a twenty-four hour, globally integrated financial marketplace in recent years has been a phenomenon difficult to comprehend. International financial issues are, after all, widely perceived as arcane and highly technical. This perception is only reinforced by the fact that the new enormous movements of money across borders are seemingly invisible, taking place largely in the form of rapid blips on computer screens distributed around the planet (p. 295.)

The exponential growth in financial transactions taking place daily, coupled with the major expansion of trade across the globe over the last forty years, make it appear as though national boundaries are disappearing. In fact, many have been claiming that global financialization has diminished the capacity of governments to exercise national control over economic policymaking. While such claims overstate reality, there can be no doubt that the rise of global financial markets has resulted in increased economic interdependence among nations. Simultaneous movements in the value of the various stock indexes following any given international financial event suggest the extent to which national economies across the globe are interconnected.

In principle, the economic and financial interdependencies that have developed between nations would be expected to create strong incentives for their governments to engage in some kind of international coordination of their policies. Some progress has been made on this front. For example, “beggar thy neighbor” policies of competitive devaluations that exacerbated the Great Depression of the 1930s are now much less common. Most national governments, nonetheless, retain a high degree of formal autonomy in domestic economic policymaking. The recent “Brexit” referendum, along with the United Kingdom’s long-standing (and likely wise) decision to remain outside the Euro, provide vivid examples.

While the threat of investment flight has inspired governments to adopt monetary and fiscal discipline in some instances, generally speaking, nation-states are not passive victims of the “ruthless” and “unstoppable” forces of global financialization as is often argued. In fact, nation-states are often active and willing participants. After all, nation-state actors and sovereign governments make national public policies. Consequently, domestic political pressure from interest groups, rather than international financial movements, often influenced when, and to what degree, national governments choose to engage in the global economy.

Indeed, global financialization has simultaneously made it easier for governments to borrow large sums of foreign capital from international credit markets. For example, increases in international flows, made possible through global financialization, initially allowed countries like Greece to run large national fiscal deficits while allowing them to avoid painfully high interest rates. Thus, for a time, the Greek government borrowed extensively from these international financial markets to support expensive domestic social policies while not having to internalize many of the costs. In fact, it was only with the onset of the crisis in 2010 that international financial markets began to limit the options of the Greek government (see Willett et al., 2014.)

As the costs of many arcane government regulations became more apparent, and beliefs in the efficiency of the free market began to spread throughout the economics profession, governments in numerous countries began to adopt a series of financial deregulation and liberalization measures. Let us look at how this process unfolded historically in a little more detail.

THE RISE OF GLOBAL FINANCIALIZATION IN THE 1980s AND 1990s

While the process of global financialization began gaining momentum in the advanced economies in the early 1980s, an increasing number of emerging market countries would later follow. In the United States leading figures, such as Treasury Secretary (and former CEO of Merrill Lynch) Donald Regan, helped bolster financialization in the early 1980s by spearheading an aggressive financial liberalization agenda. This initiative was directed, in part, at the deregulation of the Savings and Loans industry (S & L). Toward this end, Donald Regan, and others in the Reagan administration worked with sympathizers in the US Congress to begin systematically removing legal barriers that

kept firms from taking advantage of historic investment opportunities in the securities markets.

Similar developments were taking place in Britain. Keen to take full advantage of these new global financial trends, Prime Minister Margaret Thatcher undertook a series of reforms in the mid-1980s aimed at addressing systemic problems that underlay her country's underperforming financial sector. Popularly known as London's "Big Bang," Thatcher's reform effort involved a comprehensive upgrade of London's fledgling computerized trading system as well as the adoption of new competitive policies governing commissions and fees. Big Bang would usher in a new era of securities trading. The historic financial deregulation and liberalization initiatives undertaken by Thatcher and Reagan in the early 1980s in their respective countries help fuel some of the most spectacular "bull markets" that the world had ever seen. By the latter part of the 1980s, a speculative bubble began developing in both countries. Motivated by fears that the securities markets were overvalued, droves of investors began dumping their assets, there by contributing to a massive financial crash in the Fall of 1987.

In the latter part of the 1990s, American President Bill Clinton's administration greatly expanded the deregulation drive that Ronald Reagan had initiated a decade earlier. The most important among these was the enactment of the Gramm-Leach-Bliley Act (aka The Financial Services Modernization Act of 1999.) President Clinton signed into law a bill that largely reversed the historic Glass-Steagall Act of 1933 that sharply separated the roles of commercial banks from investment banks. The 1999 act helped inspire one of the most spectacular securities booms in history. Ten years later, however, many blamed the act for having contributed to the most horrific economic catastrophe since the Great Depression.

FINANCIALIZATION & GLOBAL TURBULENCE IN THE 21st CENTURY

Claims that contemporary global financialization has increased economic instability and turbulence have been fueled by a number of regional financial crises that have occurred over the past two decades, including: Mexico in 1994, East Asia in 1997, Russia in 1998, and Argentina in 1999. More recently, the Euro Crisis has severely affected a number of the European economies (see Roy, et. al., 2007; Steger & Roy, 2010; Roy and Willett, 2013). These claims gained particular salience in the aftermath of the Global Financial Crisis of 2008-9 (GFC.) Let us look at the GFC in some specific detail.

The spark that appeared to ignite the GFC was the United States' subprime mortgage crisis of 2008. From there, the crisis spread quickly to other financial markets in the US and then to markets abroad. European countries that had invested heavily in US mortgage-backed securities were especially vulnerable. Almost half of US mortgage-related securities were held by the largest European banks and hedge funds, which with the blessing of regulators, were negligently under-capitalized.

Recessions in advanced economies quickly followed. As conditions worsened, financial markets began to freeze, liquidity began drying up, trade slowed, and stock market values

plummeted. Even countries that appeared to escape initial direct financial losses, later suffered from capital flight as droves of investors began redirecting their money to safe havens. The resulting economic fallout ended up costing taxpayers, investors, and governments trillions of dollars. All of this however, paled in comparison to the heart-breaking pain experienced by millions of innocent people who lost their jobs, pensions, life savings, homes, and livelihoods.

As discussed above, the seeds of the GFC had been germinating for some time. Mortgage-backed securities, and the distorted housing market on which they were based, were a large source of the problem. In the late 1990s and early 2000s, in particular, borrowing limits were raised and down payment requirements for securing mortgage loans were substantially reduced. In many cases, buyers were able to secure loans with little or even no money down and/or without producing any documentation of their income.

Operating on the false belief that real estate values could only go up (and never down or remain stagnant), some of the world's most respected credit rating agencies, such as Standard and Poor's, overestimated the degree to which mortgage-backed securities could reasonably balance higher risk investments. In a number of cases, credit rating agencies intentionally assigned strong ratings to high risk-investments under pressure from the banks who commissioned them. A number of ethical economists and financial analysts attempted to warn the public and government regulators. Often times however, these alarm bells went largely unheeded by exuberant governments, traders, investors, financial institutions, and the public alike who were unwilling to interfere with the mystical hand of the free and unfettered market.

As long as housing prices (and consequently home equities) continued to rise at substantial rates, the mortgage-backed securities industry thrived. Once housing price increases began to slow, however, things began to turn in the other direction. Many already extended borrowers could not make their mortgage payments, ultimately forcing them to declare bankruptcy or surrender their homes in foreclosure. Shortly thereafter, the entire real estate market collapsed. Mortgage lending titans Fannie May and Freddie Mac teetered on the brink of insolvency. Mortgage-backed derivatives became suspect. Predictably, investors began dumping their assets. Major brokerage houses such as Bear Stearns and insurance giants such as AIG struggled to avoid bankruptcy.¹ The turmoil on Wall Street ultimately found its way down "Main Street." Declining consumer demand for "big ticket" items such as cars and other durable goods led some of America's most prestigious and well-branded companies to lay off large numbers of their workforce.

In the immediate aftermath of the crisis, questions abounded, "What happened?" "Who was to blame?" "What should be done to clean up the mess?" and "Who should pay for it?" Competitive pressures emanating from both within the financial services sector and the wider economy to develop innovative securities products, coupled with poorly designed and executed industry practices and government regulatory processes, were all contributing factors to growing financial instability and turbulence.

Mortgage-backed securities can be useful tools in helping to reduce risks associated with certain investments under conditions when the financial system as a whole is functioning well. However, risks tend to increase substantially when the system is stressed. While many, most notably US Federal Reserve Chairman Alan Greenspan, assumed that a competitive market would automatically generate the requisite incentives for investors to avoid inordinately high-risk behavior, this proved not to be the case. In fact, many financial institutions, who were operating, in part, on inordinate faith in highly flawed risk models, began “levering-up” (Blyth, 2013.) These institutions took on excessive debt positions by employing the use of opaque and exotic financial instruments that were supposed to abate substantial risk.²

TAMING FINANCIALIZATION: FOCUS AREAS FOR WELL-FUNCTIONING FINANCIAL SECTORS

We can, and indeed have, learned much from the painful experiences described above. While it is politically expedient to blame avaricious investors for the entirety of the crisis, the vast analysis governing the origins of the crisis has revealed multiple complex causes. The field of political economy is now awash with studies that could assist our efforts to mitigate future market crises.

Any serious discussion on how to promote well-functioning financial sectors must focus on four areas. *First: Begin with Sound Leadership.* Currently, the industry is in dire need of genuine leadership and direction. *Second, The Decisions and Behavior of Leaders & Participants Must be Guided by Sound Theory.* Ideas and institutions matter to the performance of economies. Therefore, one must consider the pervading ideas driving human decisions and the consequent behavior that occurs within a given industry. Specifically, actors must possess correct, or at least reasonably accurate, ideas about the environments in which they operate. *Third, Cooperation and Communication within an Interdependent Economic System is Essential.* One must consider how the functions and activities of the financial sector affect, and are at the same time affected by, other organizations and individuals within a larger interdependent economic system. Specifically, financial actors must develop an awareness of how the various parts of the economy are interconnected. *Fourth: Sound Regulation and Enforcement is Crucial.* Therefore, one must consider the structural soundness of both national and international regulatory systems. Specifically, we must promote sensible regulation and effective oversight that does not stymie the essential functions performed by the financial sector in facilitating economic growth. To some extent, these four areas may interrelate. Let us examine each of them in more detail.

First: Begin with Sound Leadership. What is the aim of the financial sector? What purpose does it serve? Whom does it serve? The answers to these fundamental questions must be addressed by leaders within the financial sector. As the financial system began to expand its influence beyond its traditional scope of functions, it became less connected with providing services to the real economy. As Kay (2015) argues, the finance industry became less concerned with “the facilitation of payments, the provision of housing, the

management of large construction projects, the needs of the elderly or the nurturing of small businesses.” (p.283.) Instead, he suggests, the financial sector became focused on “[t]he process of financial intermediation” which, he claims, has now “become an end in itself.” (p. 283.) Much of the activity that occurs within the financial service industry today involves trading paper (representing assets and liabilities) back and forth between a relatively small group of financial firms and institutions around the globe (pp. 5-6.) Effective public oversight and private sector leadership are jointly required to re-direct the industry’s focus on the essential functions outlined above. While the most important causes of the crisis were structural, the disgraceful, and in some cases criminal, behavior of a large number of participants in the financial sector contributed to the magnitude of the disaster. Therefore, leaders must improve the aims and culture in their institutions.

Second, The Decisions and Behavior of Leaders & Participants Must be Guided by Sound Theory. Complexities associated with increased global financialization have led to growing uncertainty, making rational prediction extremely difficult. Accordingly, Denzau and North (1994) have suggested that issues of uncertainty, rather than risk, tend to increasingly “characterize choice making” in the modern age (p. 3.) In his recent book, *The End of Alchemy*, Mervyn King (2016), the former governor of the Bank of England, corroborates the claim that we live in a world fraught with radical uncertainty, not just risk, and need to adjust our thinking accordingly. Many mathematically sophisticated risk models were designed in a manner that failed to distinguish factors of risk from factors of uncertainty. In a world characterized by ubiquitous uncertainty, data is not enough; we must know how to interpret it. As W. Edwards Deming (2000) points out, “[u]se of data requires knowledge about the different sources of uncertainty” (p. 100.) Sound theories, he argues, are essential in helping us comprehend situations and problems as well as interpreting data so that we can make better predictions and devise useful solutions.

Denzau and North (1994) emphasized the use of Shared Mental Models (SMMs) for helping us comprehend the importance of ideas in guiding our attempts to navigate political, social, and economic environments characterized by high levels of uncertainty. What are SMMs? How do they shape our understanding of economic environments and, consequently, our best options within them? According to the 2015 World Development Report *Mind, Society, and Behavior* (2015, p. 62), “[m]ental models include categories, concepts, identities, prototypes, stereotypes, causal narratives, and worldviews.” Moreover, “[w]ithout mental models of the world, it would be impossible for people to make most decisions in daily life” or to “develop institutions, solve collective action problems, feel a sense of belonging and solidarity, or even understand one another” (p. 62-3.) The 2015 World Development Report was largely inspired by the work of Denzau and North (1994) who likewise argued that “the performance of economies is a consequence of the incentive structures put into place” that comprises “the institutional framework of the polity and economy” (p. 27.)

Mental Models can be verbal and non-verbal. The latter involves what Michael Polanyi (2009) refers to as “tacit knowledge” which is based on his assertion that “we can know more than we can tell” (p.4.) Moreover, Denzau and North (1994) claim that “individuals

with common cultural backgrounds and experiences will share reasonably convergent mental models, ideologies, and institutions” (pp. 3-4.)³

In a world mired in uncertainty, we can never be sure that any theory or SMM is one hundred percent accurate. The 2015 World Development Report reveals that “[t]here is immense variation in mental models across societies, including different perceptions of the way the world ‘works’” (p. 62.) As statisticians George Box and Norman Draper (1987, p. 424.) pithily noted, “all models are wrong, but some are useful.” In certain instances, SMMs can help us fill in gaps in our knowledge with information and claims that are consistent with our worldviews (WB, p. 63, 69). At other times, however, they may cause us to ignore data and feedback that is inconsistent or conflicts with our deeply-held beliefs and assumptions about the world.

Contemporary forms of “financialization” are often associated with a set of SMMs underlying economic globalization known as “neoliberalism” (Cerny, 2008; Steger & Roy, 2010.) The neoliberal SMM collectively embodies various subsets or strands which jointly emphasize the virtues of market capitalism as espoused by classical liberal economists. These strands tend to range from “no-holds barred” free market fundamentalism (as promoted by Friedrich Von Hayek and Milton Friedman) to more moderate and mainstream economic approaches emphasizing the positive role that government can play in correcting market failures and helping smooth out market cycles. While financialization, as a concept, is not necessarily interwoven with neoliberalism per se, the ideas fueling many of the decisions made by those within the financial services sector in recent decades tend to be highly sympathetic with an extreme strand of neoliberalism known as “free market fundamentalism.”

While the adoption of sensible liberalization policies governing international capital flows have greatly helped improve global economic efficiency and growth, perverse liberalizations (i.e. those that simultaneously eviscerate essential capital controls and regulatory safe guards while shielding the financial system from excessively risky behavior) have served to increase the propensity for global economic turbulence. Such liberalization policies have contributed significantly to large capital flow surges that have quickly turned in the other direction, resulting in large disruptive reversals. In some cases, such surges and reversals reflect efficient responses to changing economic circumstances and government policies. However, in many cases, they cannot. Such perverse liberalization policies were often the conscious design of those who blindly followed free market fundamentalist rationales and/or the result of political pressures exerted by shortsighted special interests.

If those operating in the financial sector are to develop and implement sound financial liberalization policies and processes more effectively in the future, they must begin with sound SMMs. The quality of knowledge or theory in any field or practice depends upon rigorous research and scrutiny. The validity of this knowledge is further determined through independent testing and verification by outsiders. In some important areas of the financial services sector, however, these areas have been negligently absent. Many practitioners rarely question or challenge the core underlying assumptions, axioms, and

beliefs that inspire the activities and practices within the industry. Securities traders, for example, often operate in narrow professional silos (see Tett, 2015) according to highly similar (and in some cases detrimentally wrong) beliefs about how the world works. Consequently, contesting views emanating from outside industries and professions often fail to permeate, resulting in a high degree of confirmation bias within the financial services sector.

While sometimes difficult to achieve, major shifts in SMMs are possible. For example, the devastating economic crises that have followed in the wake of international financial surges and reversals have led many economists and officials to rethink their positions regarding the universal liberalization of capital controls. In an article that has attracted considerable attention entitled "Neoliberalism Oversold?," IMF economists Ostry et al. (2016) argue that part of the neoliberal agenda promoting the complete liberalization of capital controls may have been extreme.⁴ This view is consistent with the positions of mainstream neoliberals, such as Nobel Prize Winner James Tobin and John Williamson (and others belonging to the Washington Consensus), who have long advocated the use of capital controls in environments that have been prone to market failure.

Third, Cooperation and Communication within an Interdependent Economic System is Essential. The failure of many actors, including officials and financial sector participants, to recognize the growing complexity and interdependence of many financial activities is a major problem. As Hayek emphasized, one of the benefits of the competitive price system is that it reduces information costs for many actors (Hayek, 1945.) Unlike central planners, most actors may only require a certain amount of local knowledge about a particular area in order to operate efficiently. However, at the same time, important public and private actors must take into account the broader interdependencies within a larger system if they are to optimize potential gains to themselves and the others with whom they interact. The GFC was, due in part, to the fact that both the leaders of financial institutions as well as state regulators focused too narrowly on the risks assumed by individual firms. In doing so, they failed to see the systemic risks deeply embedded in the structure of the financial sector.

If the financial sector is to perform its job effectively and promote consistency and stability within the economy as a whole, then the actors operating within it must start by “minding the gaps” that exist throughout the complex and interdependent system. This entails looking beyond the parts that they perform within it. Participants who operate in the broader economic system must develop greater awareness about those who depend on their products and services as well as those on whose services and products they depend. Many traders, for example, tended to be highly conversant with the technical process involved with trading mortgage-backed securities, but knew surprising little about housing markets or the mortgage industry (Kay, 2015.) As Deming (2000) once wrote, “One may learn a lot about ice, yet may know very little about water” (p. 101.)

While isolated parts of an industry may operate very well on their own, they often do so to the detriment of the system as a whole. Fixing these structural problems will require leaders to do more than simply adopt new reforms and regulations. In fact, attempts to

implement new reforms in a bad system will likely make things worse (Kay, 2015, p. 7.) Indeed, as the esteemed quality management guru Russell L. Ackoff (2003) noted, “[t]he righter we do the wrong thing, the wronger we become” (p.1.) Unfortunately, the official responses to the global financial crisis focused on tinkering with the existing system rather than overhauling it. The United States’ Dodd-Frank legislation, for example, outlines a host of new regulations, that in part, mandates higher capital requirements for many financial institutions. While Dodd-Frank represents on balance a step in the right direction, many experts argue that these reforms do not go nearly far enough (see Admati and Hellwig, 2013; Kay, 2015; King, 2016; Turner, 2016.)

Fourth: Sound Regulation and Enforcement is Crucial. Government officials have not done enough to ensure that current regulations are effectively enforced. Many point to the reversal of Glass-Steagall regulations as the main culprit. Deregulation, in and of itself, however, played only a partial role. While the repeal of the Glass-Steagall Act, for example, allowed commercial banks to engage in certain risky investment banking activities, it was the pure investment banks, such as Lehman Brothers, that were directly hit by the crisis. Glass-Steagall would have done little to curtail high-risk financial behavior taking place within investment banking itself. Indeed, the Securities and Exchange Commission (SEC) watched approvingly as these investment banks increased their leverage by taking on higher levels of debt.

Participants in the financial system have demonstrated an enormous capacity to either circumvent the spirit of regulatory rules or manipulate them to their own advantage. Consequently, many experts (with whom we agree) have been pressing for a smaller number of rules that are easy to understand and enforce across the industry. To begin with, regulators need to enforce limits on the size of financial institutions and the manner in which they interconnected so that they are not "too big to fail." In addition, regulators must: 1) set higher capital requirements that financial institutions must hold, 2) impose stricter regulations governing the amount of leverage that they may assume, 3) require them to maintain higher levels of liquidity to ensure their solvency through periods of volatility.

CONCLUSION

As we have seen, the financial sector performs many functions that are crucial to supporting a well-functioning market economy. As we have also shown, however, the growth in the financial sector is related, in part, to the increase in high-risk securities trading in recent decades. The financial sector’s deepening involvement in this highly volatile industry has made financial markets increasingly susceptible to financial crises. This is especially true in instances where perverse incentive structures have taken root and proper regulatory oversight is wanting. At the same time, one must point out that it would be impossible to eliminate the factors that contribute to financial crises entirely without simultaneously stifling the crucial functions performed through financial intermediation. The conundrum before regulators is to figure out how they can effectively implement regulation that discourages excessive risk-taking, while at the same time enabling the financial services sector to perform these essential functions. Most

mainstream economists agree that we can maximize many of the gains, and, at the same time, minimize many of the likely losses produced by financialization, through the intelligent design of procedures and practices that promote more stable and predictable financial systems. Moreover, we can, and must, do more to discourage financial activities and practices that waste society's resources, whether or not these activities lead directly to crises.

Leaders in the industry, and the public sector regulators that are supposed to oversee their activities, must begin by adopting a new philosophy or set of mental models that guide the core aims of the financial sector. In a world characterized by great (and ever-growing) uncertainty, it is difficult to predict which mental models will prove useful and which ones may be detrimental. The financial sector operates as a relatively closed system that not only engenders detrimental blind spots, but also tends to reinforce high degrees of confirmation bias. Industry leaders must make a concerted effort to solicit and systematically incorporate outside views and independent analysis into their processes and activities.

Sound mental models, however, are not enough. Even if most individuals operating within the financial services sector were to abandon fundamentally flawed mental models, some actors would continue to seek to benefit themselves at the expense of the broader society. The drive to maximize short-term profits often tends to outweigh concerns about the possible long-term consequences for the entire economy. Calomiris and Haber (2014) document that political interests interacting with special interests have been a major factor contributing to the creation of fragile financial systems.

There are grounds for hope. For example, after their crisis of 1997-98, a number of Asian countries undertook reforms to improve the regulation and supervision of their financial systems as well as reduce political cronyism in the lending process. There are many lessons that we should have gleaned from the Asian experience. Unfortunately, however, many of these went largely ignored by financial actors and government regulators in western industrial economies.

Will the painful experience of the global financial crisis be enough to inspire similar kinds of learning among policymakers within the advanced economies? To date, the evidence is mixed. While there is some evidence that views are beginning to change in positive directions, there still is a long way to go. Many experts believe that the revisions in financial regulations since the crisis have been far from sufficient to ensure safety and soundness of our financial system. To what extent further developments will ultimately translate into genuine, and much needed, transformations of the financial sector will remain an open question for some time to come.

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Endnotes

¹ AIG lost nearly 100 billion dollars in 2008 related to the crisis. Over 30 billion dollars of this loss was in credit default swaps. The Federal Reserve Bank of New York was compelled to extend an 85 billion dollar loan to keep the fledgling insurance giant from collapsing. Credit default swaps are the most common form of credit derivative contracts designed to insure against risk associated with a variety of debt securities including municipal, corporate, and market bonds as well as mortgage-backed securities. Credit default swaps are insurance contracts that are issued to protect lower rated securities against potential future defaults.

² For further discussion of the role of faulty mental models in contributing the crisis, see Willett (2012.)

³ This is also true of those who engage in shared teaching and learning environments. (See Oestmann and Oestmann, 2011.)

⁴ The IMF's position on neoliberalism introduced here is highly nuanced. It specifically relates to the reconsideration of the view that countries should universally embrace the liberalization of capital controls in all circumstances. The IMF's reconsidered position does not involve a wholesale rejection of neoliberalism, the basic tenets of free markets, or the doctrine of capitalism more generally.