

NEW VOICES IN PUBLIC POLICY

Volume V
Winter 2010/2011

Black Swans, Crisis Economics, and Globalization: A Critical Appraisal

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ISSN: 1947-2633

Introduction

The severity of the recent global financial crisis has sparked intense debate among economists, politicians, and the public regarding the factors that led to the downturn, as well as the future of U.S. fiscal policy. Amidst the debate, general sentiment is echoed in a question from New York Times columnist and author Andrew Ross Sorkin: “could the financial crises have been avoided? That is the \$1.1 trillion question—the price tag of the bailout thus far. The answer to that question is ‘perhaps’.”¹ In the search for causes, we are also examining the nature of our economy, the roles financial institutions and government play within it, and hopefully an insight that can shelter us from unforeseen hazards.

Many ideas have surfaced, and although proposals vary widely depending on their proponents’ economic and political leanings, common trends can be identified that highlight significant limitations in the financial system. Three trends in particular have gained wide support: (1) that the complexity of finance hinders transparency of meaningful data, preventing so-called “experts” from effective, proactive identification of systemic risks; (2) that investors, traders, and banks can too easily take significant risks with significant amounts of money, over-leveraging accounts and fueling instability; and (3) that the continuing debt issues in the U.S. are burdening the domestic economy, while the reach of that debt into foreign countries is causing a cascading effect on the global financial system, increasing vulnerability and hindering recovery.

As stakeholders examine strategies to recover from the current crisis and propose reforms to reduce future systemic risk, debate has centered on whether targeted reforms are sufficient, or whether there are fundamental flaws in the way that investment risks are predicted, thus requiring a shift in our understanding.

The “Black Swan”

Some investors argue that the financial crisis was a “Black Swan,” an unpredictable, high-impact event that cannot be prevented. The notion of a Black Swan event was introduced in 2007 by Nicholas Nassim Taleb, an investment fund manager and former trader, who argued that human beings’ tendency to reflect on the past in order to predict the future limits their understanding of the world and increases vulnerability to extreme, unexpected events. Taleb contends that chance plays a larger role in world affairs than most would care to admit, and that Black Swans are worsened by the fact that they are unexpected.²

Despite the commotion around his theory, Taleb maintains that the current crisis was not a Black Swan event, and accuses other financial experts and investors of using his theory incorrectly, and “against” him.³ He says that the crisis was due to experts’ implementation of flawed mathematical models that rely on risk assessment as a stabilizing tool in the banking system, and that the crisis was a predictable event, although few saw it coming.⁴ He is unabashed in his critique, commonly debasing market economists as fools and relaxing restraint in his comments: “value-at-risk is charlatanism!”⁵

There are those who have seized on Taleb’s notion of unexpected Black Swan events and have tried to apply it to the current financial crisis. For example, the financial firm Belray Asset Management published a statement in 2008 professing the virtues of Taleb’s theory, calling the economic crash a Black Swan and emphasizing that investors should expect that any portfolio could and would experience negative returns.⁶ Financial advisory firm Deloitte Touche Tohmatsu similarly describes the crisis as a Black Swan and talks about the need for “risk intelligence.”⁷ However, the statements issued by such firms do not discuss Taleb’s views on the crisis, nor his criticisms that the risk assessment models employed by many investors and financial advisers today are fundamentally flawed.

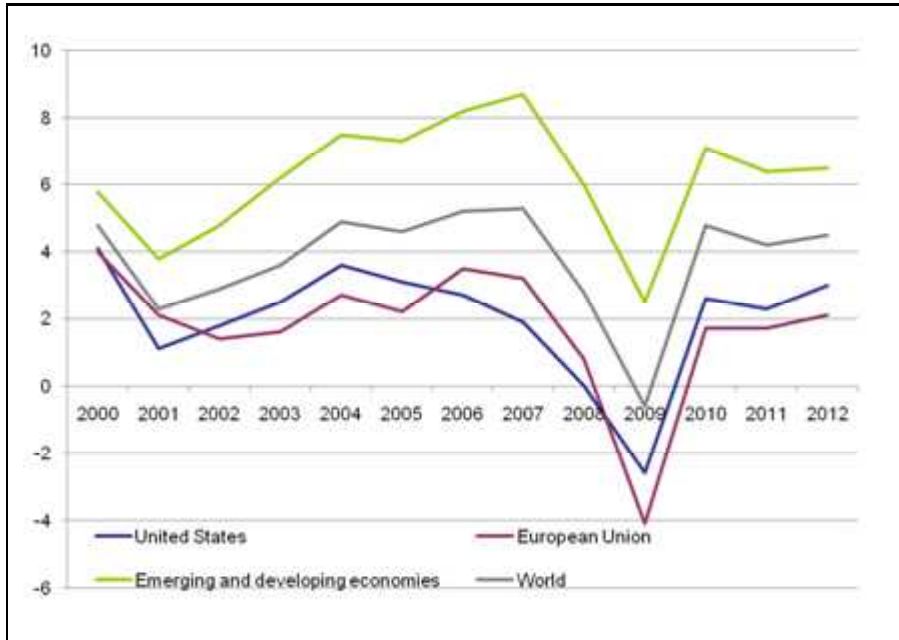
Rather, investors across Wall Street have capitalized on the idea of “Black Swan investing,” setting up special portfolios or funds to profit from the “next” Black Swan event.⁸ These funds loosely follow Taleb’s investment model of placing most of a fund’s assets into safe, or low-risk, investments, and using approximately 10% only for other, higher-risk activities. Although this tail-risk investing follows some of the basic precepts of Taleb’s theories and practices, it ignores his larger arguments about the flaws in investor risk calculation, and the actions of these Taleb “converts” assume that the current financial crisis was indeed a Black Swan event.⁹

It would certainly seem, as we will discuss throughout this brief, that there were distinct trends and signs that foretold the coming crisis. It is important to distinguish, however, that predictability supports Taleb’s argument even more: that backward-looking understanding is always clear, but it does not permit the use of such understanding for forecasting. Black Swans exist because risk models anticipate the future from the past. The lesson: we can look for reasons but be wary that remedies to past mistakes will insulate you from future calamity.

Severity of the Crisis

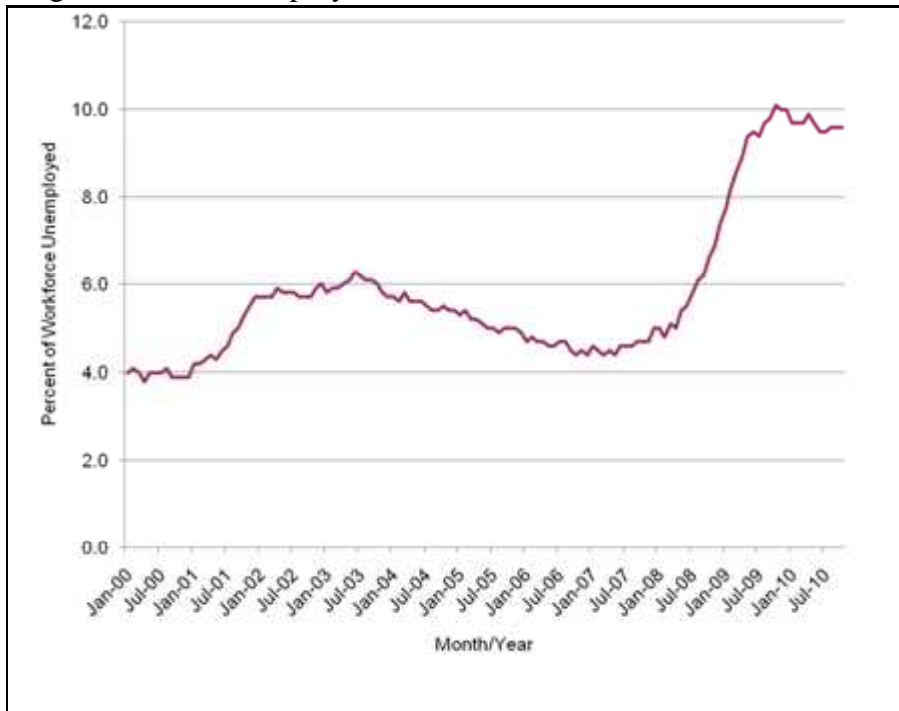
The point on which everyone can agree is that the current financial crisis has had extremely damaging consequences for the U.S. and global economies. According to the latest International Monetary Fund (IMF) Global Financial Stability Report, banks have reduced their asset values by approximately \$2.2 trillion since the start of the crisis.¹⁰ The Federal Reserve in 2009 estimated that Americans had lost \$1.3 trillion in wealth just in the first quarter of the year, due to falling stock and home prices.¹¹ Meanwhile growth rates, a necessary driver of recovery, are struggling to return to pre-crises levels (See Figure 1). Even more apparent to the average citizen, U.S. unemployment rates (See Figure 2) continue to hover stubbornly at just below 10%¹² and approximately five to seven million home mortgages still face foreclosure.¹³

Figure 1: Real GDP Growth (Annual Percentage Change)



Source: International Monetary Fund

Figure 2: U.S. Unemployment Rates



Source: U.S. Bureau of Labor Statistics

How severe has the “Great Recession” been? According to the Business Cycle Dating Committee, the crises that began in December 2007 bottomed out 18 months later in June

2009.¹⁴ This measure claims to pinpoint the beginning of the recovery, while it admits that by no means has the economy returned to its original vigor even with 18 months of recovery after the purported “trough”. The fact that the recovery will take far longer than the recession itself indicates both the seriousness of the crisis and the need for the U.S. and other governments to ask themselves how they can better mitigate the impacts of inevitable future economic crises, if at all.

These domestic fall-outs, while alarming enough on their own, are only part of the economic challenges policymakers are currently facing. Globalization facilitates an interdependent environment in which a crisis sparked in the United States (or any large economy) can create a series of cascading impacts and downturns around the world. These cyclical effects are evident in the current crisis, where the issues in the United States have reverberated throughout Europe, and where looming sovereign debt issues threaten to circle back to impact the already fragile U.S. recovery.

For the first time since the end of World War II, the U.S. economic advantage over the rest of the world has declined. We are in a new social, economic, and political arena, one in which issues are intertwined within multiple sectors of interdependent nations and require an increasingly global vision. We cannot be concerned with the ongoing recovery and enduring stabilization of *only* the U.S. anymore, but need to reflect on our immersion within globalization and how it reaches back to us, as we will discuss.

Causes of the Crisis

Extensive analysis since 2007 has yielded several theories as to why the financial crisis happened, and why it was so severe. While the conclusions of these theories differ, there are common trends that can be gleaned from the various arguments. These trends lend themselves to Taleb’s argument that this financial crisis in particular was not an unexpected, “Black Swan”

event. There were distinct signs of the underlying flaws in the financial system, some of which analysts noticed early on. One keen observer, New York University Professor Nouriel Roubini, gave an eerily correct prediction of the looming crisis in 2006 at a meeting of the IMF—what he aroused was mostly skepticism.¹⁵ The precision of his forecast, however, reinforces the notion that telling evidence was there all along.

Data Issues

Several analyses of the crisis agree that there is a significant shortage of reliable, usable data available for both regulators to monitor systemic risks and for investors to measure potential risks for their activities. According to some, such as Adelheid Burgi-Schmelz of the IMF, comprehensive information highlighting the risky behavior of some investors, as well as exactly how intertwined national and global financial institutions have become, would have helped regulators flag signs of the looming crisis sooner and take steps to mitigate it.¹⁶ Describing the crisis as a failure of data systems to capture the “deepened integration of economies and markets,” the IMF Statistics Department noted in September that there is a demand for more “internationally comparable, timely, and frequent data,” given the global scale of the crisis.¹⁷ The Committee on Capital Markets Regulation, a consortium of think tanks and private sector representatives, similarly argued, “much of the present crisis could be attributed to a lack of critical information (and perhaps, in some cases, misinformation).”¹⁸

For example, the Financial Stability Board (FSB), a group of national banks, finance ministries, and other authorities, reports that there was a lack of sufficient data to monitor and assess risk distribution in financial products and credit risk transfer mechanisms.¹⁹ Similarly, the FSB noted in a report to the G20 that data showing the volatility of specific indicators could have helped regulators spot potential economic vulnerabilities.²⁰ The IMF notes several other gaps, including data segments covering: non-bank financial institutions, cross-border banking flows,

standardized government finance statistics, and real estate pricing.²¹ Several analysts argue that effective communication of official statistics between institutions and governments has also been lacking.²²

It is not only the way we organize data and conduct analysis, but the way in which we work that has created what economist Arnold Kling refers to as a “discrepancy between knowledge and power.”²³ In a recent interview, he summed up much of his work with the idea that “knowledge has become increasingly specialized and dispersed but power is becoming increasingly concentrated.”²⁴ This trend results in managers acting with imperfect knowledge of their organization and of the plausible effects of their actions. Charles Calomiris of Columbia Business School holds an analogous critique of regulations, which he says diminish the ability of banks to be owned by large institutional investors.²⁵ The effect is that ownership is distributed too widely, allowing management to act with less accountability and information, resulting in more discretion towards risk. It is a counter-intuitive presumption, that as shareholders increase and rights are distributed, power does not dilute as expected, but rather concentrates among the managers. To extend Kling’s idea: knowledge *and* ownership are increasingly scattered, whereas power remains in a cloistered cell.

Leverage Issues

The lack of data and transparency in the international financial system revealed itself when the speculative bubble hit in late 2007 and banks were suddenly faced with a serious crisis of illiquidity. Devalued assets dried up the necessary revenue streams with which institutions could have paid down liabilities. Failures to pay brought cries for government intervention to stabilize the financial system, which the U.S. government did through legislation authorizing the Treasury Department to purchase troubled assets in large financial institutions and other corporations. This prompted immediate backlash to so-called “bailouts”, temporarily

overshadowing looming issues that might have created the ultimate need for such assistance: over-leveraging.

The assets held by banks were inherently full of risks. Added to that, the ratio of equity to debt, or the leverage ratio, climbed to precarious levels. Professor Russ Roberts, host of the Library of Economics and Liberty's "EconTalk," notes that some banks were borrowing at a ratio of 32:1 (equivalent to investing \$100 with only \$3 of one's own money).²⁶ In addition, the mismatch of risk to leverage created a crisis in itself. According to testimony from the Government Accountability Office (GAO), regulatory measures did not constrain these actions enough, "result[ing] in some institutions not holding capital commensurate with their risks and facing capital shortfalls when the crisis began."²⁷ The banks were in a very precarious situation, and it was not completely apparent until the recession uncovered these bad bets.

William Poole, a senior Cato fellow and former president of the St. Louis Federal Reserve, finds fault more in the actions of financial institutions than with the claim from critics that lax government regulation allowed leverage to get out of hand: "Building portfolios with risky long-maturity assets financed with *little equity capital* [italics added] and short-maturity liabilities, however, is an inexcusable mistake."²⁸ Even if government regulators were doing a suitable job, poor decisions by banks make the fall-out their own fault. This idea aligns with Kling's notion of moral vs. cognitive failures. A moral failure exists when "the compensation structure for executives at financial institutions encourage[s] them to place their own and other firms at risk to reap short-term gains."²⁹

Conversely, a cognitive failure occurs when "executives and regulators overestim[at]e the risk-mitigating effects of quantitative modeling and financial engineering."³⁰ The former relates to greed and the latter to Taleb's insistence that risk cannot be measured so ingeniously. For Poole and others, the banks were susceptible to moral failure, evidenced in their "inexcusable"

actions. Taleb's proponents find more evidence in the cognitive failures, expressing limitation on what we can know. It is this camp that is attracted to Calomiris' "distorted micro-economic incentives" and which see cause and potential for reforming faulty government policies.³¹

An instance of government policy inadvertently encouraging over-leveraging can be found in Calomiris' discussion of rating agencies.³² A lot of the discussion has centered on the trumped-up ratings that toxic assets were awarded by reputable agencies. However, Calomiris narrows in on the regulations that translate ratings into leverage. For example, if a large pension fund would like to increase its leverage ratio, it is limited by regulation based upon the quality of the assets it holds. If the pension fund chooses AAA over AA-rated assets, it is permitted by statute to increase its debt to equity levels on the presumption that less risk is involved. While the intention appears sound, it overlooks the possibility that the ratings are deceptively optimistic. Calomiris insists that if people understand that ratings agencies have an incentive to produce higher ratings for their clients, then we would not be so trusting in the first place. Unfortunately, that trust, translated through regulatory statutes, permitted large institutional investors to increase their leverage ratios and take on more risk.³³

While corporate leveraging has gained a lot of focus, it is important to keep in mind that households were involved as well. In fact, according to Professors Atif Mian of the University of California at Berkeley and Amir Sufi of the University of Chicago, households had higher average leverage ratios. Household debt to income ratios (a measure of leverage) soared to near 7%, whereas corporate ratios stayed below 5%. This was a drastic increase for households: "In just five years, the household sector doubled its debt balance. In comparison, the contemporaneous increase in corporate debt was modest."³⁴ The ability for households to access higher levels of credit should reflect on the enabling policies as above, and not on a presumption of generalized moral failure.

Debt Issues

The third major trend attributed to the financial crisis is the overwhelming amount of debt dependence in the economy. The U.S. and its consumers have been treating debt as income in order to “sustain an unsustainable level of consumption.”³⁵ Taleb supports the theory that our society is too dependent on debt, and believes the government should convert debt to equity in order to promote a stable, robust economy.³⁶

Prior to the financial crisis, budget deficits accrued; national debt began to increase, and demand for foreign capital rose. Once the recession hit, a budget deficit already existed, so the stimulus package, which aimed to stabilize, not fix, the economy, only increased the debt further in the federal budget. Richard Posner, a Court of Appeals judge and law professor in Chicago, describes the effects of prior spending in his book, “so great was the national debt before the financial crisis hit that the economy will be hard-pressed to absorb the enormous expenditures that are being made in an effort to spur a recovery.”³⁷ According to the CBO, this is the first time since World War II that the percentage of federal debt held by the public has exceeded 50%. At the end of the 2007 fiscal year, just before the start of the recession, publicly held debt was 36% of Gross Domestic Product (GDP), but by the end of the 2010 fiscal year, CBO officials estimate it to be 62% of GDP.³⁸

The U.S. debt is both a domestic issue, and an international problem. Domestically, the U.S. housing industry accounted for a majority of the increase in debt owned by the public. Low interest rates and rising housing prices created an aura of confidence within the housing market, and led to more homes financed through debt. “The illusion of wealth generated by the housing bubble coupled with low interest rates and flat incomes led to an explosion of home equity loans.”³⁹ Although housing prices were rising, the ratio of housing loan-to-value was decreasing; in other words, the abundance of lending allowed consumers to buy houses they could otherwise

not afford. As was stated earlier, the debt-to-income ratio increased 7%, so consumers were making less, buying bigger, and owing more. Before the bust, homebuyers looking for a quick return on investment could obtain a mortgage easily, then turn around and sell it for a higher price. Housing “flippers”, successful before the bust, were not prepared for a downturn in housing sales and could not handle full possession of the loans they had accumulated. As these domestic debts came due, consumers began to default, and cries for government intervention ensued.⁴⁰

U.S. consumers were not alone in their outrageous debt and spending cycles; the government has also been spending beyond its means, and borrowing to finance the gap. Total U.S. output has decreased and demand for foreign imports, both physical and capital, has increased, causing an imbalance within the Federal Reserve accounts and adding to the growing debt. The recent decision of the Fed to inject \$600 billion into the economy through quantitative easing will not do much to balance those accounts, either. The rising trade deficit has led to a balance of payments problem that uses lending from outside investors. Just as a debt in one sector can affect another sector, a debt crisis in one country can have reverberating effects on the international system. Some countries maintain a yearly surplus (e.g., China, Japan, etc.) while others sustain financial outflows and run yearly deficits (e.g., U.S., UK). This pattern is untenable; the U.S. cannot continue to spend beyond its means because eventually it will be forced to deal “not only with their external debts (owed to foreigners) but those of private domestic borrowers as well.”⁴¹

Globalization, Impacts, and Accelerating Effects

The three trends (data transparency/discrepancies, over-leveraging, and debt dependence) highlighted by the crisis are highly intertwined and encompass a global perspective. This latest crisis saw the problems facing the U.S. spread worldwide like an infection. The great degree of

interconnectedness witnessed today, the velocity and volume of goods, services, and money, labeled generally as globalization, facilitated a cascading effect upon the rest of the world. Furthermore, the shock to foreign economies exacerbated the recession felt back home. Increased trade and financial linkages, celebrated by proponents of globalization and economic liberalism, revealed themselves to be direct channels through which the crisis could spread. International borrowing and debt further heightened various nations' vulnerability to the crisis.⁴²

Taleb echoed this in his book, warning that globalization “creates interlocking fragility, while reducing volatility and giving the appearance of stability.” He argued that globalization led to more “devastating” Black Swan events because of the increased interrelation between countries, more specifically between financial institutions, which he described as increasingly “homogeneous”.⁴³ A recent article by Enrique Mendoza and Vincenzo Quadrini in the *Journal of Monetary Economics* highlights that globalization also contributed to over-leveraging in countries like the United States by facilitating easier foreign lending.⁴⁴ Strident critics of globalization identify more direct links between the increasing interdependence of national economies and the financial crisis, arguing that job outsourcing in the U.S. led to stagnating or decreasing income levels and increased reliance on credit.⁴⁵

As the U.S. crisis spread overseas, the ramifications of the global impact have cycled back to impact U.S. markets again. For example, Governor Daniel Tarullo of the Federal Reserve testified before Congress in May 2010 that the high degree of integration between U.S. and European markets has made the eurozone problems a domestic issue as well. Noting the impact that the news of eurozone issues has had on U.S. stock markets alone, Tarullo added that the European crisis could weaken “the asset quality and capital positions of U.S. financial institutions.”⁴⁶ Tarullo also testified that continued stresses in Europe could lead to further liquidity shortages in some institutions, along with required asset sales and other actions that

could force U.S. financial institutions to further reduce lending, a key issue in the U.S. recession. Finally, Tarullo noted that a worsening crisis in Europe could lead to reductions in trade, further impacting the U.S. economy.⁴⁷

Calls for Reform

The financial crisis was not a Black Swan event. It was the result of multiple documented factors, such as failed risk analysis interpretations and the dependence on debt, and the inability of governments to prevent these factors from imploding. Taleb actively blames the crisis on the structure of the banking system; he believes it has failed once, and will therefore fail again; “America is the greatest financial risk you can think of.”⁴⁸ Economic reconstruction can be initiated through regulations and government reforms, through market channels of neo-liberalism and reduced government interaction, or a balance between the two.

Varying degrees of regulatory reform have been proposed as a way to eliminate the initial causes attributed to the financial downturn, as well as restructuring an economy suitable for growth. The proponents of increased or improved financial regulation argue that the current regulatory environment rewards excessive credit and risk-taking with limited understanding or consequences. Calomiris describes this as “poorly designed structures and incentives,” effectively an accumulation of several government policies, which miss the mark and actually promote instability.⁴⁹

John Taylor of Stanford University specifically faults the Federal Reserve, under the leadership of Alan Greenspan, for keeping interest rates too low for too long.⁵⁰ The ease with which credit could be acquired led to its eventual commodification. The implications are far-reaching, but the focus remains on deficient or counterproductive government policies. This notion aligns with traditional economic neo-liberal thinkers who push for generally decreased regulation for investment banks and within consumer markets.

Others argue that instead of using market forces to control financial and monetary policies, the U.S. should consider its large deficits and foreign debts and approach monetary and financial policies with more skepticism towards foreign borrowing.⁵¹ A mercantilist approach, rather than economic liberalism may be beneficial to U.S. recovery. Considering the extreme interconnectedness of the global economy, and the cascading effects it can have on individual economies, the U.S. should be prepared to act, and secure itself on its own behalf, because even “the IMF has lost credibility and is at its lowest levels of financial health in years.”⁵²

Current Domestic and International Policy Actions

Some steps have already been taken to try to address the immediate gaps highlighted by the crisis. In the short-term, Congress established the Troubled Asset Relief Program, or TARP, through the Emergency Economic Stabilization Act of 2008. TARP sought to address the immediate impacts of the crisis by authorizing the Treasury Department to purchase assets in failing financial institutions and other major companies. To date there have been approximately 17 recipients of TARP funding, ranging from banking giants such as AIG and Bank of America, to companies supporting major U.S. industries, such as General Motors and Chrysler. Many of these companies have repaid the money loaned to them through TARP, and the most recent estimates place the cost of the program below \$50 billion, down from original estimates of over ten times that amount.⁵³ Cost estimates are appearing more favorable, particularly with GM’s recent initial public offering, reducing the government to minority shareholder status.

While TARP attempted to address the immediate impacts of the crisis, the Dodd-Frank Wall Street Reform and Consumer Protection Act, passed in July 2010, was the first post-crisis legislation to address the longer-term implications of the crisis through financial regulatory reform to reduce both systemic risk and reckless investment behavior. The law creates or consolidates several new agencies to try to improve regulatory oversight of financial sector

activities, including a new Consumer Financial Protection Bureau, Financial Stability Oversight Council, and Office of Financial Research. These new agencies will presumably try to address the data gaps and transparency issues that several analysts pointed out as flaws that increased systemic risk. The law also puts in place new capital and leverage requirements for banks, in an attempt to prevent financial institutions from becoming “too big to fail.”⁵⁴ While this legislation can prove helpful, however, it is the implementation that will be important to monitor.

Although the U.S. has begun to cut spending in high-cost areas such as defense,⁵⁵ Europe has so far taken the lead on austerity measures post-crisis as it grapples with both the eurozone’s stability and sovereign debt issues. The Conservative-led coalition government in the UK announced in October that it would implement significant cuts in its budget to address deficit and debt issues.⁵⁶ Prime Minister David Cameron has turned away from the Thatcher free-market thinking, and has turned toward Taleb’s more skeptical-conservative view.⁵⁷ Over the next four years, the British government will cut approximately \$128 billion, or 4.5% of the projected GDP in 2014-2015. The cuts in defense spending and other central services such as police and local government will result in an estimated loss of 490,000 public sector jobs.⁵⁸

These severe austerity measures follow an IMF-led series of proposed cuts in Greece and other vulnerable European countries, where investors have become less willing to hold on to sovereign debt during the ongoing crisis. Greece, bearer of the highest debt burden in the eurozone, has had to look at a combination of tax increases and public spending reductions to try to rein in its budget deficit to approximately 7% of GDP by 2011.⁵⁹ In October 2009, the country’s newly elected government exposed the extent of the nation’s deficits, which had allegedly been concealed for years.⁶⁰ Ireland’s banking crisis is the recent target of European bailout efforts and major austerity announcements, with an 85 billion euro package complete with mandatory tightening the EU insists Ireland needs.⁶¹

The U.S. may soon follow its European counterparts. In February 2010, President Obama established the bipartisan National Commission on Fiscal Responsibility and Reform. The commission's co-chairs released an initial proposal on November 10, outlining a combination of spending cuts and tax increases aimed towards reducing the federal deficit. The measures include federal agency budget cuts, reductions in federal staffing, and slashes in federal programs.⁶² On December 3, the full Commission voted to recommend the proposals to Congress, but a supermajority was not reached, which would require Congress's consideration. Still, bipartisan support, even if mild, has prompted public debate, with some suggestions from President Obama that the measures might be adopted.⁶³

Looking Forward

The current policy actions are aimed at stabilizing the economy, but they will not fix the system nor the underlying issues that led to the crisis, according to Taleb and others. Ricardo Caballero, professor of Economics at M.I.T., goes so far as to presume policy actions will leave us more vulnerable by attempting to refine the "precision" of equilibrium models that are too self-obsessed: "on the policy front, this confused precision creates the illusion that a minor adjustment in the standard policy framework will prevent future crises, and by doing so it leaves us overly exposed to the new and unexpected."⁶⁴ Heeding the unconventional wisdom, we must be wary moving forward.

July 2009 marked the end of the recession; the U.S. economy has stopped falling, but restoration of economic momentum has yet to be regained. Craig Elwell, a specialist at the Congressional Research Service, believes solving two of the primary macroeconomic problems, growth and debt, will restore momentum, which requires discussion of long-term policies that will reduce the government debt, and counteract the short-term spending. There are concerns that

without further policy actions, the U.S. will have a very difficult time returning to pre-recession growth patterns, if it can at all; and worse, a second recession could hit.⁶⁵

Taleb has portrayed our economy as a too-complex system that enables Black Swan events, making society ever more vulnerable; but it does not need to be this way. He argues for the creation of a Black Swan robust society, one that is able to withstand expert mistakes and accept the debt crisis as consequence of structural problems. In order to buffer the impacts of these cyclical crashes, Taleb proposes the voluntary movement to “Capitalism 2.0.”⁶⁶ This allows the system, which is prone to breaking, to break early and on its own, because a deferred blow-up only creates the illusion of stability, but actually leads to a much larger systemic impact.⁶⁷ If an institution requires assistance, Capitalism 2.0 proposes nationalization rather than giving bailouts. Banks in particular should be reorganized as utility companies, serving a purpose other than speculation, debt accumulation, and risky asset allocation. Banks, after all, are meant to finance the risk of individuals, not to chase profits for themselves with the assurance of socialized losses.⁶⁸

Taleb further argues that experts are not really experts, and that the system should not be based on mathematical models to determine risk. Moreover, bankers should not deal with risk, entrepreneurs should; the government should convert debt to equity, and leveraged buyouts should be banned. The reason for all these prescriptions depends in part on Taleb’s insistence that knowledge is fundamentally limited.

To explain this idea, he describes what he calls the “fourth quadrant”, an area where countries’ behaviors tend toward Black Swans, with generally devastating consequences.⁶⁹ The four quadrants in whole are a match between: (1) the nature of the country, whether it possesses an “environment [that] can deliver large events,” labeled “Extremistan,” or one which cannot,

labeled “Mediocrastan”; and (2) the simplicity or complexity of decisions made for purposes of future gains.

Graphically, Taleb portrays this matrix as follows:

	Simple Payoffs	Complex Payoffs
Mediocrastan	First Quadrant Extremely Safe	Second Quadrant (Sort of) Safe
Extremistan	Third Quadrant (Safe)	Fourth Quadrant Black Swan Domain

Source: Recreated from Taleb, *The Black Swan*, 365.

The U.S., along with other developed countries, is structurally confined to an “Extremistan” environment. The conclusion that Taleb reaches is for us to move away from the fourth quadrant, where we likely resided during the financial crisis, toward the third quadrant, where gains can still be made, but disaster is more avoidable. Capitalism 2.0 lives in this third quadrant. The Black Swan problem comes from people making forecasts that were too fragile. A move to Capitalism 2.0 will create a society more resistant to these rare, high impact events.⁷⁰

Are We Addressing the Real Crisis?

Amidst all the debate over how to respond to the current financial crisis and adjust existing institutions, a larger set of questions looms. Given what we know about the increasing volatility and interconnectedness of the U.S. and global financial systems, we can ask: are our current institutions resilient enough to withstand future extreme stresses, which are likely to grow in strength; and will they be flexible enough to respond when crises hit? Do our basic institutions – regulatory, financial, judicial – require a fundamental overhaul in order to address the crises and Black Swans of the future? In other words, do we need to reexamine the nature of

capitalism in this country, and if we need to somehow change it, are the political will and tools available to do so?

The question of political will is key, for we could potentially be looking at a significant shift in how our society and economy should behave. Any attempt at meaningful reform will face stern opposition from entrenched interests that benefit from the current system. Change can also be daunting for voters, who are understandably focused on more immediate economic issues such as unemployment. We have seen them vent their frustration with elected officials and the government over the past three election cycles. No doubt there will be political consequences for any advocate of a shift in our economic thinking, especially for an elected advocate accountable to constituents. Charles Lindblom, Sterling Professor Emeritus of Economics and Political Science at Yale University, highlighted this resistance to change almost 30 years ago in an essay where he described the market as a prison, which initiates punishment for reform or regulation automatically in the form of unemployment or poor economic performance.⁷¹

Long-term solutions are mired in the short-term fascinations. Politically, it is questionable if reform can withstand voter backlash in the absence of a crisis. There have been drastic policy changes since the economy fell, but could any of those changes have been made before the crisis (assuming the foreknowledge was present)? Political viability tends toward weak reforms, calling into question our ability to prepare ourselves for what's next. Economically, Taleb lays significant blame on the short-end obsession of profits. Over the last 30 years, quarter-on-quarter earnings have governed investor decisions.⁷² The pursuit of short-term profits promotes fragility and leaves the market prone to huge losses. The feasibility of reform lingers over the debate of causes.

Taleb dislikes the notion of calculating risks, but the question must be asked: although a push to move beyond our current mode of capitalism comes with a potentially high cost, can we

risk not to? The recent crisis has proven that our over-confidence makes us vulnerable. While we may be confident that the current recovery will restore us to pre-crisis conditions, we should not accept that return as restoring stability in itself. Rather, skepticism toward the belief of perfect understanding and a healthy demand for accountability should be maintained to prevent a volatile blend of confidence and risk.

¹ Andrew Ross Sorkin, *Too Big to Fail: The Inside Story of How Wall Street and Washington Fought to Save the Financial System---and Themselves*, First Edition. (Viking Adult, 2009), 538.

² Nassim Nicholas Taleb, *The Black Swan: Second Edition: The Impact of the Highly Improbable: With a new section: "On Robustness and Fragility"*, 2nd ed. (Random House Trade Paperbacks, 2010).

³ Nassim Nicholas Taleb, *The Risks of Financial Modeling: VaR and the Economic Meltdown*, 2009, <http://www.youtube.com/watch?v=6QiiFSOrJhQ>.

⁴ Tim Morrison, "Q&A: Nassim Nicholas Taleb," *Time.com*, October 24, 2008, <http://www.time.com/time/business/article/0,8599,1853531,00.html>.

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