Market Incentives Gone Wrong

A Paradox of Risk Aversion

Structural Uncertainty and a Dysfunctional International Monetary System

Robert Johnson

The quantity of funds managed by sovereign states is now enormous. Efficient and productive investment of these funds may be critical to returning the globe to a period of rapid economic growth. But widespread risk aversion, due to exchange instability and capital flow imbalances, the author argues, may impede that solution and is now one of the major dangers to the world.

Sovereign wealth funds are entrusted with managing the risk and returns for their citizens in the current anxious environment.[1] It is not surprising that investors of any sort, charged with this task during a time of structural unraveling, respond to what economists know as Knightian uncertainty and political discord by seeking safety.[2] It would be rational for any given small investor to "seek a port

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in a storm," but when looking at the size of the accumulated holdings of the emerging countries, one cannot help but wonder whether we are on the brink of a collective "paradox of risk aversion" that is analogous to Keynes's paradox of thrift.

Financial theorists characteristically consider the distribution of risk and reward as exogenous. When we pass through the curtain from the realm of structural economic analysis and emerge into the domain of quantitative finance theory, we rarely translate our structural parameters into the higher-risk moments of the statistical distributions. Yet, as we learned in 2006–8 when AIG underpriced credit default swaps, the derivatives that served as insurance against mortgage securities, the collective behavior of financiers does tend to morph the statistical distributions of risk and reward. Thus the distribution of such risks can be a function of such price, not exogenously determined but endogenously determined.[3]

It is in this spirit that I am asking whether, collectively, the propensity to seek safety by those managing the large funds of the surplus countries does not present the world macro-monetary system with an impossible task that heightens our structural uncertainty, political discord, and the resulting riskiness of our financial assets and, in turn, amplifies their demand for the relatively riskless assets—regardless of the asset class, be it stocks, bonds, currencies, or even sovereign credit. Do we experience a paradox of risk aversion by all trying to hold the safest assets? (Are we not collectively flailing in the tension between desired financial sustainability and achievable social/political sustainability that the late Tommaso Padoa Schioppa wrote about in his paper "The Ghost of Bancor"?)[4]

One leader of an Asian fund described the challenge to me as rolling a dime down a saddle. Ordinarily there is a large flat runway on the top of the saddle, with deflation and runaway inflation at remote distances from the plateau. In the current context, the plateau narrows to a knife's edge, and the difference between a deflationary trajectory for prices and an inflationary trajectory is very narrow. Why are these seeming polar extremes both considered feasible in the current context? I believe it is because we are in a rare period of structural

disequilibrium in the world economy, not unlike the interwar period when the leadership of the world economic system passed from the United Kingdom to the United States. We are not in a period when expectations can be easily and stably formed. This complicates the challenge that protecting wealth entails.

It is in this circumstance that the very effort to preserve wealth by a concentrated group of investors with large holdings may actually make things more fragile and unstable. Not everyone can be safe in accumulating wealth. To paraphrase the *Financial Times's* Martin Wolf, the question is: How will surpluses of accumulated wealth be destroyed? The degree of wealth destruction is not known or predetermined *ex ante.* The sovereign wealth funds are not small atomistic actors in the world system. While everyone can feel small in the sea of international capital flows, I conclude that the management of large aggregations of sovereign wealth is tantamount to an oligopoly problem with cooperative and noncooperative options that are inherently unstable. (Cooperative outcomes invite cheating if one cannot easily detect noncompliance.)

What may be lost is that the redirection of these large surplus flows from the sanctuaries of sovereign debt into channels of expanding risk and investment has the potential to play a key role in moving the world economy from the trajectory of austerity and dysfunction to one of greater growth and prosperity. The adverse feedback loop where fear creates risk aversion, and risk aversion leads to an investment pattern that is socially destabilizing, which in turn heightens risk aversion and fortifies cautious investment, can be reversed. Sovereign investors, through their actions, could alleviate some of the fear and uncertainty that currently drives the propensity to be risk averse in investment behavior. I believe that, by virtue of their large concentrated holdings, they collectively have the means to break out of this destructive spiral.

Radical Uncertainty: The Dark Knight of the Investment Soul

The concept of Knightian uncertainty was developed in a period of structural turmoil after World War I (Frank Knight, John Maynard

Keynes in his *Treatise on Probability,* and Friedrich Hayek all appear to have seen the world through similar lenses at that time). Knight was the highly respected University of Chicago economist who focused before World War II on what we now call "unknown unknowns." We are now in a period when the "unknown unknowns" loom large in our world economy.[5] While I think these concerns are relevant to nearly all of the developed economies, I explore the issues from the point of view of the United States, which has been at the center of the world system since the 1940s. The turmoil in that country is, I believe, the most threatening to system coherence in the coming period.

Charles Kindleberger, the man who inspired me to become an economist when I was an undergraduate at MIT, wrote on the Great Depression and posited that the dysfunction of the world system at that time was the result of the center of power no longer being able to provide the "public good" of residual stability.[6] In some respects, the United States is now in a position like that of Great Britain in the interwar period. Meanwhile, China appears to be the advancing center. I underscore that the transition from Britain to the United States was between two cultures that had deep similarities in philosophy and tradition. A transition from U.S. to Chinese leadership may not be endowed with the same quality of cross-cultural understandings, and this could make such an adjustment much more challenging to actuate smoothly. If one models this challenge as a cooperative game with incomplete information, it could be said that the ability to understand the reaction function of the other player would be more difficult and cooperative outcome more difficult to attain.

Zbigniew Brzezinski, who served as national security adviser to Jimmy Carter, recently gave a speech at the Council on Foreign Relations that highlighted two ominous themes.[7] First, the structure of power has changed from a North Atlantic alliance to the G-20, including China, Brazil, Mexico, and Saudi Arabia, among other non-European or Japanese states. That the structure and distribution of power was changed was not dangerous in and of itself, but the fact that there was not a design for an orderly system upon which all elites could agree was very dangerous.

Second, Brzezinski expressed the view that the spillovers from the excesses of the financial sector culminating in the crisis of 2008 caused great losses for many across the planet. The ugly nature of the way public balance sheets were used to keep the financial system from collapsing, while perhaps necessary, appears to have ignited the rage of the body politic in many parts of the world, perhaps most importantly in the United States, which has been the lynchpin of the world economy in the previous epoch.

One need not argue over whether the bailouts were necessary. I believe they were. But as they say, there are ways, and there are ways—and the most recent episode was a way that inflamed the public. We have been through an episode in which we made the abused body politic pay the perpetrators, rather than proceed as we did during the savings & loan bailout, where wiping out or dilution of stock, changing management, criminal prosecutions, and restructuring of creditors dominated the resolution process. That the U.S. government, through the Troubled Asset Relief Program (TARP) and thereafter, seemed able to mobilize large-scale funds on very short notice and rescue the financial system was a good thing. That it seems able to do this only in response to, and on behalf of, a powerful financial elite has set in motion some very hostile psychology that is likely to heighten our sense of Knightian uncertainty for a long time to come. This process is exacerbated further by the austerity efforts at the state and local level in early 2011. To cut school days and health care as a result of a sovereign debt crisis generated to protect bank creditors gives new meaning to the notion of crowding out. As Amartya Sen illustrated in a convening of economic historians at Harvard in the spring of 2010, to extend the bailouts was a cooperative game in the sense that we lost less than was possible. Yet the distribution of the burden of moving us to the cooperative outcome sowed the seeds of distrust for the repeated games of governance that would follow. The financial leaders made a very strong and accurate case that they must be rescued because they could take the economy down with them. But this notion now stands in stark contradiction to the complacency that Wall Street leaders demonstrate with regard to persistent joblessness

Table 1

Government Policies Seen as Doing Little for the Poor, Middle Class, and Small Businesses

Gov't econ policies have helped . . .	A great deal %	A fair amount %	Not too much/ not at all	Don't know
Large banks and financial institutions	53	21	18	8 = 100
Large corporations	44	26	20	10 = 100
Wealthy people	31	26	30	12 = 100
Poor people	7	24	64	5 = 100
Middle-class people	2	25	68	4 = 100
Small businesses	2	21	68	8 = 100

Source: Pew Research Center/*National Journal*, July 15–18, 2010.

in the United States and the resistance that they exhibit to financial regulation proposals that would restrain their capacity to spill over onto the real economy in the ways they acknowledged during the depths of the crisis. It appears to the public that Washington is very responsive to Wall Street and that we are "all in this together" only when the financial sector is in extreme jeopardy.[8]

One can see some of what Brzezinski was referring to by looking at the recent polling on the impact of U.S. government policies conducted by the Pew Foundation in July 2010. Tables 1 and 2 make the point.

After the creditors of heavily leveraged financial institutions were bailed out and the public balance sheet was expanded to stem the financial crisis, we are now entering a period when many people are rebelling against further use of the public balance sheet to support anything, including the real economy via infrastructure repair or other forms of stimulative deficit spending. In a sense, the rise of the debt/GDP ratio in the United States and other developed countries, coupled with the particularly difficult digestion of the distributional nature of the bailouts, has damaged the public's trust in the capac-

Table 2

Who's Been Helped by Economic Policies?

Percent who say each has been helped a great deal/fair amount by the federal government's economic policies since 2008

	Total %	Rep. %	Dem. %	Ind. %	D – R diff.
Wealthy people	57	45	67	58	+22
Middle-class people	27	16	37	28	+21
Small businesses	23	14	35	21	+21
Large corporations	70	61	74	74	+13
Poor people	31	33	33	29	0
Large banks and financial institutions	74	75	73	77	–2

Source: Pew Research Center/*National Journal*, July 15–18, 2010.

ity of government to manage the economy. It has reinforced in the mind of the citizens Ronald Reagan's alarmist if effective claim that government is the problem, not the solution. At a time when persistent unemployment is near 10 percent in official numbers, and those not working are a far greater percentage of the potential workforce, it would seem an obvious time to rebuild infrastructure and to use public expenditure to rebuild infrastructure to catalyze an emergence from the slump. Following the lessons of the Great Depression and the example of the New Deal, one would think we would have a broad social consensus for such action. Yet such an assumption does not take into account the deterioration of trust we have experienced or the success of persuasive forces in denigrating the capacities of government.[9]

Harold James, a historian at Princeton University, has written in his most recent book of how the deterioration of trust following a financial crisis renders government-centered efforts impotent.[10] Not only is economic value destroyed in the acute downturn of the economy, but the capacity to function as a society experiencing market dysfunction is devastated as well. Human values are destroyed along with economic value. James likens the crisis of 2008 to the banking crisis in Germany

in 1931, and in his previous work on the German slump in the 1920s and 1930s, he studies how parliamentary and interest group struggles lead to extreme government paralysis and dysfunction.[11]

One locus of the dysfunction is the federal budget, and the problem may be civil, not just financial. Asset management consultant Robert Dugger, in testimony before the National Commission on Budget Responsibility and Reform, expressed the view that budgets are only in part about money.[12] They express the fabric of civil commitments that citizens have made to one another over many decades. Those commitments—public safety, education, good roads, freedom from government overregulation, and reasonable taxes—are built into local, state, and federal budgets. People organized their families and businesses around these commitments. The very slowness with which they accumulated and were reaffirmed year after year in budget legislation attested to their firmness and reassured people they could safely organize their lives around them.

For Dugger, a budget crisis is a crisis not because there is not enough money but because the fabric of our society is being ripped apart, threatening families and businesses. To restore trust and assure voters that the fabric of society will be preserved, a commitment must be found—a commitment so compelling that if voters can be assured this commitment will be met, they will be agreeable to adjusting and to constructing a new fabric of civil relationships peacefully and cooperatively.

The economic and budgetary dysfunction we are seeing in the United States is in some ways similar to James's scenario. The impending loss of trust in government, and the anti-incumbent nature of the current popular sentiment, has put the Obama administration into a much weaker position since the November 2010 election. However, it must be said that this is not a simple Democrats vs. Republicans issue. Within the Democratic Party, this debate is raging all by itself.

Many economists are currently engaged in the fight over the magnitude of the Keynesian multiplier and other rituals about the efficacy of fiscal policy. The body of evidence, I believe, suggests that it is at times like these, with lots of slack in the economy, that the impact of

fiscal spending can be quite significant—that is, the multiplier can be quite large. Yet that is not the fight that I believe is really taking place. The "small multiplier" economists are just the current intellectual advance troops of the major fight in the United States about the size and role of government. Whether or not government stimulus works, and whether or not infrastructure augments productivity and private investment is crowded in or out, is of little consequence to those who, as a matter of philosophy, do not want to see government play a major role in the economy. They are willing to endure the seemingly unnecessary short-term pain of a slump to purge American society of the dreaded government in the longer term.

This is a major conflict, and with the Republicans having gained ground in November, we are likely to see this fierce battle continue. The stalemate will, in the sense of Kindleberger, likely render the central reserve-currency country of the international monetary system more unstable because the essential degree of freedom of fiscal policy that must now be used to maintain aggregate demand in light of interest rates being at the zero lower bound will be unavailable as the "conflict of visions" in the United States plays out. In the following section I argue that this stalemate will make the international monetary system very unstable and uncertain. A look at Europe and its similarly vigorous efforts at fiscal consolidation implies that the alternative to the dollar, the euro, is unlikely to be able to assume a role to help balance the system either.

The International Monetary System Dysfunction

The world economic structure since World War II has been based on a regime of export-led growth to the United States. The American market has been the buyer of last resort. The rise in private indebtedness of U.S. households on the back of the housing boom and the decline of the U.S. savings rate gave that structural system a transient burst of energy that came to a halt with the crisis of 2008. More ominous is the reality that expanding consumer spending was accompanied by declining real incomes for many Americans as any given dollar of income was supported by more and more credit.

At the same time, our open free trade system has favored outsourcing and offshoring of key elements of the production process, which tended to put downward pressure on wage and compensation growth. This pressure on American consumers surged at the time of the North American Free Trade Agreement (NAFTA) and accelerated with the development of China and India in recent years. This contradicts the long-term notion of U.S. consumers' being able to sustain their role as the buyer of last resort. Compression of incomes for large portions of the U.S. population that resulted from competition with low-wage regions of the world was incompatible with the maintaining the vitality of U.S consumption and export-led growth for everyone else. For a time, the credit innovations delayed a reckoning, but that systemic contradiction is now exploding into full bloom with the collapse of the consumer credit pump. This shock to the pattern and magnitude of global aggregate demand is, to my mind, the fundamental deflationary impulse that the world is now ill equipped to address. We were dependent on this structure of trade—export-led growth to the United States—for a very long time, and the financial debt bubbles suggest that we are not in a typical cyclical situation. It will take many years to rebalance the system, and that altered trajectory is now very stressfully beginning to work itself out.

Some economic commentators have seen on the distant horizon that a rebalancing of demand in the emerging markets involving less export-led growth and more domestic development and spending is the path to harmonization of the world system. Unfortunately, the components of aggregate demand are not quite so protean in any significantly shorter time frame. Regimes that are predicated on export-led growth involve a system of tax, subsidy, regulation, and other structural priorities that are not easily altered. Vested interests are well dug in. It often requires a drastic realignment of domestic politics to shift from export-led growth to domestic-driven growth or vice versa. Powerful groups within the domestic political economy are put into conflict with each other. The timing of the resolution, no less than the shape of the outcome itself, is not at all clear.[13]

That is the dimension of uncertainty that the international mon-

etary system is coping with as we look toward the future. One could see that the scale of imbalances, as measured by the degree of reserve accumulation in the surplus countries, has been soaring. With the U.S. dollar having many features that have given it the dominant structural role as the reserve currency, most importantly the broad, deep, and transparent government bond market with the availability of the full spectrum of maturities, much of the reserve accumulation was recycled to the U.S. dollar and the U.S. Treasury market in particular.

For several years, particularly since the end of the Asian crisis in the late 1990s, rising surpluses (U.S. deficits) and the recycling of surpluses back into dollar-denominated securities served to raise the foreign exchange value of the dollar and added a deflationary impulse to aggregate demand in the United States. The Federal Reserve was able to offset this by lowering interest rates to manage its mandate of full employment and price stability.[14] In analytical terms there is an iso-demand curve in exchange rate/interest rate space that led to a combination of a stronger dollar and lower interest rates to keep the U.S. macroeconomic system in a distorted form of balance. An overvalued dollar, weak tradable-goods sectors, and low interest rates with booming housing and consumer durable expenditures has been the structure of American demand. Large private imbalances with a dearth of savings, rising government deficits, and large current-account deficits have been the American pattern.

That ability of the Federal Reserve to act as the balancing agent has come into question now, with interest rates at effectively zero. The collapse of the securitization and consumer finance markets in the United States has damaged the U.S. buyer-of-last-resort system of world commerce and has set in motion a game of passing around the deflationary hot potato in the international monetary system. Deficient demand worldwide is being redistributed. The mercantilist tendency around the world of exporting deflation through exchange-rate management often then cycles back to the U.S. economy, but the Federal Reserve is unable to offset this now at the zero lower bound

of interest rates. As the European tensions over Greece and the other peripheral countries came to the fore early in 2010 and showed how inferior the credit market structure of Europe is relative to the sovereign debt market of the United States (and Japan), the upward pressure on the dollar was compounded for a time and could not be offset with lower interest rates.

The deflationary shock to U.S. aggregate demand, emanating from beggar-thy-neighbor exchange-rate policies and the self-insurance behavior of surplus countries that leads to reserve building could theoretically be offset by the instrument of macroeconomic policy-fiscal expansion. A larger public works infrastructure project for the U.S. economy could accomplish this if the political consensus were to exist to support it, and that program could permit the United States to absorb some deflationary shock and could buy time for the transformation of the world economy. Fiscal policy could be the residual balancing element that monetary policy has been, and can no longer be, at the zero lower bound, in response to the accumulation of dollar reserves by foreign governments. Yet in the current gridlock and conflict over the role of government in the United States, that component of aggregate demand cannot be as responsive as needed to mitigate deflationary impulses.

The recent efforts of the Federal Reserve to engage in quantitative easing by the United States that has been widely covered in speeches and the media are a different type of adjustment mechanism, and a U.S.-only quantitative-easing initiative may be tantamount to exporting deflation from the United States to the rest of the world.

At a deeper level, this international monetary dysfunction and the management of nominal exchange rates by many of the mercantilist-minded, export-led growth economies may be tantamount to letting real variables adjust via inflation differentials rather than nominal exchange rates. Efforts to resist exchange-rate appreciation may lead to rising asset price inflation and eventually goods price inflation in some of the surplus nations. Suffice it to say that in the present situation, China, Japan, Germany, and many of the rising countries

of Asia cannot all be export-led growth-surplus countries when the United States grinds down to moderate deflation as a result of the retrenchment of the household balance sheet as the paradox of thrift tightens its grip on the frightened U.S. citizen. Inflation in the emerging markets and deflation in the developed world are the results of this dysfunctional exchange-rate pegging and reserve accumulation system that strives to protect the export strength in the emerging world, which continues to accumulate a "self-insurance" war chest of reserves to protect the emerging countries from the violence of the international capital markets.

Both sides of the saddle I mentioned earlier are before our eyes simultaneously: deflation in the developed world and bubble-building inflationary forces in the emerging countries that defend their export sector. In addition, the tendency of the large developed countries to issue private and sovereign debt to ward off deflation may at some point lead to a drive for inflation to lighten the burden that those stocks of debt represent. Overall, it is unlikely that this system of imbalances will alleviate the uncertainty that breeds caution. It is also likely that fear and caution will lead to investment behavior that alleviates structural uncertainty. We will likely require both political and financial leadership that is currently in short supply before we can move to a systemic logic that transitions from the Dark Knightian anxiety of uncertainty and sheds light on a path that coheres around resumed growth and employment around the world.

Sovereign Wealth Funds: A Collective Paradox of Risk Aversion?

Can an international monetary system withstand such large flow imbalances as we have seen in the past ten years on an ongoing basis? And can the system cope with a recycling of imbalances of these magnitudes into the riskless asset? Writers such as Charles Dumas of Lombard Street Research, in his new book *Globalization Fractures*, suggest that the key to adjustment in the face of the deficient aggregate demand caused by the exhaustion and retrenchment of the American consumer must take

two dimensions. First is the reduction of the scale of those imbalances. Second is a cessation of the degree of risk aversion among those investing what imbalances do remain to be recycled.[15]

To alleviate what Ricardo Caballero refers to as excess demand for safe assets, several responses can be pursued.[16] First, the sovereign wealth funds could directly invest in more risky assets. They could move into equity or even direct investments in greater proportions. Obviously, given the sheer size of their investment capacity, it would entail some loss of liquidity. It would also involve what might be a good long-term investment in human capital at those institutions to assess more complex or information-intensive asset classes internally.[17]

Second, the U.S. government could intermediate and buy riskier assets or make direct investments with the proceeds of its bond sales to the surplus countries. This would be somewhat difficult to achieve, given the American aversion to belief in the ability of the government to allocate capital efficiently. Though an infrastructure bank could be developed with a private sector board and experienced financiers to provide the needed risk-transformation services, it would likely face steep opposition from those who are enraged by the coexistence of the government-sponsored enterprises Freddie Mac and Fannie Mae in the aftermath of the housing-related crisis. Setting up new government institutions to intermediate credit is likely to be a difficult task when the losses on the balance sheet of Freddie and Fannie become more and more evident to the public in the coming months.[18]

Third, a public guarantee could be issued to support private risk-transformation services on a large scale. This pathway is likely to be complicated by public aversion to giving any more support to the well-paid executives of financial institutions who were paid with taxpayer funds to clean up the mess that they made. Beyond the politics, there is also the question of whether investors would support these institutions that have lost a great deal of the world's confidence in the aftermath of the crisis of 2008 if they were to embark upon a new aggressive program to provide risk-transformation services.[19]

Conclusion: Can We Break Out of the Paradox of Risk Aversion?

I believe that we are on an unsustainable path and that the United States will not, despite the logic of possibility, be able to provide the balancing role for the international monetary system in the coming period. Perhaps the best we can hope for is a system in which the United States does not suffer the deflationary consequences of the mercantilist competition of the surplus countries and uses monetary policy to reexport deflation. But as I watch the debates favoring austerity in the United States and Europe, and I envision central banks in the developed world pumping more liquidity into the system in response to U.S. quantitative easing, I can imagine this collective, reactive effort as one that builds an even bigger bubble in asset and commodity markets to try to induce a wealth effect that stimulates consumption. That process seems to be well under way, and it has reduced the cost of debt services while encouraging an ever greater mountain of debt when business, household, and government debts are added together.

What is needed in the developed countries is not bubbles or austerity but a policy constellation directly targeted on investment spending, human capital investment, modernization of the supply side, and a focus on productivity growth to inspire confidence that the sovereign-debt-to-GDP ratios can be managed sustainably and be consistent with ecological concerns. It is on that trajectory, rather than on one of austerity, that we can restore confidence. The question is: Who will make the first move in that direction if the U.S. government cannot because of its peculiar struggles? Perhaps this time the bold endeavors will emanate from a new leadership coalition that uses the growing sophistication of the sovereign wealth funds as the vanguard of constructive change.[20]

Notes

1. A sovereign wealth fund (SWF) is a state-owned investment fund composed of financial assets such as stocks, bonds, property, precious metals, or other financial instruments. Sovereign wealth funds invest globally.

2. See Ben Bernanke, "Irreversibility, Uncertainty, and Cyclical Investment," *Quarterly Journal of Economics* 98, no. 1 (February 1983): 85–106.

3. See the writings of Perry Mehrling on this question, in particular his paper "The Global Credit Crisis and Policy Response," 2009, www.econ.barnard.columbia.edu/faculty/mehrling/Global_Credit_Crisis_and_Policy%20Response.pdf.

4. See "The Ghost of Bancor," February 10, 2010, www.uclouvain.be/cps/ucl/doc/triffin/documents/TPS_EN_finale_clean.pdf.

5. Alan Greenspan, the former chairman of the Federal Reserve, has recently written "Activism" (*International Finance* 14, no. 1 [spring 2011]), in which he draws the conclusion that the uncertainty is created by government actions. I believe that his assertion confuses coexistence with causation. Like him I would argue that the reluctance to engage in irreversible capital investment is the result of uncertainty. Where I would disagree with him is in attributing this to the causal role played by government intervention. While government intervention does have the capacity to generate uncertainty, I would see the recent government policies in the credit markets and goods markets as a response to the uncertainty-induced reaction of the private markets because of the contradictions of a dysfunctional global system that is deleveraging and experiencing the withdrawal of the U.S. consumer as the buyer of last resort. Unlike Greenspan, I see the response of the government as a constructive attempt to grapple with this transition and believe that the absence of which would deepen the dread, exacerbate the downturn, and increase the velocity of deflationary deleveraging. Unlike Greenspan, I see no evidence that firms operating well below their level of full-capacity utilization would be on the cusp of investing were government efforts to sustain demand withdrawn. I see very little convincing evidence of a capacity for "crowding in" of private investment when the economy is in a slump with many idle resources.

6. See Charles P. Kindleberger, *The World in Depression, 1929–39* (Berkeley: University of California Press, 1986). The culminating argument of the book is available at www.mtholyoke.edu/acad/intrel/depress.htm.

7. Zbigniew Brzezinski, speech delivered at the Council on Foreign Relations, May 18, 2010, http://dailybail.com/home/nwo-exposed-in-cfr-speech-brzezinski-warns-political-awakeni.html.

8. This bold revelation of where power lies in U.S. society is reminiscent of the forebodings of Herman Melville, who warned of the discouragement of society when it was starkly revealed that society did not operate according to the democratic premise that "all men are created equal." Melville's poem "Clarel," written late in his life, explored these tensions. William Sloane Coffin, the American theologian, also referred to Melville when he wrote:

> But today, because we have so cruelly separated freedom from virtue, because we define freedom in a morally inferior way, our country is stalled in what Herman Melville call the "Dark Ages of Democracy," a time when, as he predicted, the New Jerusalem would turn into Babylon, and Americans would feel "the arrest of hope's advance." (Ralph Nader interview with William Sloane Coffin, *Counterpunch,* October 19, 2005, www.thewe.cc/contents/more/archive2006/april/finish_the_job.htm)

9. The notion of persuasive forces that may or may not be creating perceptions

that corresponded to "Truth" is explored in great detail by George Soros in his Budapest Lectures (*The Soros Lectures at Central European University* [New York: Public Affairs Press, 2010]) and in "What I Did Not Know: Open Society Reconsidered," in *What Orwell Didn't Know: Propaganda and the New Face of American Politics*, ed. Andras Szanto (New York: Public Affairs Press, 2007). Soros differentiates between the cognitive function, whereby learning the truth allows an individual to better understand and operate in the environment, and the manipulative function, the strategy of altering the perceptions of other people so that they advocate actions that make the manipulator better off.

10. See Harold James, *The Creation and Destruction of Value: The Globalization Cycle* (Cambridge: Harvard University Press, 2009). See, in particular, his chapter comparing 2008 to 1931 rather than 1929, as well as the concluding chapter.

11. See Harold James, *The German Slump: Politics and Economics 1924–1936* (Oxford: Oxford University Press, 1986). See also Walter Dean Burnham, "Political Immunization and Political Confessionalism: The United States and Weimar Germany," *Journal of Interdisciplinary History* 3, no. 1 (summer 1972): 1–30.

12. See Robert Dugger, "Testimony to the National Commission on Fiscal Responsibility and Reform," June 30, 2010, www.hanoverinvest.com/pdf/Testimony-FiscalResponsibilityCommission100630.pdf.

13. See Mancur Olson, *The Rise and Decline of Nations: Economic Growth, Stagflation, and Social Rigidities* (New Haven: Yale University Press, 1984).

14. For elaboration of this argument, see Martin Wolf, *Fixing Global Finance* (Baltimore: Johns Hopkins University Press, 2010).

15. See Charles Dumas, *Globalization Fractures: How Major Nations' Interests Are Now in Conflict* (London: Profile Books, 2010).

16. See Ricardo Caballero, "The 'Other' Imbalance and the Financial Crisis," MIT Working Paper 9/32, 2009, http://papers.ssrn.com/s013/papers.cfm?abstract_id=1529764/.

17. An intermediate step would be for sovereign wealth funds to invest in existing hedge funds and private equity funds on a larger scale to put money in the hands of the expertise in the private sector that currently exists. Evidence from those industries suggests that sovereign wealth funds have embarked on this direction. It must be said this is not a complete substitute for developing in-house capabilities, as the sophistication to monitor and select hedge funds and private equity firms on an ongoing basis does require expertise as well.

18. On the role of Freddie and Fannie in the crisis, see Thomas Ferguson and Robert Johnson, "Too Big to Bail: The 'Paulson Put,' Presidential Politics, and the Global Financial Meltdown," *International Journal of Political Economy* (spring 2009): 3–34; (summer 2009): 5–45.

19. On U.S. balance of payments and transformation services, see Caballero, "The 'Inner Balance"; Helene Rey and P. O. Gourinchas, "From World Banker to World Venture Capitalist: The U.S. External Adjustment and the Exorbitant Privilege," in *G7 Current Account Imbalances: Sustainability and Adjustment*, ed. Richard Clarida (Chicago: University of Chicago Press, 2007), 11–55.

20. For a number of examples of system-changing, large-scale, productivity-enhancing government investment programs, see Felix Rohatyn, *Bold Endeavors* (New York: Simon and Schuster, 2009). For more on the U.S. budget challenge, see

Joseph Stiglitz, "Principles and Guidelines for Deficit Reduction," and Thomas Ferguson and Robert Johnson, "A World Upside Down? Deficit Fantasies in the Great Recession," 2010, www.rooseveltinstitute.org/Dec_2_Discussion#Synopsis/.

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