

Policy Brief

NUMBER PB10-3 FEBRUARY 2010

Confronting Asset Bubbles, Too Big to Fail, and Beggarthy-Neighbor Exchange Rate Policies

Morris Goldstein, Dennis Weatherstone Senior Fellow at the Peterson Institute for International Economics

Morris Goldstein, Dennis Weatherstone Senior Fellow since 1994, has held several senior staff positions at the International Monetary Fund (1970-94), including Deputy Director of its Research Department (1987–94). He has written extensively on international economic policy and on international capital markets. He is the author of Managed Floating Plus (2002), The Asian Financial Crisis: Causes, Cures, and Systemic Implications (1998), The Case for an International Banking Standard (1997), The Exchange Rate System and the IMF: A Modest Agenda (1995), coeditor of Debating China's Exchange Rate Policy (2008), Private Capital Flows to Emerging Markets after the Mexican Crisis (1996), coauthor of The Future of China's Exchange Rate Policy (2009), Controlling Currency Mismatches in Emerging Markets (2004), Assessing Financial Vulnerability: An Early Warning System for Emerging Markets (2000), and project director of Safeguarding Prosperity in a Global Financial System: The Future International Financial Architecture (1999).

Paper based on remarks delivered on December 15, 2009, at the workshop on "The International Monetary System: Looking to the Future, Lessons from the Past" sponsored by the International Monetary Fund and the UK Economic and Research Council.

Note: I am indebted to C. Fred Bergsten, Nick Lardy, Ted Truman, and Steve Weisman for helpful comments on an earlier draft.

© Peter G. Peterson Institute for International Economics. All rights reserved.

I. INTRODUCTION

When pondering desirable reforms, I prefer to think about both the international financial system and the international monetary system because as this global crisis demonstrates so vividly, the root causes can come from both the financial and the monetary spheres and they can interact in a variety of ways. On the financial side, I want to emphasize two problems: pricking asset price bubbles before they get too large, and confronting "too big to fail." On the monetary side, I want to concentrate on what can be done to discourage "beggar-thyneighbor" exchange rate policies.

II. REFORMING THE INTERNATIONAL FINANCIAL SYSTEM

Any credible story about the origins of this crisis has to give a role to easy credit conditions, a rapid run-up in housing and equity prices, and broad mispricing of risk. Recall, however, that the precrisis orthodoxy, at least in central banks, was that it was unwise and unnecessary to ask central banks to attempt to prick asset price bubbles—on at least three counts.1 First, they have no reliable methodology for, or comparative advantage in, identifying such bubbles. Second, even if they could identify such bubbles, the short-term interest rate was not a good instrument for pricking such bubbles: after all, small increases in rates would have little effect and large increases would generate too much collateral damage to the economy as a whole. Third, preemptive action was unnecessary because once such bubbles burst on their own, the mess could be cleaned up at relatively low cost by engineering a swift and sizeable decline in policy interest rates.

How has the crisis altered that orthodoxy? Clearly, the we-can-clean-it-up-cheaply-after-the-bubble-bursts-with-low-interest-rates argument can be discarded (at least for cases where the buildup of the bubble involves significant leverage). Challenges to the we-can't-identify-bubbles-beforehand argument have also been given some increased support from the crisis. Reflecting research done at both the Bank for International Settlements and the International Monetary Fund (IMF), twin threshold early-warning models of banking crises that identify tail observations on both excess credit growth and increases in housing and/or equity prices—as well as stud-

^{1.} See, for example, Greenspan 2002.

^{2.} See Gagnon 2010 on why leverage matters for the cost of collapsing asset price bubbles.

ies that examine the relationship between indices of financial stress and economic downturns—look more relevant and promising than before the crisis (see Borio and Drehmann 2009 and Lall, Cardarelli, and Elekdag 2008). If it remains difficult to identify bubbles before they get too large, the message now to both central banks and regulatory authorities is: "I know, but try much harder."

I prefer a "belt and braces" approach to confronting too big to fail because none of the individual policy prescriptions by itself is likely to be effective enough (or perhaps saleable enough) on its own to solve the problem.

Last but not least, the crisis should prompt us to consider a better bubble-busting tool kit. As my Peterson colleague Adam Posen (2009) put it in a recent paper, if one is faced with a leaky showerhead but has only a hammer, you are in a fix: small taps will do nothing, while a strong rap may break the pipe. What you need is duct tape for small leaks and a wrench for large ones. But what will serve as the duct tape and the wrench? I would say that the gathering consensus is that the duct tape and the wrench should be countercyclical changes in some combination of regulatory capital (risk weighted and unweighted) and regulatory liquidity requirements, margin requirements, loan-to-value ratios on residential and commercial mortgages, and lending standards. In a recent report of the Pew Task Force on financial regulatory reform (Pew 2009)—of which I am a member and signatory—the decision of when to activate such macroprudential instruments and which combination to use would be made (in the United States' case) by a systemic risk oversight council composed of the central bank, the Treasury, and the leading regulatory authorities; it would then be implemented by the regulatory authorities. In some cases, the central bank would also "lean against the wind" by raising interest rates; in other cases, it might not. Yes, such macroprudential actions run the risk of killing off some expansions too soon, but they also hold the promise of avoiding severe collapses like the present one. I think it's well worth a try.

A second major problem highlighted by the current crisis is how to prevent more financial institutions from becoming "too big to fail" (TBTF), how to shrink the existing TBTFs, and how to resolve in a more orderly way the systemically

important institutions that are allowed to fail. Put in other words, how to have fewer Citigroups, and how to avoid both AIG and Lehman Brothers replays. Here too, I think we are going to need a more extensive tool kit.

Some argue that the way to discourage TBTF and to internalize the externalities associated with bigness and complexity is to impose higher capital and liquidity requirements on financial institutions deemed systemically important relative to those not so designated. Let me be clear. I am strongly in favor of such an ex ante differential capital and liquidity assessment. At the same time, at least two observations from the current crisis are troubling. As noted by Herring (2010), the five largest US financial institutions subject to Basel capital standards that either failed or were forced into government-assisted mergers in 2008—namely Bear Stearns, Washington Mutual, Lehman Brothers, Wachovia, and Merrill-Lynch—each had regulatory capital ratios ranging from 12.3 to 16.1 percent as of their last quarterly disclosure before they were shut down; that is, their capital not only exceeded the regulatory minimums but also was much above the standard for "well-capitalized" institutions. In addition, capital-based triggers in the Federal Deposit Insurance Corporation's (FDIC) prompt-correctiveaction regime for banks have hardly been operating according to plan. Instead of a graduated corrective response followed by the closing of the bank when it still has positive net worth, some banks are seemingly descending from well-capitalized to insolvent in one blow-with unhappy consequences for the deposit insurance fund. These observations hint strongly that the market does not place much confidence in reported regulatory capital ratios, and that capital-based triggers for prompt-corrective-action (at least as presently defined) are not sufficient to carry out their intended functions.

But if capital requirements alone are not up to the task of discouraging too-big-to fail, what other policy instruments can be utilized? I can think of at least four.

One is to require all systemically important institutions to have wind-down plans that will assure the primary supervisor (and the college of supervisors) that it can be resolved without creating unacceptable spillovers.³ In cases where the institution is too large and complex to be wound down in a nonsystemic way, the supervisor would have the authority to require the institution to shrink and to become less complex.

A second key instrument is to ensure that special resolution authority exists for all systemically important financial institutions—be they banks or nonbanks—so that there is a viable alternative to the over-the-weekend massive

^{3.} Herring (2010) provides a useful outline how of such wind-down plans might operate.

government bailout of the failing firm. As Rodgin Cohen and I show in a recent paper (Cohen and Goldstein 2009), corporate bankruptcy is not a good substitute for such resolution authority because bankruptcy pays little attention to third-party effects that are the essence of systemic risk, because creditor stays—and their potential adverse systemic effects—are part and parcel of the bankruptcy process, because bankruptcy proceedings move too slowly to protect the franchise value of the firm, and because bankruptcy does not permit pre-insolvency intervention.

Policy instrument number three is to design resolution authority in a way that supports market discipline. This means wiping out shareholders, changing management, and paying off creditors at estimated recovery cost (not at par); whenever possible, it also means not selling⁴ the failing firm to one of the larger players in the field (what I call "opportunistic deconsolidation"); and it means funding the resolution authority in part with ex ante and/or ex post fees on other financial institutions so that the financial sector—not the taxpayer—pay's the lion's share of the costs.⁵

The fourth policy instrument would be to impose explicit size limits on systemically important financial institutions relative to GDP, as recommended by my Peterson colleague Simon Johnson (2009). When financial institutions become very large relative to a country's GDP, they become very expensive to bail out—a lesson learned the hard way by Iceland, Ireland, Switzerland, the United Kingdom, and the United States. There is no empirical evidence that there are economies of scale in banking beyond \$100 billion in assets. As Johnson (2009) notes, six large, integrated financial groups had combined assets equal to less than 20 percent of US GDP in the mid-1990s; today, their combined share of GDP is closer to 60 percent.

I prefer a "belt and braces" approach to confronting too big to fail because none of the individual policy prescriptions by itself is likely to be effective enough (or perhaps saleable enough) on its own to solve the problem. When you put them all together, however, you have a workable plan for confronting too big to fail. Yes, this comprehensive approach to confronting too big to fail is more interventionist than has been customary and it will mean that asset growth and probably profits in the larger firms will be lower than in the run-up to the crisis. But it will also mean that when there is a

collapse in a systemically important institution, you and I will pay less to clean up the mess.

III. REFORMING THE EXCHANGE RATE SYSTEM

Let me move next to the international monetary system. Here, I want to focus on one issue: what approaches are available to induce large, surplus economies to abandon now—and to avoid in the future—beggar-thy-neighbor exchange rate policies. I would argue that this is a highly relevant issue on at least three counts.

First, one of the lessons that emerging economies will take away from this global financial and economic crisis is that the world is even a riskier place than they thought and that they need more "insurance" to cope with it—including much higher levels of international reserves. If there are no international rules or guidelines on how they acquire those additional reserves, some countries will be tempted to acquire them by maintaining highly undervalued real exchange rates. Occasional special drawing rights (SDR) allocations, easier IMF conditionality, and larger IMF quotas are not likely to be sufficient to dissuade them from building reserves in the wrong way.

Second, if the budding global recovery is to be sustained, it will be necessary to engineer not only shifts in demand between the public and private sectors within countries, but also shifts in demand across countries. But if large economies now in surplus refuse to allow their real effective exchange rates to appreciate by any significant degree—or even worse, allow those rates to depreciate, external adjustment will be handicapped and prospects for a sustainable and balanced expansion will diminish (see, for example, Blanchard and Milesi-Ferretti 2009). In this connection, it is worth noting that real effective exchange rate of the RMB has depreciated by roughly 7 percent over the past year and that my Peterson colleagues Bill Cline and John Williamson (2010) reckon that the RMB remains undervalued by about 30 percent overall and by roughly 40 percent with respect to the dollar.

Last but not least, the past half dozen years have witnessed

^{4.} Johnson (2009) recommends that the size caps be 4 percent of GDP for commercial banks and 2 percent of GDP for investment banks.

^{5.} In this connection, I regard the "financial crisis responsibility fee"—just recently proposed by President Obama—as agood idea; see Goldstein 2010.

^{6.} Here, I very much agree with a recent statement of Kansas City Fed President, Thomas Hoenig, on confronting too big to fail: "Beginning to break them, to dismember them, is a fair thing to consider." See summary in Di Leo 2010.

^{7.} One place where I disagree with Blanchard and Milesi-Ferretti (2009) is on their characterization of "good" versus "bad" imbalances; given the large number of factors affecting saving and investment behavior, I do not believe this distinction will prove to be operational; in addition, their treatment underplays how the strength of global demand—particularly during a period of global recession—should affect assessments of exchange rate policy.

^{8.} Admittedly, the Cline and Williamson (2010) estimates of RMB undervaluation depend crucially on the estimated size of China's global current-account surplus in 2012; but even if that surplus turns out to be roughly half the size that Cline and Williamson estimate, the RMB would still be undervalued significantly (by 15 percent on a real effective basis).

at least one highly significant case of beggar-thy-neighbor exchange rate policy and a marked failure of Fund surveillance to confront it effectively. I speak, of course, of Chinese exchange rate policy. Since I have written frequently and at length on this topic over the past half dozen years (see, for

[0]ne of the lessons that emerging economies will take away from this global financial and economic crisis is that the world is even a riskier place than they thought and that they need more "insurance" to cope with it—including much higher levels of international reserves.

example, Goldstein 2004, 2006a, 2006b, and 2007, Goldstein and Lardy 2003, 2005, 2006, 2008, and 2009, and Goldstein and Mussa 2005), I can be relatively brief.

Between 2003 and 2007, China's global current-account surplus rose without interruption—from roughly 3 percent of GDP to about 11 percent. At the same time, China was engaged in massive, prolonged, one-way intervention in the exchange market and large-scale sterilization of those reserve increases as well. From February 2002 through the end of 2007, the cumulative real effective appreciation of the RMB was zero (JP Morgan index). The Chinese economy was growing briskly throughout this period (10 percent or more in each year) and was frequently overheated, with growth peaking at 14 percent in the second quarter of 2007. After that, there was some notable progress, but it proved to be short-lived. The real effective rate of the RMB appreciated by roughly 14 percent between November of 2007 and March 2009, and China's global current-account surplus declined to 9 percent in 2008 and has been projected to fall further to 5 to 6 percent of GDP this year. But the RMB has given back about 60 percent of its cumulative real effective appreciation (since June 2005) in the past 14 months and many believe that the fall in China's current-account surplus will be partially or even fully reversed as the global economy recovers. Exchange market intervention was still about 10 percent of GDP in both 2008 and in the first three quarters of this year. In a recent column, Martin Wolf (2009) of the Financial Times addresses these concerns and emphasizes both that a policy of keeping the exchange rate down is analytically equivalent to trade protectionism and that, judging by its reserve accumulation, China has "kept

its exchange rate down to a degree unmatched in economic history." Paul Krugman (2010), writing in the *New York Times*, concludes that "with the economy still in a precarious state, beggar-thy-neighbor policies can't be tolerated. Something must be done about China's currency."

While all this was going on, the Fund's surveillance of China's exchange rate policy has been abysmal. The Fund was very slow to acknowledge that the RMB was undervalued, it was very late in recognizing the size of this misalignment, and its forecast of China's global current-account imbalance has consistently been way off the mark—especially when that imbalance was increasing sharply. The Fund rejected the role of being a global umpire for the exchange rate system just when the international community needed that role the most. In my view, the Fund has been intimidated by the extreme sensitivity of the Chinese authorities to external criticism of their exchange rate policy, with the consequence that there has been no finding of manipulation despite strong evidence to the contrary, there have been no ad hoc consultations to China, and the publication of the Article IV reports for 2007 and 2008 have been delayed to an extraordinary degree. The argument that the Fund could not do more on bilateral surveillance because the 1977 surveillance guidelines (IMF 1977) were outdated seems even weaker today than when it was advanced in 2007 as a motivation for a new bilateral surveillance decision (see IMF 2007a). Branding an exchange rate "fundamentally misaligned" has proved to be no easier to implement for the Fund than identifying "manipulation," and in June 2009 the IMF management had to reverse course and withdraw not only the proposal to make increased use of ad hoc consultations but also the de facto application of the concept of fundamental misalignment itself (see IMF 2009).9 As my Peterson colleague Ted Truman concluded in a recent paper (Truman 2009) the 2007 surveillance decision "produced no tangible results affecting members' exchange rate policies." How a June 2009 staff guidance note (IMF 2009) could characterize the 2007 decision as "a landmark for the Fund"—rather than a landmine—is beyond me. One of my other Peterson colleagues Mike Mussa (2008) has analyzed in considerable detail the Fund's exchange rate surveillance toward China's exchange rate policies. His conclusion, offered in late 2007 at a Peterson conference, was as follows: "In my view, the IMF's approach to the application of surveillance to China's exchange rate policy constitutes gross misfeasance, malfeasance, and nonfeasance by the managing director and the IMF more generally." Speaking at the same conference and published in the same conference volume (Goldstein and

^{9.} Harking back to the introduction of this paper, the six-word version of this saga should be "surveillance decision for sale: never used."

Lardy 2008), Lawrence Summers (2008) offers the following assessment: "It is possible that Michael Mussa may have understated the case against the IMF in recent years. If one is to take seriously the notion that there is a global, multilateral agency tasked with the preservation of international financial stability ... the job that the Fund has done over the past four years is indefensible and the culture of the Fund, with respect to these things, needs to be radically altered." The 2007 report by the Fund Independent Evaluation Office (IEO-IMF 2007) on IMF exchange rate surveillance—going beyond the China case—was only slightly less scathing. The present managing director's recent comments on the undervaluation of the RMB are welcome but they are very small potatoes in this long-running saga. In short: Houston, we have a problem.

Three dimensions of the problem seem to me to warrant particular attention.

"The Fund rejected the role of being a global umpire for the exchange rate system just when the international community needed that role the most."

First, we need to find a way to make the Fund's engagement with members who have emerging exchange rate problems less subject to politicization and long delays. If it's going to take a year or two to negotiate the acceptance of an ad hoc consultation, that's not going to be a useful instrument.

Second, there needs to be a workable framework for the Fund's exchange rate surveillance that is capable of sending the message that the Fund staff and management not only view the country's exchange rate policy as ill-advised but also that this policy is inconsistent with the country's obligations as a member of the Fund and hence, that the policy has to be changed. I think the failure to implement the 2007 bilateral surveillance decision and the de facto "defanging" in June 2009 means there is now no such framework. All the Fund staff can convey now is an opinion on a country's exchange rate policy that carries no more of an opprobrium than anybody else's opinion. It's as if the jury in a trial provided a summary of its deliberations but declined in the end-because the defendant might become too upset—to issue a verdict. Some say that the Framework for Strong, Sustainable, and Balanced Growth agreed after the Pittsburgh G-20 summit in September 2009 (see G-20 2009)—will provide a superior framework for addressing global imbalances and the sustainability of the global expansion and that exchange problems can be better

tackled within that broader context. I sincerely hope that they are right and that this peer-review process where the Fund acts an advisor to the G-20 will work much better than the illfated 2006 Multilateral Consultation on Global Imbalances (involving China, the euro area, Japan, Saudi Arabia, and the United States); see IMF 2007b. Maybe this time it will be different because the memory of a deep global crisis will be fresh and because compromise will be easier to achieve within a G-20 setting than in either narrower or broader country groupings. Maybe. Yet my instinct tells me that there are apt to be too many degrees of freedom in this kind of policy coordination exercise to resolve inconsistencies between policy plans and policy objectives and to resolve conflicts across countries on how to share the burden of adjustment. Other than peer pressure, there is no disciplining mechanism for countries that don't undertake their "fair" share of adjustment. And I would be very surprised if this kind of wide-ranging policy forum will provide a hospitable environment to negotiate changes in exchange rate policies.

Problem number three probably represents the biggest existing hole. Currently, there is no workable, graduated set of penalties for countries that refuse persistently to honor their international obligations on exchange rate policy—particularly if they are large economies in current-account surplus. There has to be some credible penalty in the middle between the Fund's opinion on exchange rate policy (easily dismissed), and expulsion from the Fund for not honoring obligations under Article IV (too drastic to be useful). This problem has been recognized since the founding of the Fund but recent experience doesn't suggest that we are any closer to a solution.

If those are the problems, what could be the flavor of the solutions? Let me indicate the direction of my thinking.

Fund management should press the membership to agree that any country that runs a global current-account imbalance equal to or greater than say, 4 percent of GDP (over a one-year period) will automatically be receiving an ad hoc consultation from the Fund to discuss its exchange rate policy. Perhaps the threshold for systemically important economies should be set lower than that for nonsystemic ones under the argument that adverse potential international spillovers are greater for the first group. I have been skeptical of these kinds of mechanical triggers in the past, but the seemingly endless negotiations and politicization on this issue in recent years has persuaded me that even a highly imperfect trigger is better than a discretionary process that yields no official action at all. Also, an objective indicator would make it harder for individual countries to claim that they were unfairly being singled out for special attention. At present, the current-account imbalances

of four of the G-20 economies (South Africa on the deficit side, and Argentina, China, and Saudi Arabia on the surplus side) would be large enough to trigger the proposed ad hoc consultation procedure.

Turning to the framework for the Fund's bilateral surveillance over exchange rate policies, I see no alternative to going back to rulings/verdicts by the Fund on whether or not a country is meeting its international obligations on exchange rate policy. Unlike the Fund staff and management, I don't see such rulings/verdicts as "labels" that get in the way of a useful dialogue with members but rather as the very essence of what the Fund's responsibilities are as the designated international umpire for exchange rate policy. In broad terms, the test should

Fund management should press the membership to agree that any country that runs a global current-account imbalance equal to or greater than say, 4 percent of GDP (over a one-year period) will automatically be receiving an ad hoc consultation from the Fund to discuss its exchange rate policy.

be whether the country's real effective exchange rate is seriously misaligned, whether the country's policies—intentionally or not—contribute materially to that misalignment, and whether the misalignment harms significantly the country's trading partners. I don't much care what name one puts on this ruling, but the ruling should carry the message that the country's exchange rate policy has been found to be at variance with its Fund membership obligations, that this noncompliance must be eliminated in a timely way, and that, failing such a correction, the international community will have no choice but to impose penalties so as to protect the stability of the international monetary and trading system as a whole.

Finally, on the structure of the penalties or "teeth," I think they need to be graduated according to the extent and duration of the misalignment; they should also encompass a range of actions by the Fund and its members.

Consider, for example, the following three broad ranges of real exchange rate misalignment: category A would cover misalignments up to 10 percent and up to a year's duration; category B would address misalignments of 10 to 25 percent and 12–24 months' duration; and category C would pertain

to misalignments greater than 25 percent and lasting longer than two years. Category A misalignments would generate intensive but private consultations with the Fund.

Once an exchange rate misalignment entered category B, the Fund would go public in naming the country as not meeting its obligations on exchange rate policy as a member of the Fund and it would ask the member to offer a specific plan for reducing the misalignment. Category B countries would also not be able to delay the publication of Fund reports on their exchange rate policy. Finally, if a currency entered category C, a more severe set of penalties would be on the table. If the country were not willing to commit to a credible plan of action that would reduce significantly the size of the misalignment within a year's time, the World Trade Organization (WTO) would approve trade policy retaliation based on an exchange rate policy finding from the Fund. My Peterson colleagues C. Fred Bergsten (2009) and Arvind Subramanian with Mattoo (2009) have made some useful specific suggestions on how such IMF and WTO collaboration might take place. 10 Category C countries would also forfeit (temporarily) their eligibility for SDR allocations and for increases in their quota in the Fund.

Many will no doubt say that such a plan for reform of the Fund surveillance over exchange rate policies is both impractical and undesirable: impractical because less ambitious plans for a strengthening of Fund surveillance could not garner the requisite support of the membership, and undesirable because a purpose of the Fund is to open markets—not to authorize policies that would close markets. To them, I offer two replies.

This historic crisis presents an opportunity—for the first time in many years—for wholesale reform of the international financial architecture. IMF management has been bold in seeking real change in some dimensions of IMF operations but they have been a mouse on reform of exchange rate surveillance at the very time that the temptations for countries to follow beggar-thy-neighbor policies are growing. Yes, they have obtained agreement on the current set of watered-down bilateral surveillance guidelines and they have avoided antagonizing further some large members by dropping any "labels" on exchange rate policy from their reports. But what has been agreed has all the utility of a nonabsorbent dish towel. It offers no guide to what is and what is not internationally acceptable exchange rate policy; it finds no country guilty of misbehaving when the evidence to the contrary is by now overwhelming; it offers no incentives/penalties designed to change errant behavior; and it removes the one institution (the Fund) that could plausibly serve as a credible international umpire from a

^{10.} See also Hufbauer and Brunel 2008 for a more skeptical view of bringing the WTO into currency disputes.

policy arena that is rife with opportunities for breaking the rules and gaining market share at your neighbor's expense.

This historic crisis presents an opportunity—for the first time in many years—for wholesale reform of the international financial architecture.

On encouraging versus discouraging open markets, it is time to recognize three realities. First, a policy of persistent, large-scale, one-way intervention in exchange markets—paired with large-scale sterilization of reserve increases—aimed principally at preventing the real exchange rate from appreciating is protectionism. Second, relying exclusively on open-mouth operations and peer pressure to dissuade countries from continuing beggar-thy-neighbor exchange rate policies has shown itself to be ineffective. And third, when countries are faced with both persistent exchange rate protectionism on the part of their trading partners and an unwillingness and/or inability of the relevant international authority to take strong action to correct such behavior, the likely response will be the adoption of "vigilante" protectionist trade policies at the national level—particularly during a period of high unemployment rates. 11 Far better in that situation to have any such trade policy retaliation or compensation authorized by the IMF and WTO at the international level where its duration, scope, magnitude, and rationale can be appropriately controlled-much in the same way that WTO members are presently permitted to undertake compensating trade policy actions for trade policy abuses abroad under the current WTO regime.

REFERENCES

Bergsten, C. Fred. 2009. A Blueprint for Global Leadership in the 21st Century. Keynote speech at the Global Human Resources Forum, Seoul, Korea, November 4. Available at www.piie.com.

Blanchard, Olivier and Gian Maria Milesi-Ferretti. 2009. *Global Imbalances: In Midstream?* International Monetary Fund unpublished manuscript, Washington: International Monetary Fund (December)

Borio, Claudio, and Mathias Drehmann. 2009. Assessing the Risk of Banking Crises—Revisited. *BIS Quarterly Review* (March).

Cline, William R., and John Williamson. 2009. 2009 Estimates of Fundamental Equilibrium Exchange Rates. Peterson Institute for International Economics Policy Brief 09-10. Washington: Peterson Institute for International Economics.

Cohen, Rodgin, and Morris Goldstein. 2009. *The Case for an Orderly Resolution Regime for Systemically-Important Financial Institutions.* Pew Financial Reform Project Briefing Paper 13. Washington: Pew Financial Reform Project, Pew Charitable Trusts.

Di Leo, Luca. 2010. Fed's Hoenig Warns on Too-Big-to-Fail, Backs Glass-Steagall. Wall Street Journal Blog Real Time Economics (January 5). Available at www.wsj.com.

Gagnon, Joseph. 2010. *Monetary Policy and Asset Bubbles in 2010*. Peterson Institute for International Economics Real Time Economic Issues Watch (January 4). Available at www.iie.com.

Goldstein, Morris. 2004. *Adjusting China's Exchange Rate Policies*. Peterson Institute for International Economics Working Paper 04-1. Washington: Peterson Institute for International Economics.

Goldstein, Morris. 2006a. Renminbi Controversies. *Cato Journal* 26, no. 2 (spring).

Goldstein, Morris. 2006b. The IMF as Global Umpire for Exchange Rate Policies. In *C. Fred Bergsten and the World Economy*, ed. Michael Mussa. Washington: Peterson Institute for International Economics.

Goldstein, Morris. 2007. A (Lack of) Progress Report on China's Exchange Rate Policies. Peterson Institute for International Economics Working Paper 07-5. Washington: Peterson Institute for International Economics.

Goldstein, Morris. 2010. *Large US Banks Still Don't Get It.* Peterson Institute for International Economics Real Time Economic Issues Watch (January 19). Available at www.iie.com.

Goldstein, Morris, and Nicholas Lardy. 2003. Two-Stage Currency Reform for China. *Asian Wall Street Journal*, (September 12).

Goldstein, Morris, and Nicholas Lardy. 2005. China's Revaluation Shows Why Size Really Matters. *Financial Times* (July 22).

Goldstein, Morris, and Nicholas Lardy. 2006. China's Exchange Rate Policy Dilemma. *American Economic Review* 96, no. 2 (May).

Goldstein, Morris, and Nicholas Lardy. 2008. China's Exchange Rate Policy: An Overview of Some Key Policy Issues. In *Debating China's Exchange Rate Policy*, eds. Morris Goldstein and Nicholas Lardy. Washington: Peterson Institute for International Economics.

Goldstein, Morris, and Nicholas Lardy. 2009. *The Future of China's Exchange Rate Policy*. Washington: Peterson Institute for International Economics.

Goldstein, Morris, and Michael Mussa. 2005. The Fund Appears to be Sleeping at the Wheel. *Financial Times* (October 3).

Greenspan, Alan. 2002. Opening Remarks at Rethinking Stabilization Policy symposium sponsored by the Federal Reserve Bank of Kansas City, Jackson Hole, Wyoming, August 29–31

G-20 (Group of Twenty). *Leaders' Statement at the Pittsburgh Summit* (September 24–25). Pittsburgh. Available at www.g20.org.

Herring, R. J. 2010. *Wind-Down Plans as an Alternative to Bailouts*. Pew Financial Reform Project forthcoming Briefing Paper. Washington: Pew Financial Reform Project, Pew Charitable Trusts.

^{11.} In this connection, Krugman (2010) offers the following assessment: "The bottom line is that Chinese mercantilism is a growing problem, and that the victims of that mercantilism have little to lose from a trade confrontation. So I'd urge China's government to reconsider its stubbornness. Otherwise, the very mild protectionism it's currently complaining about will be the start of something much bigger."

Hufbauer, Gary, and Claire Brunel. 2008. The US Congress and the Chinese Renminbi. In *Debating China's Exchange Rate Policy*, eds. Morris Goldstein and Nicholas Lardy. Washington: Peterson Institute for International Economics.

IEO-IMF (Independent Evaluation Office, International Monetary Fund). 2007. *An IEO Evaluation of IMF Exchange Rate Policy Advice,* 1999–2005. Available at www.ieo-imf.org.

IMF (International Monetary Fund). 1977. Surveillance over Exchange Rate Policies. Available at www.imf.org.

IMF (International Monetary Fund). 2007a. *IMF Executive Board Adopts New Decision on Bilateral Surveillance over Members' Policies*. Public Information Notice 07/69 (June 21). Available at www.imf.org.

IMF (International Monetary Fund). 2007b. *IMF's International Monetary and Financial Committee Reviews Multilateral Consultation* (April 14). Available at www.imf.org.

IMF (International Monetary Fund). 2009. *The 2007 Surveillance Decision: Revised Operational Guidance*. Available at www.imf.org.

Johnson, Simon. 2010. Timely Message from Paul Volcker: "Wake Up, Gentlemen." Peterson Institute for International Economics Real Time Economic Issues Watch (December 15). Available at www.iie.com.

Krugman, Paul. 2009. The Chinese Disconnect. *New York Times* (October 23). Available at www.nytimes.com.

Krugman, Paul. 2010. Chinese New Year. *New York Times* (January 1). Available at www.nytimes.com.

Lall, Subir, Roberto Cardarelli, and Selim Elekdag. 2008. Financial Stress and Economic Downturns. In *World Economic Outlook, October 2008: Financial Stress, Downturns, and Recoveries.* Washington: International Monetary Fund.

Mussa, Michael. 2008. IMF Surveillance Over China's Exchange Rate Policy. In *Debating China's Exchange Rate Policy*, eds. Morris Goldstein and Nicholas Lardy. Washington: Peterson Institute for International Economics.

Pew Financial Reform Project. 2009. *Principles on Financial Reform: A Bipartisan Statement* (December). Washington: Pew Financial Reform Project, Pew Charitable Trusts.

Posen, Adam. 2009. Finding the Right Tool for Dealing with Asset Price Booms. Speech to the MPR Monetary Policy and Markets Conference, London, December 1.

Subramanian, Arvind, and Aaditya Mattoo. 2009. From Doha to the Next Bretton Woods: A New Multilateral Trade Agenda. *Foreign Affairs* (January/February).

Summers, Lawrence. 2008. Commentary. In *Debating China's Exchange Rate Policy*, eds. Morris Goldstein and Nicholas Lardy. Washington: Peterson Institute for International Economics.

Truman, Edwin. 2009. The International Monetary Fund and Regulatory Challenges. Peterson Institute for International Economics Working Paper 09-16. Washington: Peterson Institute for International Economics.

Wolf, Martin. 2009. Why China's Exchange Rate Policy Concerns Us. *Financial Times*, (December 8).

The views expressed in this publication are those of the author. This publication is part of the overall programs of the Institute, as endorsed by its Board of Directors, but does not necessarily reflect the views of individual members of the Board or the Advisory Committee.