INTERNATIONAL MONETARY FUND

CONSOLIDATED SPILLOVER REPORT

IMPLICATIONS FROM THE ANALYSIS OF THE SYSTEMIC-5

July 11, 2011

OVERVIEW

Spillover reports explore the external effects of policies in five systemic economies based on the issues identified by partners. Without reprising all the results (Box 1) and nuances, this paper draws some overarching lessons from the exercise for the global policy debate:

- Short-term policy spillovers hinge on their effects on financial markets. When the financial system is stressed and there is fiscal space, as in 2008-09, macroeconomic stimulus makes sense and yields significant positive spillovers.

- But this is no longer the case once fiscal space recedes. The external demand spillovers from fiscal consolidation in advanced economies would be small in comparison to those that would follow from compromised fiscal credibility.

- Given the importance of financial channels in the propagation of global shocks, and the centrality of US-UK-European financial core, stronger and more coordinated regulation in the core is essential.

- China and Japan spillovers are mostly expressed through real channels that take longer to play out but failure to address stresses and distortions can reverberate globally; Japan's fiscal strains could, however, propagate rapidly via financial channels.

- National and global goals are generally aligned insofar as the above policies mitigate global tail risks. However, different cyclical positions create tensions and tradeoffs. For example, the promotion of lending and risk taking through easy monetary policy makes sense in sluggish advanced countries but has complicated macroeconomic stabilization in booming emerging markets.

- The task of using spillover analysis to formulate global policy prescriptions, based on how policies interact and add up, is one for the Fund's multilateral surveillance to put before senior policy makers at forums such as the IMFC and G20.

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CONTENTS

I. CONTEXT ____ 3
II. IMPLICATIONS FOR POLICIES ____ 3
III. IMPLICATIONS FOR GLOBAL COLLABORATION ____ 6
IV. CONCLUDING THOUGHTS ____ 9

Box 1. Main Messages from the Five Spillover Reports

- With US shocks transmitted mainly via financial channels, strong regulation, supervision, and cross-border cooperation are crucial. But as the specifics of implementing the Dodd-Frank law are still unclear, there is a high risk of regulatory arbitrage.
- Looking back, QE1 yielded larger effects on foreign bond yields and currencies than QE2, reflecting the more stressed financial conditions in 2009. Looking ahead, the main risk from monetary exit is that expected tightening will reverse the rise in emerging market (EM) capital inflows and currencies.
- Fiscal consolidation has manageable negative growth spillovers in current conditions and arguably tackles a key global tail risk by enhancing US fiscal credibility.

- Direct spillovers from stress in Euro Area (EA) program countries are manageable.
- But if this stress were to cast doubt on the soundness of core EA banks, the spillovers to the rest of the world would be large—in many cases as large as after Lehman (and now with less policy space).
- EA fiscal consolidation has only minor contractionary demand effects on the rest of the world. The impact could even be positive if it lowers the high risk premiums on sovereign debt in many EA countries.

- A disruption to China's so-far-steady growth, including from stresses in its unbalanced growth model, hurts partners and commodity producers.
- Currency appreciation alone yields only modest growth spillovers. Significant positive spillovers require broader reforms to cut savings and raise depressed factor costs.
- Reserve build up may be pushing down advanced country yields and hence capital out to EMs, though the effect is likely smaller than from other push and pull factors. It is otherwise unclear if China's closed capital account is diverting capital flows to EMs.

- The UK financial system is key to global stability, requiring a top notch regulatory and supervisory regime. There would be a potential for adverse spillovers if the UK were prevented by pan-EU rules from adopting a suitably ambitious regime.
- Tighter liquidity, capital, and leverage rules, and macro-prudential policies, would lower systemic risk. However, liquidity self-sufficiency requirements can lead to costly trapped pools of liquidity in the absence of cross-border protocols and understandings.
- Given the risk of regulatory arbitrage, the UK needs to be vigilant to not become a magnet for risks regulated out of other jurisdictions, e.g., on derivatives trading and on the application of leverage limits.

- Supply chain disruptions from Japan's recent earthquake are transitory.
- Spillovers from fiscal consolidation are mild, especially if accompanied by structural reforms, and mostly confined to Asia.
- The bigger risk is a souring of confidence in sovereign debt, which could hit other high debt countries.

I. CONTEXT

1. Spillover reports explore the external effects of policies in five systemic economies: China, Euro Area, Japan, United Kingdom and the United States. They articulate the concerns of partner countries (rarely done at the Fund), quantify the external effects (sometimes done), and foster multilateral dialogue (regularly done but with limited traction). Spillover reports fill a gap between the domestic focus of country/bilateral surveillance (Article IVs) and the broad sweep of global/multilateral (WEO-GFSR) surveillance.

2. In setting expectations for the exercise, however, it is equally important to be clear about what spillover reports are *not*. They are not a recipe for global coordination at the level of the Fund's Executive Board or the IMFC. They are not a substitute for multilateral processes in other venues tackling issues of long-term sustainability, such as the G-20 Mutual Assessment Process. And they are not a surrogate "Multilateral Consultation" of the sort convened by the Fund in 2006 to broker policy commitments to resolve global imbalances. Still, spillover reports do have implications for such efforts, bringing granularity to the Fund's analysis and policy advice, and taking up the most immediate concerns of participants. Thus, the US spillover report details the impact of quantitative easing (QE) across a range of countries and markets; similarly, the China spillover report sheds light on the differential impact of renminbi appreciation across trading partners.

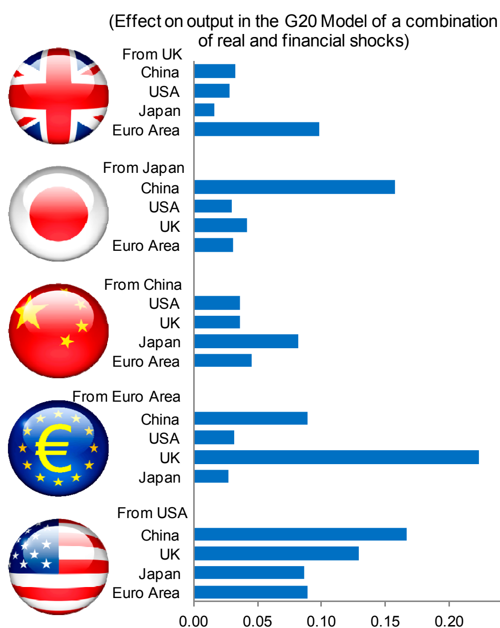
3. Without reprising all the results of the five spillover reports, this paper sets out some overarching lessons. Given that the exercise was conceived in the context of Article IV surveillance with an emphasis on individual countries' outward spillovers, as opposed to policy interactions that are the domain of multilateral surveillance, the paper stops short of drawing a global policy agenda. The key task of analyzing policy interactions and coordination will need to be addressed in upcoming multilateral surveillance.

II. IMPLICATIONS FOR POLICIES

4. The five economies taken up by spillover reports are all systemic, but each is systemic in its own way. The US and EA are both large, but it is the former that is at the center of the global financial system; China and Japan, much smaller than the preceding two, are similarly sized but have very different trade and financial linkages to the rest of the world; and the UK is far more important to global finance than to trade. These differences explain the varying methodological approaches to policy spillovers across the five reports. Nevertheless, a unified model can yield insights into the forces at play:

- First, there is a regional component to growth spillovers (Figure 1). Japanese shocks most affect China (and vice versa), and Euro Area shocks most affect the UK (and vice versa), suggesting an important role for trade and supply chain channels. Only the United States seems to matter profoundly to everyone, although it too matters most to Canada and Mexico.

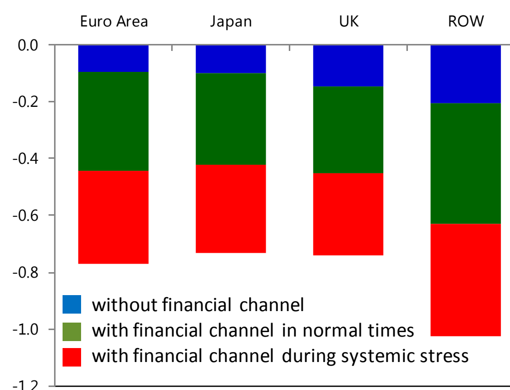
Figure 1. Peak Impulse Response in Partners to a 1% GDP Shock



- Second, US omnipresence cannot just be a matter of size (which is about the same as the Euro Area's) or trade (which is about the same as China's). Rather, the defining factor appears to be US financial sector dominance, and the dollar's associated role as the world's reserve currency. Financial sector heft also explains the capacity of the UK to hit the United States to the same degree as the much larger Euro Area does.

- Third, and building on the above, when financial channels are given full play—by tracing the co-movement of yields and risk premia as they do in reality (rather than as they do in standard large macro models)—the spillovers are an order of magnitude higher (Figure 2).

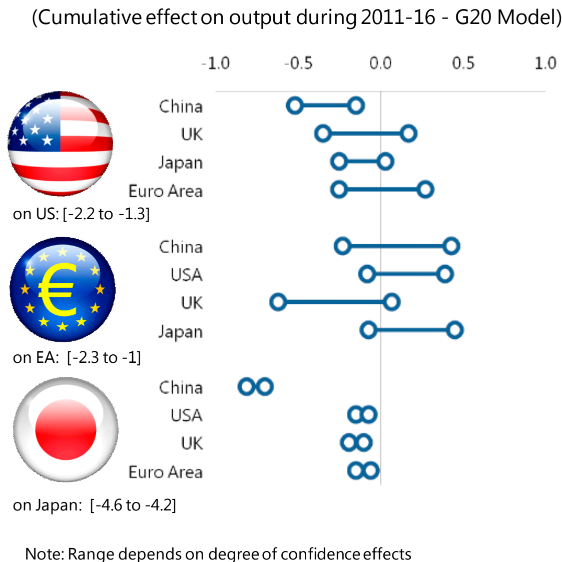
Figure 2. Spillovers via Financial Channels



5. The last point captures a key theme across the spillover reports: the near-term external impact from any given macroeconomic policy hinges on its effect on financial conditions. When financial conditions are stressed and liquidity is uncertain, the correlation in long-term bond yields is much higher, and the impact of monetary and fiscal stimulus on others' yields and currencies is especially powerful. Thus, dollar for dollar, US QE1 had a far more profound effect on the rest of the world than QE2, and the 2009 fiscal stimulus was more stimulating globally than the 2010 stimulus.

6. But the matter is different once fiscal space recedes. Therefore, looking ahead, and assuming financial conditions do not deteriorate, the demand spillover from reversing these policies should be small, manageable, and even positive in some cases (Figure 3).

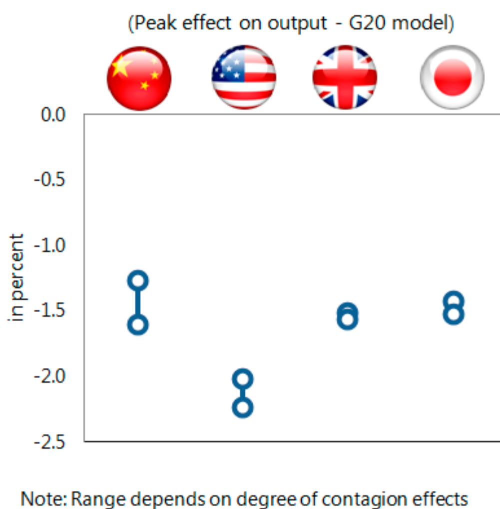
Figure 3. Spillovers from Planned Fiscal Adjustment



Note: Range depends on degree of confidence effects

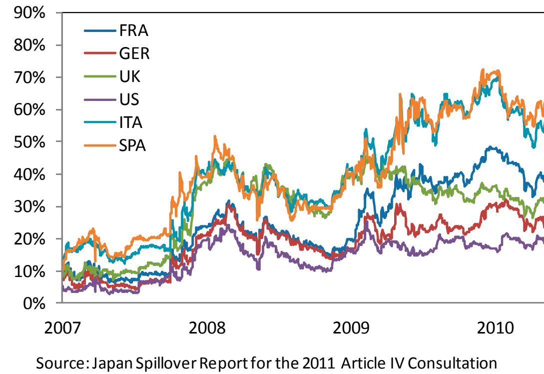
7. By the same token, were the current path of fiscal policy to lead to a loss in confidence in sovereign debt sustainability, the consequences for the rest could be enormous. Figure 4 illustrates this for a large jump in US long-term Treasury yields, while Figure 5 uses a somewhat different metric to illustrate the risk of contagion from Japan (see associated spillover reports).

Figure 4. Spillovers from 200bps US T-Bill Shock



Note: Range depends on degree of contagion effects

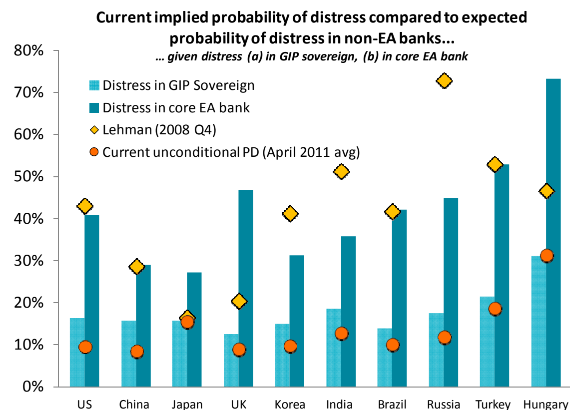
Figure 5. Sovereign Stress in Japan



Source: Japan Spillover Report for the 2011 Article IV Consultation

8. A similar point applies to Europe (Figure 6). Were financial stresses from sovereign debt sustainability in the periphery to spread to core Euro Area banks, the hit to banks across the world in terms of risk premia would in many cases rival that from the Lehman event in 2008.

Figure 6. Financial Stress in Core Euro Area Banks

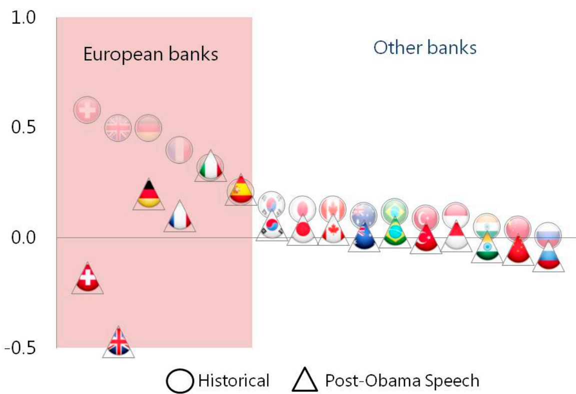


9. The immediacy of the financial channel for propagating shocks also means that the world has an important stake in its stability—and therefore in avoiding gaps and inconsistencies in regulation and supervision. The point was made obvious by the way the current global crisis unfolded in 2008. Yet,

despite all the efforts towards forging a common approach (Basel III, the designation of global systemically important financial institutions, etc.), it remains unclear if these efforts will succeed. One telling episode here is the differential response of US versus UK and Swiss bank shares in the run-up to the Dodd-Frank law. Were the law seen by markets to represent a global approach, domestic and foreign bank shares should have moved together, as they have done historically. But they did not in European financial centers (Figure 7). Another sign of differences is the debate between the European Commission and its members on capital and liquidity, with the UK and some others aiming for higher standards and other members urging uniform standards. The issue of cross-border resolution of banks also remains unresolved.

Figure 7. Response of Bank Shares to Dodd-Frank

(Percent change in foreign banking system excess returns per percent rise in U.S. banking system excess returns)



10. Does all the above imply that a country like China, with financial channels occluded by a closed capital account, does not generate important spillovers? Absolutely not. Rather, external effects are manifested through real channels that take more time to play out. As argued in the China spillover report, interruption in China's so far steady growth could have quite far reaching consequences, while early adjustment in its growth model would yield positive spillovers (Table 1). Moreover, to the extent that the current growth path may be unsustainable, the benefits of adjustment are understated by standard models. Finally, looking ahead, currency internationalization and financial opening are part of the authorities' game plan—China will likely generate more financial effects beyond those stemming from reserve build-up and the associated lowering of advanced country yields.

Table 1. Medium-term impact of 20% Real RMB Appreciation and Other Reforms for Rebalancing in China - GIMF model

	GDP (in percent) 1/	Current Account (in percent of GDP) 2/
China	1.0	-5.17
U.S.	0.15	0.25
Euro Area	0.21	0.19
Japan	0.22	0.04
Emerging Asia	1.0	-0.76
Commodity Exporters	0.20	0.31

1/ Cumulative effect at peak
2/ 5 years

III. IMPLICATIONS FOR GLOBAL COLLABORATION

11. Four points about the process warrant special mention.

12. First, by design, the focus of discussions has been on each economy's *own*

outward spillovers, based on consultation with systemic partners and a range of emerging market economies (Brazil, Hong Kong SAR, India, Indonesia, Korea, Mexico, Poland, Russia, Singapore, Thailand, and UAE). Although this focus prompted some to declare themselves net importers of spillovers, the impulse to play down outward spillovers and play up inward ones was generally resisted. The tone of the discussions was thus positive and constructive, even when specific points were disputed.

13. Second, insofar as there is a common interest in mitigating global tail risks, spillover analysis confirms that national and global goals are relatively aligned in many areas. Thus, for example, the staff's advice to move ahead with a credible fiscal consolidation path in advanced countries—rather than delay it in the face of tepid growth—is consistent with the notion that the global interest is also better served by eliminating the tail risk of financial instability from concerns over fiscal sustainability. The same is true with staff advice to pick up the pace of currency adjustment and rebalancing in China, which tackles internal stresses *and* yields positive external spillovers. Neither example denies that the near-term costs would be greater for the country undertaking fiscal consolidation or currency appreciation or that policies need to take into account cyclical factors. Rather, the point is that there is a common interest in avoiding the alternative scenario of financial and economic disruption.

14. An area where there is some tension between domestic and external goals relates to monetary policy in advanced countries, notably in the United States, which no longer is in the QE1 mode of averting a global financial meltdown. Given advanced countries' cyclical positions and inflation prospects, the promotion of lending and risk taking with easy monetary policy makes sense. But the same is not true for booming—and especially for financially open—emerging market countries. In this regard, although QE2 was found to have only a modest direct effect on EM yields and currencies, the concurrent improvement in global conditions, which is hard to conclusively link to QE2, did in fact add to asset and commodity price pressures in EMs. So there are issues to be debated here. Is there some externality or special circumstance that warrants advanced country central banks to take a broader view of their financial stability mandate? From a spillover perspective, does action to address fiscal credibility in advanced markets create more leeway for easy monetary policy in advanced countries? Through what combination of currency-macroeconomic-macroprudential action should EMs respond, and what would be the associated spillovers?

15. Third, by construction as part of country/Article IV surveillance, spillover reports

do not examine how policy spillovers across countries interact with one another. For example, some argue that the uncertainty emanating from advanced country financial stress has dampened the effectiveness of policies to decrease precautionary savings by households in China. On the other side, the interruption of RMB appreciation in 2008 may have limited China's support to global demand at a time of a generalized demand shortage.

16. How policies add up and interact—e.g., is simultaneous fiscal consolidation as benign as individually?—will have to be tackled by the Fund's multilateral surveillance, including in the context of its contributions to the G20 Mutual Assessment Process. Such a discussion with senior policy makers is critical to the traction and future of spillover analysis as a surveillance tool. The planned discussion at the IMFC, as part of the consolidated report on multilateral surveillance, will be an important next step in the process.

17. Finally, the Board will need to decide at some point if and how to continue the exercise. While this is best done in the Fall, after the upcoming Triennial Review of Surveillance, the following issues will arise:

- *Frequency—annual or longer?* While annual spillover reports are certainly feasible, it may be difficult to add much new content for some countries at this frequency, thus undermining its traction.
- *Coverage—S5 or wider?* Covering more than a handful of economies will be costly, even allowing for the fact that some fixed costs in setting up processes and basic economic models have already been incurred. (It is estimated that the exercise has involved 8 full time equivalents in staff time and travel costs across the Fund.) Consideration should be given to including other large players from time to time—e.g., oil producers, other BRICS economies. The impact on smaller EMs and low income countries also warrants better coverage in future.
- *Context—multilateral or Article IV?* This may be the most important question. The current spillover exercise has been conducted in the context of bilateral surveillance, thus allowing staff to use an existing modality for discussions with officials and to bring a global perspective to policy advice in Article IVs. However, the goal of the exercise is inherently multilateral in nature, and it should arguably be undertaken in the context of multilateral surveillance, especially if policy interactions and coordination issues are to be explored.

IV. CONCLUDING THOUGHTS

18. Spillover reports are still in their infancy and their value as a surveillance tool has yet to be established. Many of the models and methodologies developed for the exercise are relatively new. Above all, there is the unfinished task of systematically exploring *policy interactions and combinations*. The vehicle for doing so is the Fund's multilateral surveillance—e.g., in the WEO, GFSR, and the new Consolidated Multilateral Surveillance Report—as well as related initiatives such as the G20 Mutual Assessment Process.

19. Nevertheless, the initiative has one important thing going for it: the fact that it takes up issues raised by partner countries, and does so in a confidential setting that allows the airing of views otherwise papered over in Fund surveillance. Importantly, the process brings a more multilateral perspective to policy advice in Article IVs, which has been a long-standing demand of the membership.

20. In this first round, spillover reports highlighted the importance of the financial channel as a key determinant of what near-term effect any given policy change has on others. Spillover analysis confirms that national and global goals are relatively aligned in the case of fiscal and regulatory policies insofar as they attenuate tail risks to the global economy from the loss of confidence in fiscal sustainability and financial stability. Advanced country monetary policy is more complex, given differing cyclical positions. Even where domestic and external goals seem to converge, more spillover analysis, discussion, and cooperation would still be needed, as in the case of financial regulation and the resolution of global imbalances.