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IMF MULTILATERAL POLICY ISSUES REPORT

2013 PILOT EXTERNAL SECTOR REPORT

August 1, 2013

IMF staff regularly produces papers covering multilateral issues and cross-country analyses. The following documents have been released and are included in this package:

- The **Staff Report** on the 2013 Pilot External Sector Report, prepared by IMF staff and completed on June 20, 2013 for the Executive Board's consideration on July 10, 2013.

The Executive Board met in an informal session, and no decisions were taken at this meeting.

The documents listed below have been or will be separately released.

The publication policy for staff reports and other documents allows for the deletion of market-sensitive information.

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2013 PILOT EXTERNAL SECTOR REPORT

June 20, 2013

KEY POINTS

- The evolution of external positions has been shaped by two key and interlinked issues:
 - ◆ Continued weakness in growth in advanced economies has led to the adoption of policies designed to reinvigorate their national economies—including additional rounds of unconventional monetary policy easing—that have impacted other economies, both positively and negatively.
 - ◆ Shifts in risk sentiment led, at various times, to capital flow pressures on emerging markets and safe haven economies, including smaller advanced economies.
- External sector imbalances narrowed in 2012; global imbalances are about $\frac{3}{4}$ percent of global GDP. With few exceptions, economies viewed last year as having excess surpluses (or deficits) saw those imbalances narrow, while remaining in surplus (or deficit). The euro area moved to a small surplus, with deficit countries reducing their imbalances, but little change for surplus countries.
- Continued cyclical weakness has contributed to the narrowing of external imbalances, but there has also been some progress in closing structural policy gaps. The policies that require adjustment are the same as those identified a year ago—medium-term fiscal consolidation and structural reform for deficit countries and stronger domestic demand in surplus countries. The pace of medium-term fiscal adjustment, and therefore further narrowing of global imbalances, needs to be calibrated carefully to reflect differing growth prospects and debt levels.
- The focus in trade discussions on regional agreements that go beyond the traditional trade agenda to encompass broader aspects of the business climate may help advance growth-enhancing structural reforms. The regional focus entails risks of fragmentation in global trade, absent a renewed commitment to completing the Doha round.
- Capital flows have been volatile and are likely to continue to be so. The combination of unconventional monetary policies in advanced economies and shifting risk sentiment on euro area tail risks produced large fluctuations in capital flows that presented difficult policy challenges to recipient economies.

The IMF's Second Pilot External Sector Report presents a multilaterally consistent assessment of the largest economies' external sector positions and policies for 2012-2013 H1. The report integrates the analysis from the Fund's bilateral and multilateral surveillance to provide a coherent assessment of exchange rates, current accounts, reserves, capital flows, and external balance sheets. The report takes into account feedback received on the previous report by placing a greater emphasis on capital flows and through further refinements to the EBA methodology. Together with the Spillover Report and Article IV consultations (with their heightened focus on spillovers), this Report is part of a continuous effort to ensure the Fund is in a good position to address the possible effects of spillovers from members' policies on global stability and monitor the stability of members' external sectors in a comprehensive manner.

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Acronyms

AE	Advanced Economies
BIS	Bank for International Settlements
CGER	Consultative Group on Exchange Rates
CMI	Chiang Mai Initiative
CPI	Consumer Price Index
EBA	External Balance Assessments
EPFR	Emerging Portfolio Fund Research
ES	External Sustainability
ESR	External Sector Report
EM	Emerging Markets
FCL	Flexible Credit Line
FDI	Foreign Direct Investment
FM	Fiscal Monitor
GDP	Gross Domestic Product
GFSR	Global Financial Stability Report
GVC	Global Value Chains
HIPC	Highly Indebted Poor Countries
ICRG	International Country Risk Guide
IIP	International Investment Position
IFS	International Financial Statistics
IMF	International Monetary Fund
INS	Information Notice System
LIC	Low-Income Countries
NEER	Nominal Effective Exchange Rate
NFA	Net Foreign Assets
NEXGEM	Next Generation' Emerging Markets Index
NIIPs	Net International Investment Positions
OCR	Official Cash Rate
OMT	Outright Monetary Transactions
PCPS	Primary Commodity Price System
PPP	Purchasing Power Parity
QE	Quantitative Easing
REER	Real Effective Exchange Rates
SNB	Swiss National Bank
ROSC	Report on Observance of Standards and Codes
UMP	Unconventional Monetary Policies
VIX	Chicago Board Options Exchange Market Volatility Index
WDI	World Development Indicators
WEO	World Economic Outlook
WTO	World Trade Organization

INTRODUCTION

1. **External sector developments and emerging policy issues have been driven by the weak global growth environment and the growth-supporting policy agenda.** Global imbalances reflect a combination of cyclical influences—both output gaps and deviation of commodity prices from trends—as well as structural factors, several of which are critical for supporting growth. The low interest rate environment, combined with shifting risk sentiment, impact the volume, direction, and volatility of capital flows which has created significant policy tensions in some recipient countries. This report is structured to provide first an overview of developments in key external sector dimensions—current accounts, capital flows, intervention policies, and trade policies—and then provide an assessment of the external sector positions of the larger economies including what needs to be done to close remaining imbalances.¹

CONJUNCTURE

2. **With global growth still subdued, especially in the advanced economies, the policy focus has been and will remain on supporting economic activity.** Global

growth in 2012 was weaker than expected, contributing to a retreat from high levels in most commodity prices. In major advanced economies (AEs), interest rates remained at very low levels, with additional rounds of quantitative easing, in an effort to support economic activity as fiscal consolidation continued. Emerging market and developing economies continued to exhibit relatively high, but slowing, growth rates. While the outlook is for a gradual improvement in growth during 2013 and 2014—in both advanced and emerging and developing economies—this will

require, where possible, continued policy support for growth through low interest rates, an appropriate pace of fiscal consolidation, structural reforms, and actions to reduce tail risks. Commodity prices are projected to decline by a further 1 percent in 2013 and oil prices by 2 percent.

Table 1. Overview of the World Economic Outlook Projections (April 2013)

(Percentage change, unless otherwise noted)

	Projections			
	2011	2012	2013	2014
World Output	4.0	3.2	3.3	4.0
<i>Advanced Economies</i>	1.6	1.2	1.2	2.2
<i>Emerging Market and Developing Economies</i>	6.4	5.1	5.3	5.7
Commodity Prices (U.S. dollars)				
<i>Oil</i>	31.6	1.0	-2.3	-4.9
<i>Nonfuel*</i>	17.8	-9.8	-0.9	-4.3
London Interbank Offered Rate**				
On U.S. Dollar Deposits	0.5	0.7	0.5	0.6
On Euro Deposits	1.4	0.6	0.2	0.4
On Japanese Yen Deposits	0.3	0.3	0.2	0.2

* Average based on world commodity export weights.

** Six-month rate for the United States and Japan. Three-month rate for the euro area.

¹ A discussion of the external sector position of each of the 29 countries in the External Sector Report—covering the current account, exchange rate, capital and financial account, foreign exchange intervention and reserves, and foreign asset and liability position—is contained in the companion paper “2013 Pilot External Sector Report—Individual Economy Assessments.”

A. Current account divergences have narrowed and real exchange rates are adjusting

3. **Global current account divergences continued to narrow in 2012, reaching 2 percent of global GDP compared to a peak of 3 percent in 2006.** Much of the adjustment occurred at the onset of the global financial crisis—financial instability, a sudden stop of capital flows, and asset price collapses led to sharp external adjustments in both surplus and deficit economies (Figures 1 and 2, and Table 2). The largest contributors to closing the global divergences have been China, Japan, and the U.S., all seeing large reductions in their current account divergences whether measured relative to world GDP or national GDP. But most of the major countries or country groupings have also contributed.

Table 2. Change in Global Current Account Divergences (2006–07 to 2012)

	(% of world GDP)	(% of own GDP)
Surplus		
China	-0.26	-6.83
Japan	-0.28	-3.41
Euro Area	-0.10	0.17
Germany	-0.08	0.12
Other	-0.04	-1.11
Oil	0.02	-3.05
Deficit		
United States	0.77	2.48
Euro Area	0.19	1.29
Other	-0.13	-0.69

Source: IMF, World Economic Outlook Database.

Box 1. Key Concepts

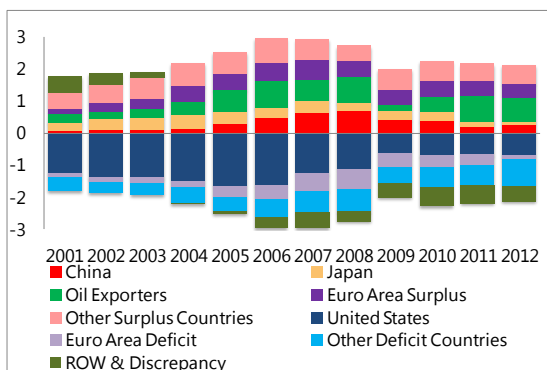
This Report uses several terms to refer to the external sector.

Current account divergences represent surpluses/deficits that differ across countries. They may be appropriate or inappropriate.

External imbalances represent the gap between actual current account balances and those estimated by staff to be consistent with fundamentals and desirable policies. They reflect distortions and other factors.

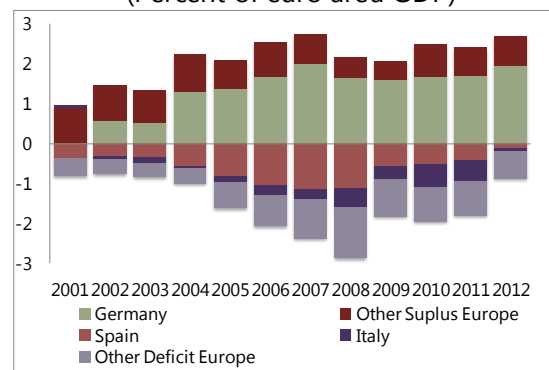
External position covers the overall assessment from the external indicators used in this Report, namely current account balances (and the counterpart capital and financial account balance), international investment positions and exchange rates (note: for an external position weaker (stronger) than expected the exchange rate is stronger (weaker)).

Figure 1. Global Current Account, 2001–12
All Countries: Actual Current Account
(Percent of world GDP)



Source: IMF, World Economic Outlook Database.

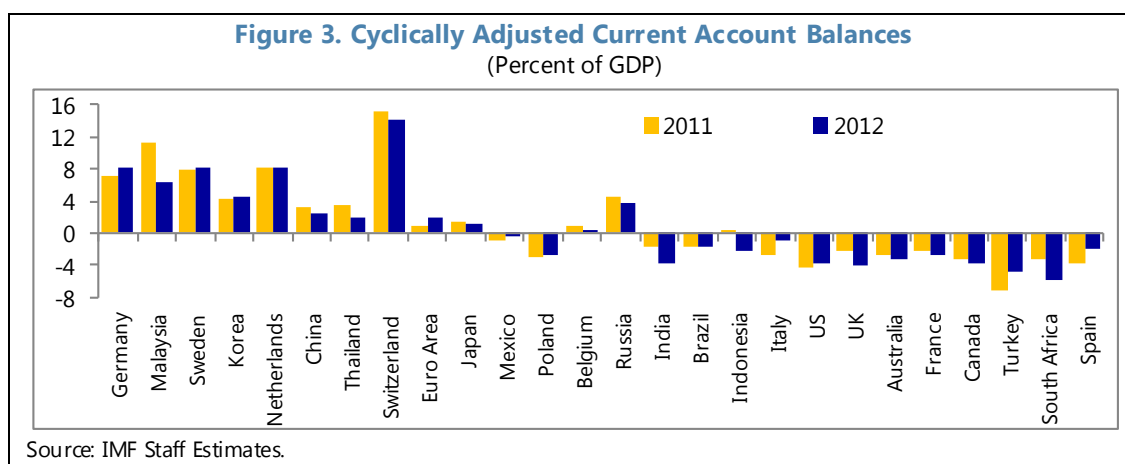
Figure 2. Euro Area Current Account Balances, 2001–12
(Percent of euro area GDP)



Source: IMF, World Economic Outlook Database.

4. **The further reduction in global imbalances in 2012 was concentrated in the surplus economies as well as the euro area deficit countries and the U.S.** Surpluses of oil exporting economies began to narrow from 2012 Q2 as oil prices started to fall and following an increase in fiscal spending. Emerging Asia swung into a small current account deficit, and there was a small increase in China's current account surplus (following a narrowing in 2011). Deficits in the euro area deficit countries narrowed by almost half, via export growth and further import compression—in crisis affected countries, imports are between 5 and 40 percent below pre-crisis levels. But surpluses increased in the euro area surplus countries such as Germany. Elsewhere current account deficits widened for India and South Africa, where growth has fallen below expectations.

5. **Cyclical factors have played a role, but cyclically adjusted balances provide a broadly similar picture suggesting some closing of underlying imbalances.** Cyclically adjusted current account balances—adjusted for both output gaps and the commodity price cycle—narrowed significantly in a number of countries in 2012 (Figure 3). The relative role of cyclical versus structural factors, and its likely evolution as the world economy strengthens, is taken up below (¶29).



6. **Current account divergences have been persistent—the same countries have run surpluses or deficits for many years—contributing to a build-up in asset or liability positions relative to the rest of the world.** While persistence in current account balances is to be expected—reflecting fundamental factors such as the stage of development of a country or demographics—the evolution of NIIPs (Table 3) and its composition can contribute to vulnerabilities.

7. **In 2012, real exchange rates generally continued to rise in surplus regions—China, oil exporters—and fall in deficit economies, with the exception of commodity producers such as Canada and Australia** (Figure 4). Since 2012 Q3, the yen which

Table 3. Net International Investment Positions

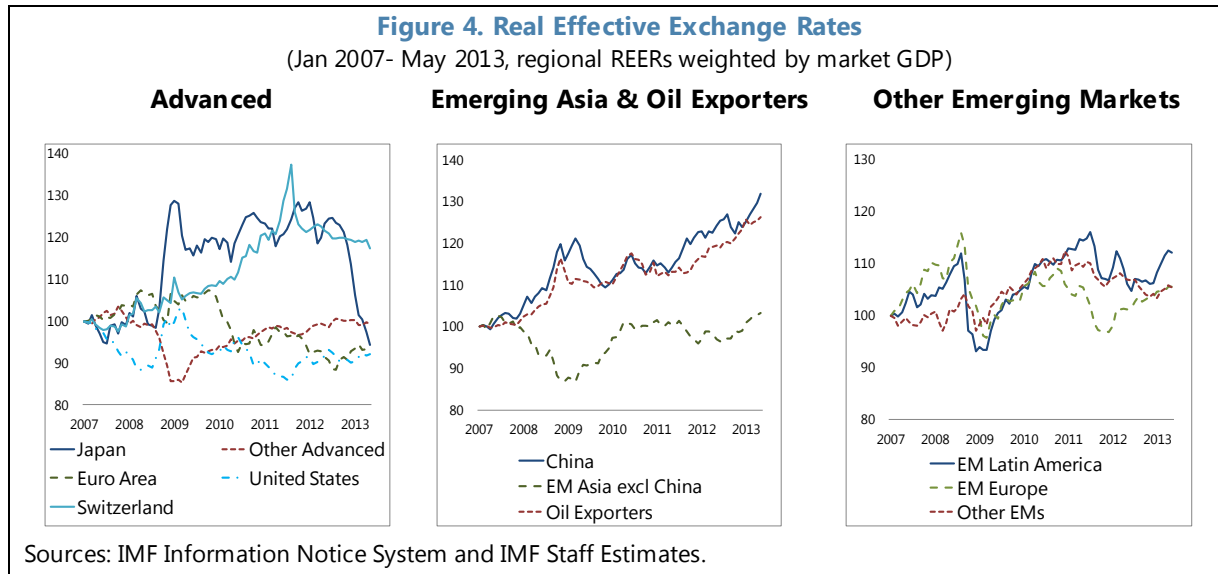
(Percent of GDP)

	2006	2012
Surplus economies		
Japan	33.5	57.4
Germany	29.3	41.0
China	23.6	21.1
Euro Area	-12.0	-7.7
Deficit economies		
Canada	-3.0	-15.9
France	1.1	-19.3
U.S.	-16.4	-28.2
U.K.	-30.9	-35.8

Sources: International Financial Statistics and Lane and Milesi-Ferretti, Updated and extended External Wealth of Nations database II.

Note: Measured in US dollars.

had appreciated significantly in recent years, depreciated sharply by about 20 percent in real effective terms in response to the unwinding of safe haven flows, the decline of tail risks in the euro area, and unprecedented monetary easing (Box 2). Monetary easing—even when used to counter deflation or depressed output and therefore enhance global demand—has impacted exchange rates (Box 3, and 2013 Spillover Report).

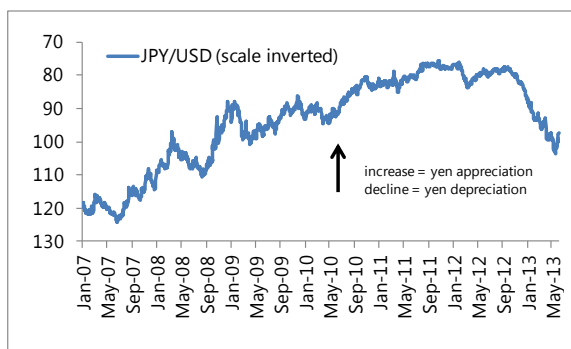


8. **Lower current account imbalances have been accompanied by both lower net capital flows and lower reserve accumulation, with few countries significantly increasing reserves** (Figure 5). Most regions saw a continuation of the decline in net capital inflows seen last year. Oil exporters continued to build reserves, in some cases to save part of the proceeds of the nonrenewable export for future generations. China saw a small net capital outflow, with reserves largely unchanged. The other advanced economies was the only grouping to experience surplus in both the current and capital accounts with a concomitant increase in reserves.

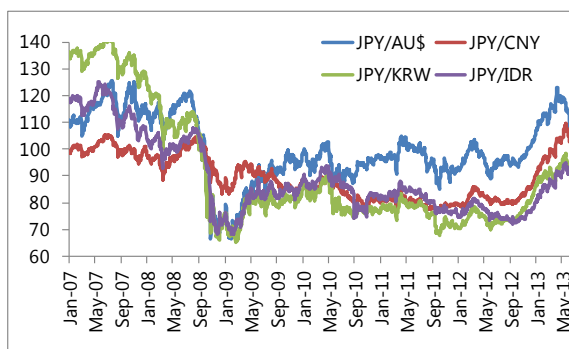
Box 2. Impact of the Depreciation of the Yen on Other Currencies

Between 2012 Q3 and June 6, 2013, the yen has depreciated by around 20 percent against the US dollar and has been accompanied by higher volatility with particularly sharp movements in the first week of June. Such movements, naturally, resulted in fairly large movements in the exchange rates of other countries within the region against the yen. Key trading partners are Indonesia, Thailand, Australia, China, and Korea (for all of whom Japan constitutes 10-20 percent of their trade) and these economies have seen some continued appreciation of their real effective exchange rates. However, to the extent that some of these economies are part of the Asia supply chain, and therefore benefit from the lower cost of intermediate inputs imported from Japan, exports are likely to be more resilient than for other trading partners. A comprehensive assessment of the potential impact of a sustained depreciation of the yen on trade patterns is contained in the 2013 Spillover Report.

US Dollar/Japanese Yen



Other Bilateral Exchange Rates against the Yen

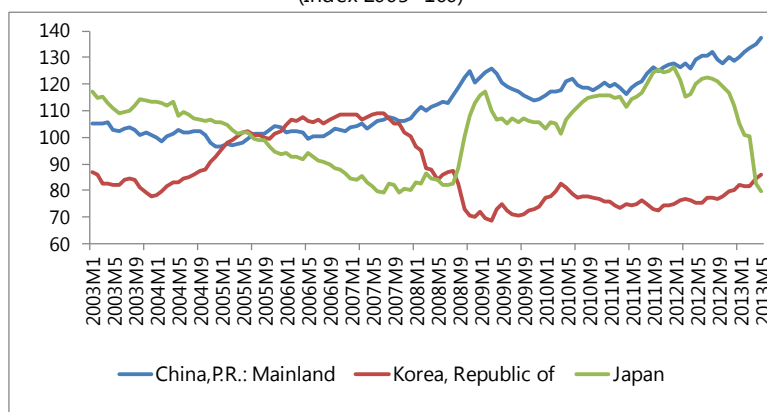


Source: Bloomberg.

Source: Bloomberg. Index September 15, 2008=100.

Real Effective Exchange rates (Jan. 2003-May 2013)

(Index 2005=100)



Source: INS.

Box 3. Worries over Unconventional Monetary Policies?

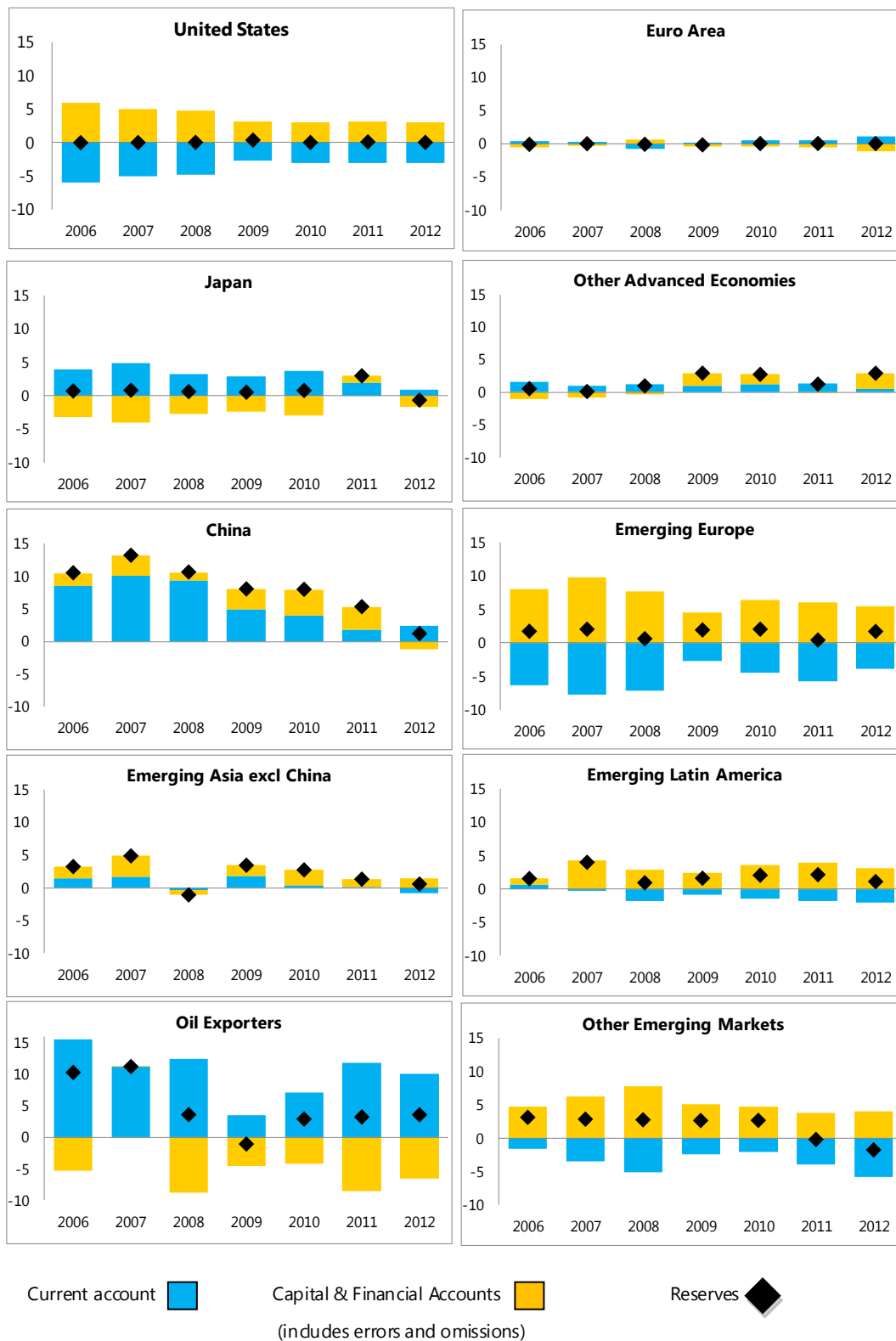
Context. Central banks in the U.S., Europe, and Japan have deployed Unconventional Monetary Policies (UMP) to combat deflationary pressures and depressed output brought about by the global financial crisis. Quantitative Easing (QE) through such unprecedented accommodative policies in key AEs has generated much debate about their domestic but more so their cross-border effects with concerns about potentially negative spillovers (this issue is examined in-depth in the 2013 Spillover Report).

Impact from Unconventional Monetary Policy. Highly accommodative monetary policies in key AEs have been generally effective in achieving domestic goals, including in decreasing long-term real rates and stimulating aggregate demand and growth (Kapetanios, et al., 2012; Gagnon, et al., 2011; Swanson, 2011). QE served as a strong signaling device that proved successful in reducing tail risks of a market breakdown, thus restoring investors' appetite for risk taking followed by the resumption of flows to Emerging Markets (EMs) (IMF, 2013a). Simulations from macroeconomic models that assess spillover effects from such monetary easing suggest that EMs with open capital accounts experience loosening of monetary conditions and deteriorating current accounts, financed by net capital outflows mostly from AEs. Importantly, the models suggest that QE contributed to raising global growth, including in EMs (IMF, 2013 a, b). Potential channels for expansionary spillovers of UMP to EMs include increased external demand raising EM exports and cheaper external financing to EMs stimulating domestic demand. At the same time, the capital inflows have presented policy challenges to EMs, particularly those at risk of overheating.

Risks. A prolonged period of exceptionally low interest rates in AEs may result in unintended consequences for domestic financial stability. More importantly, EMs remain concerned about the potentially distorting cross-border spillovers from UMP. These risks can materialize through exchange rate and capital flows volatility, but also through high asset prices and associated misallocation of resources (Glick and Leduc, 2013). Perhaps most relevant at the current conjuncture is the key concern associated with the timing of exiting from unconventional policies that could have major output and financial consequences in EMs, especially in the event that large inflows of capital were to reverse rapidly. In other words, markets could over react to initial steps to normalize accommodative monetary policies, leading to potentially sharp increases in long-term interest rates, financial market volatility, and adverse international spillovers. Therefore, effective communication and international policy coordination on exit strategies will be critical for reducing the risk of abrupt changes in global financial conditions, including potential reversals of capital flows from EMs and other capital recipient economies.

Figure 5. Pattern of Current Account Balances and Capital Flows, 2006–12

(Percent of each economy's or region's GDP)



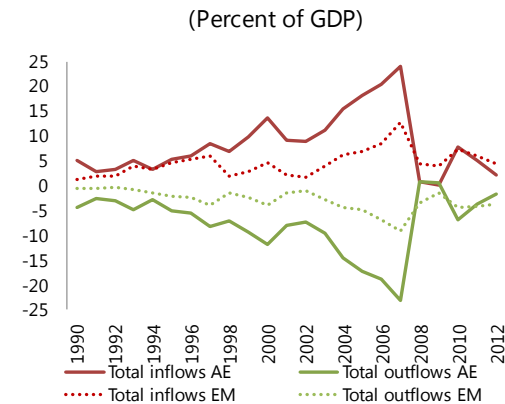
Source: IMF World Economic Outlook Database.

For country groupings see Appendix II.

B. Capital flows are lower in aggregate, but volatile, causing policy challenges for recipient countries

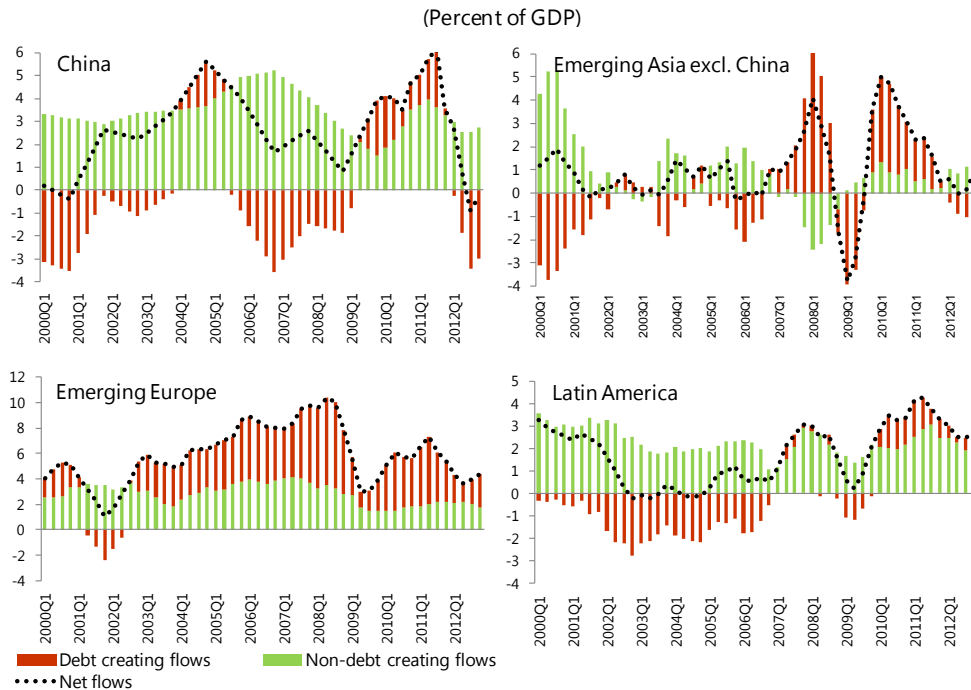
9. **Capital flows also declined on a gross basis during 2012, remaining well below the levels seen before the onset of the global financial crisis in 2008.** The spike in gross capital flows in the lead up to the crisis reflected an acceleration of cross-border transactions, especially within the euro area, in line with a general trend towards further financial integration (Figure 6). Flows among AEs have not recovered, reflecting the continued fragmentation of financial markets. Flows to emerging markets (EMs) as a group have also not regained the pre-crisis high.

Figure 6. Gross Capital Flows to Advanced Economies and Emerging Markets



Sources: IMF Balance of Payments Statistics, IMF WEO and staff calculations

Figure 7. Net Capital Flows to Emerging Markets, 2000 Q1–2012 Q4

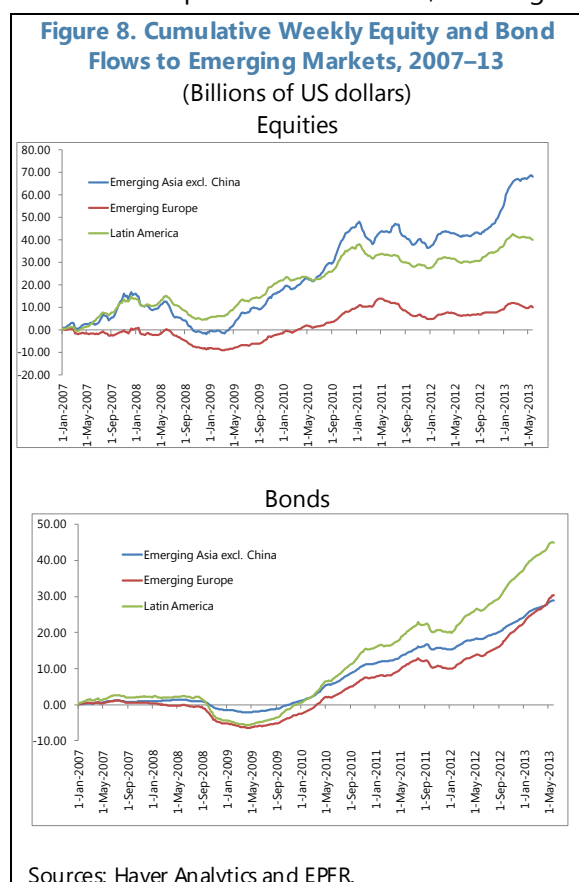


Sources: IMF Balance of Payments Statistics, IMF WEO and staff calculations.

10. **Some EMs have continued to see significant volatility in debt-creating flows, while foreign direct investment flows have been more stable** (Figure 7). Asian markets in particular have seen large fluctuations in net debt creating flows as risk sentiment has shifted. Focusing just on

bond and equity market flows (Figure 8), high frequency data point to four distinct periods of portfolio flows:

- **International investors returned to EMs in 2009.** Stronger growth prospects and higher interest rates in EMs contrasted sharply with the situation in AEs, handicapped by deleveraging and slowing growth.
- **Sentiment towards EMs, and the pattern of private capital flows, turned in the summer of 2011.** Risk aversion increased in the face of a combination of European debt concerns, a strong increase in commodity prices leading to fears of inflation, and slowing economic growth in some EMs. The VIX reached its highest level since the peak of the 2008 crisis. Capital flows to EMs slowed, with investors focusing on safe haven countries including several smaller AEs (Box 4).
- **International investors returned to EMs in the last quarter of 2012.** Risk aversion related to tail risks in the euro area receded following the introduction of the ECB's outright monetary transactions (OMT) program. Loosening of monetary conditions through the U.S. Federal Reserve's third quantitative easing and historically-low interest rates in safe havens pushed investors back to EMs in their search for yield. In addition, an improved growth outlook for emerging Asia was another factor that may have influenced flows.
- **In April and May, investor sentiment improved for the U.S. and Japan with a shift in flows to AEs.** Following Japan's introduction of quantitative and qualitative monetary easing and positive surprises on growth in Japan and the U.S. in 2013 Q1, there has been a steadying of flows to EMs with investors switching into equities in AEs. Market perception of an earlier than previously anticipated tapering off of quantitative easing in the U.S. resulted in a sell-off in some EM assets in late May.



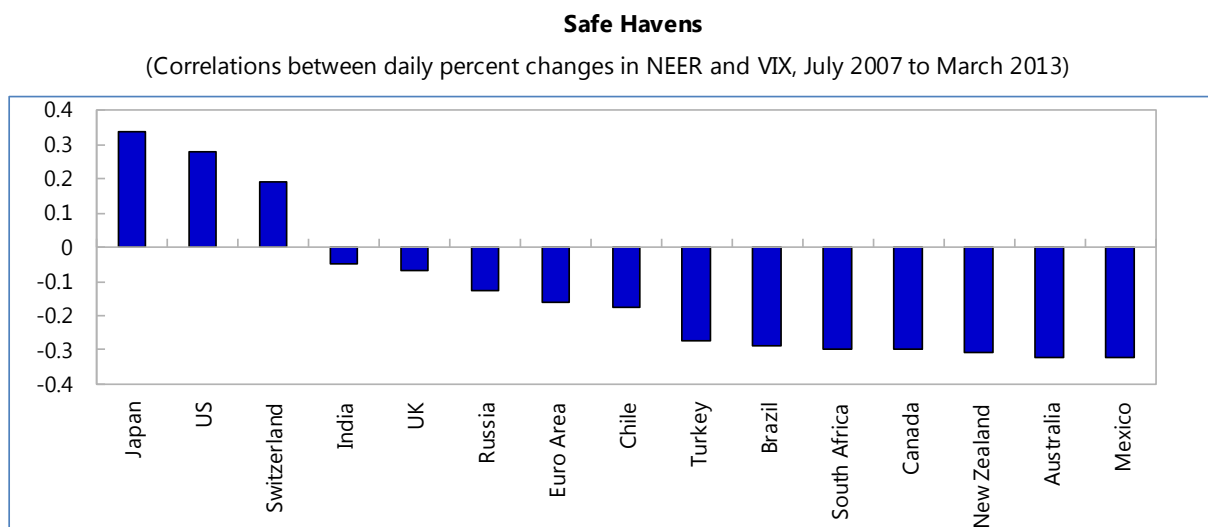
Box 4. What is a Safe Haven Currency?

A safe haven currency is one that is perceived by market participants to hold its value or appreciate in periods of global risk aversion (often referred to as risk-off episodes).

Economies with safe haven currencies often tend to have the following features:

- Large economies with the status of a reserve currency.
- Deep and liquid markets; but also some countries that are less leveraged and less open to capital flows (and so perceived as being less affected during times of stress).
- Strong net foreign asset positions.
- Low interest rates.

Relatively few currencies have served as safe havens during the period since the beginning of the crisis.



Source: Haver Analytics.

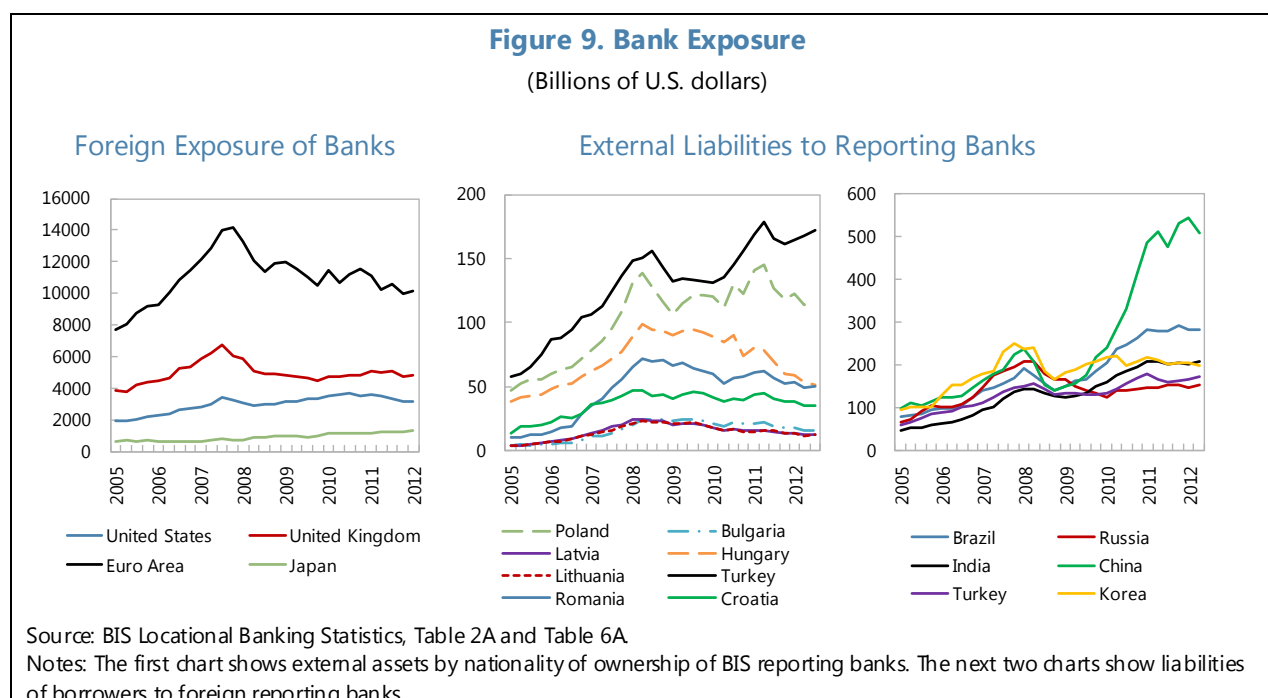
Other currencies have, at times, seen safe haven inflows, in some cases reflecting an emerging pattern of cross-border banks seeking to reduce their currency exposures. For example, during the 2012 period of stress in the euro area, Sweden and Denmark saw large inflows possibly as a hedge against tail risks in the euro area. More generally, and in some cases as a result of recent regulatory reform, some internationally active banks are aiming to match their assets and liabilities on a country-by-country basis (see GFSR April 2013).

11. **Analytical models identify a variety of factors behind the inflows to EMs.** Push-pull models—applied to either gross inflows (Spillover Report, IMF 2013a) or yields (Global Financial Stability Report (GFSR), April 2013)—suggest that while pull factors help to shape the allocation of flows across countries, the size, timing and composition of these flows are mainly determined by push factors such as global risk appetite and monetary policy conditions in the AEs. An alternative approach seeking to identify structural versus temporary factors underlying the magnitude and direction of recent capital flows also confirms the significance of temporary factors such as global risk appetite and, to a lesser degree, interest rate differentials (Annex I). Structural factors (such as greater financial development or market capitalization) have remained important and investors appear to have become more accepting of high government debt levels over the course of the crisis.

Growth differentials explain part of the reallocation of investment away from emerging Europe in favor of select emerging markets in Asia.

12. **European bank deleveraging continues to result in a reallocation of global banking flows** (Figure 9). European banks' pull-back from foreign lending has mostly affected central and eastern European countries. In contrast, Poland and Turkey (which avoided crises at the onset of the global financial crisis) have continued to benefit from bank lending, as have countries in other regions, notably Brazil and China.

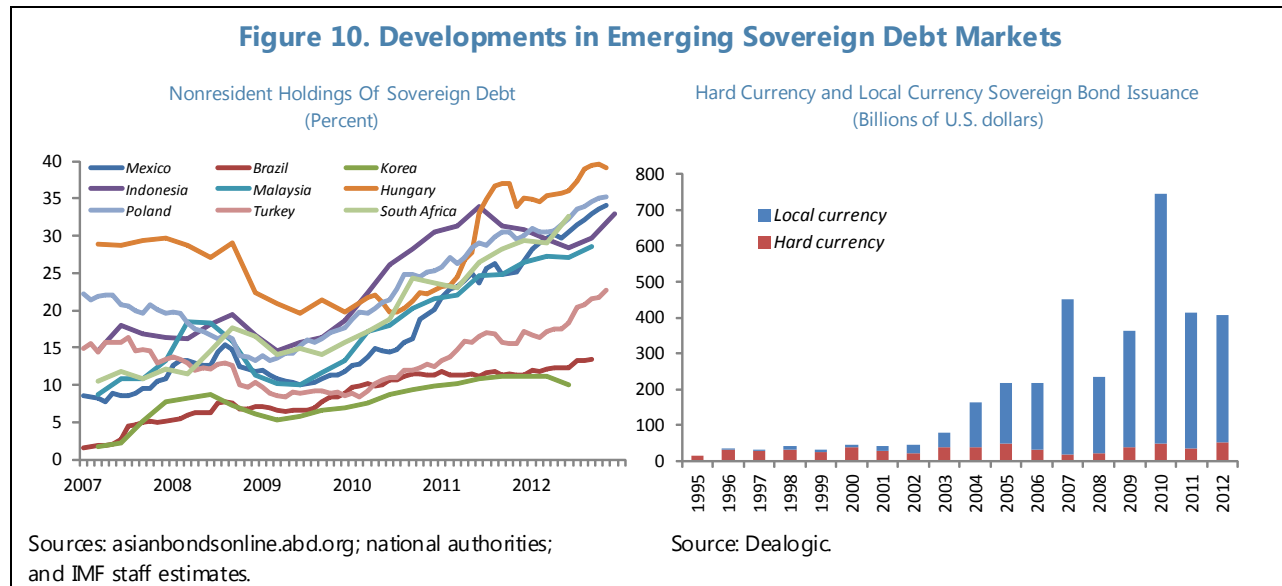
13. **Capital inflows have contributed to greater corporate leverage and foreign currency exposure.** The combination of higher bond financing with low equity issuance has increased debt-equity ratios and thus corporate leverage in many EMs. These include Brazil, China, India, Philippines, Thailand, and Turkey where the ratios were already high, increasing their vulnerability to shocks. Foreign-currency borrowing by emerging market corporates has also increased by about 50 percent over the past five years.



14. **Strong demand for sovereign emerging market bonds has resulted in higher foreign ownership share, a narrowing in spreads, and tightening yields** (Figure 10). Limited issuances of foreign currency denominated debt by these sovereigns have seen related spreads narrow by an average 400 basis points between end-2008 and end-2012. Sovereigns have also taken advantage of favorable external conditions by increasing local currency issuances; the strong appetite for this asset class is evidenced in the decline in yields by some 450 basis points since 2008 (GFSR, April 2013). At the same time, demand for certain EM assets has increased with the inclusion of some EMs in global bond indices and a sharp expansion in assets under management in EM local

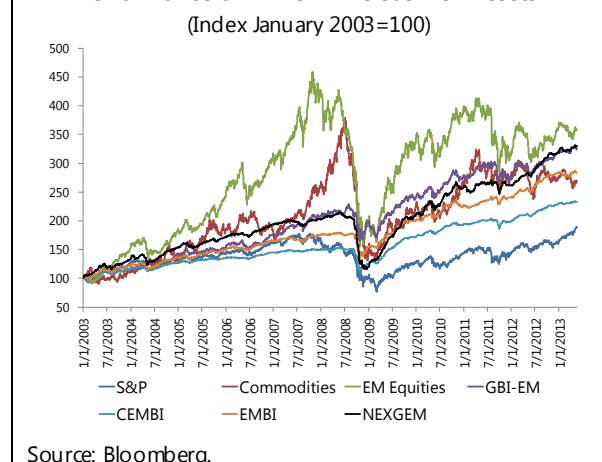
currency funds. With debt ratios already high in many EMs, these new inflows need to be managed carefully to avoid a buildup of medium term risk (see Fiscal Monitor, April 2013).

Figure 10. Developments in Emerging Sovereign Debt Markets



15. **Market access has also improved for a wider range of sovereign borrowers.** Frontier market bonds have outperformed many other risk assets over a long time horizon (Figure 11). Foreign purchases of portfolio assets (mainly sovereign bonds and equities) in several frontier markets—including African markets such as Ghana, Nigeria, and Zambia—surged in 2012, in some cases reaching new highs (see GFSR April 2013). Sovereign entities in other frontier regions have also accessed international capital markets, either for the first time (Mongolia), after a prolonged absence from the markets (Bolivia), or in greater size (Serbia).

Figure 11. Developments in Frontier Markets
Performance of NEXGEM Versus Risk Assets



16. **Both AEs and EMs have used a range of policies to manage risks from both the level and volatility of capital flows** (Table 4). Key concerns are that large inflows will induce a sharp exchange rate appreciation, could cause asset price bubbles, and adversely impact growth, including by adding to deflationary pressures in AEs where interest rates are already close to zero. Large and sudden outflows are also a risk, potentially placing significant pressures on asset prices and raising risks of financial instability. Key measures taken include:

- The introduction of a floor to the exchange rate (such as in Switzerland against the euro); negative interest rates on deposits (as in Denmark, which maintains a peg against the euro).

- The use of capital flow measures aimed at managing the pace of capital flows has increased, e.g., Brazil imposed taxes on portfolio and equity flows—some of these taxes were repealed in June 2013 as the market was considered to have stabilized.
- The liberalization of controls on outflows was used by some countries as one measure to potentially help ease inflows and associated pressure on the exchange rate (e.g., Philippines, South Africa and Thailand). On balance, while a number of countries have tightened their capital account, a trend towards liberalization remains, especially in low income countries (LICs) and in EMs with significant capital controls.

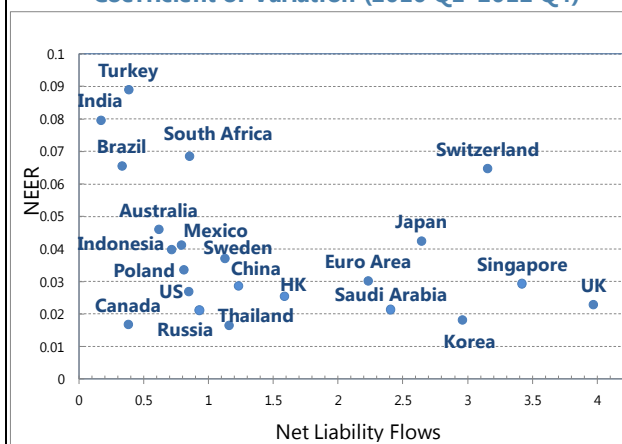
Policy Responses	Countries
Exchange rate appreciation	Brazil, Colombia, Korea, Peru, Philippines, South Africa, Uruguay
Foreign exchange market	Brazil, Indonesia, Korea, Peru, Philippines, Switzerland
Low policy rate	Indonesia, Switzerland, Turkey
Capital Flow Measures	Brazil, Indonesia, Korea, Peru, Philippines, Uruguay
Outflow liberalization	Philippines, South Africa, Thailand
Macroprudential policies, including reserve requirements adjustment	Brazil, Indonesia, Israel, Korea, Peru, Philippines, Switzerland, Turkey, Uruguay

- Macro-prudential measures, especially to limit vulnerabilities from excessive non-core funding have been stepped up. For example, the macro-prudential levy in Korea and the use of reserve requirements especially in Latin America and Asia. By and large, these measures have been successful in reducing reliance on volatile non-core funding. They can, in addition, help control excessive credit growth and contain increases in leverage and vulnerability to asset price reversals (see IMF, 2013c).

17. Despite these measures, economies have experienced significant exchange rate and capital flow volatility.

The greatest capital flow volatility has occurred in those countries with financial centers, such as Singapore and the U.K., while many EMs, notably Brazil, India, South Africa, and Turkey have seen significant exchange rate volatility (Figure 12). Exchange rate volatility can also manifest in other ways. For example, although both Japan's exchange rate and quarterly net liability flows have been volatile, sharp movements in the yen appear to be triggered often without shifts in capital flows, as derivatives activities and, in particular, large changes to short positions appear to drive movements in the yen (Botman and others, 2013). This has implications for policies as it is less clear whether macro-prudential policies could help limit excessive exchange rate volatility to the extent it occurs through speculative positions rather than through capital flows.

Figure 12: Exchange Rate and Capital Flow Volatility—Coefficient of Variation (2010 Q1–2012 Q4)



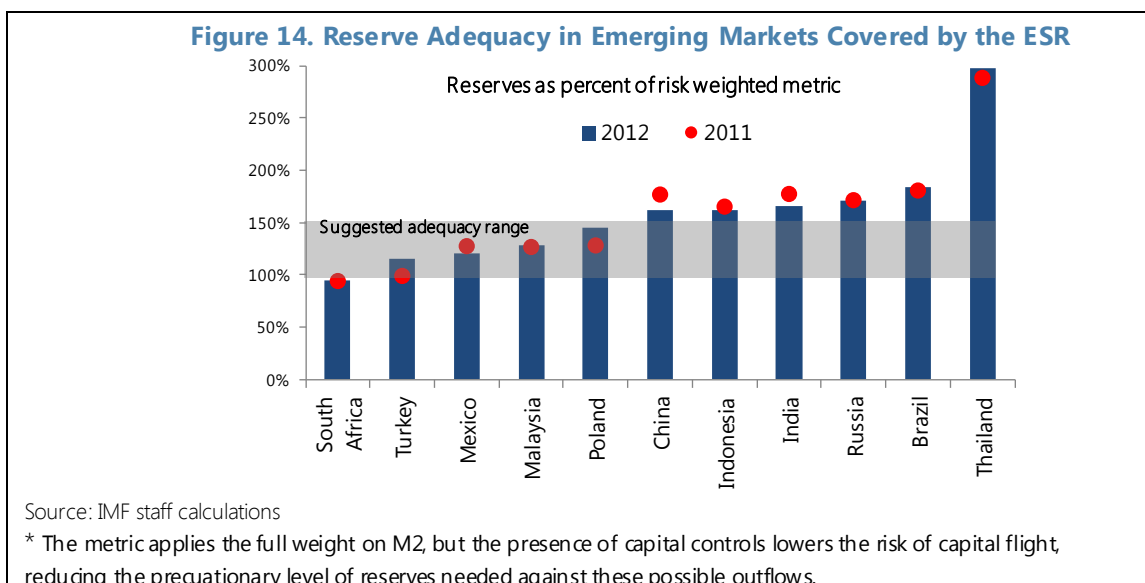
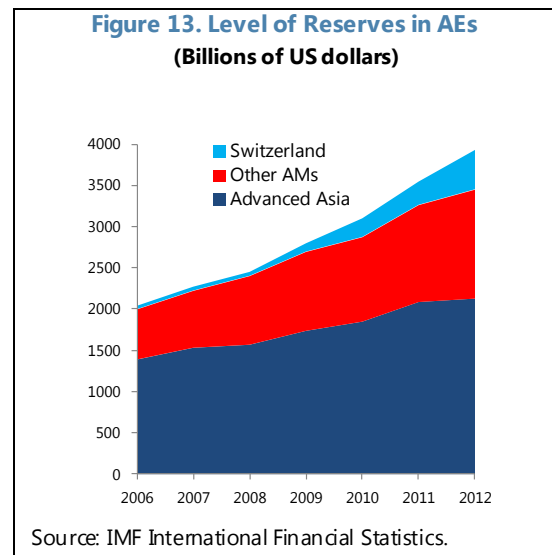
Source: IMF Staff Estimates.

C. Reserve accumulation has responded to the pattern of capital flows— with significant increases in some smaller advanced economies

18. **The pattern of reserve accumulation in 2012 reflected the incidence of capital flows.** As capital inflows to EMs slowed in 2012, intervention also declined. By contrast, the pace of reserve accumulation accelerated in countries with safe haven status. For example, reserve growth in Switzerland accelerated as the central bank intervened to support the floor introduced after a strong appreciation (Figure 13).

19. **Reserve adequacy calculations for 2012 are broadly unchanged compared with 2011** (Figure 14).

A few EMs did see an acceleration in reserve accumulation in 2012 (e.g., Poland, Russia, Thailand, and Turkey). Rising liquid domestic assets, which could result in capital flight (proxied by broad money), was the main driver of the change in the metric (Figure 15). Due to the relative weakness in capital inflows in the year as a whole, there was little increase in short-term debt and portfolio liabilities.



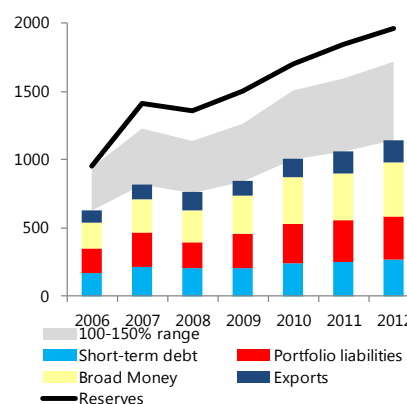
20. **Reserve accumulation in both advanced and emerging markets has been underpinned by a range of motivations (Annex II).** The precautionary motive remains an oft-cited reason for holding reserves, although this is not the only motive. For example, smoothing exchange rate volatility and saving resource-related revenues motivate accumulation by some EMs. For some AEs and EMs, rising external liabilities and reliance on short-term external bank funding raise new challenges as central banks may need to step in to ensure solvent local institutions have sufficient

foreign exchange liquidity if these markets become dysfunctional. For these countries, there may be a case to use reserves to provide foreign exchange liquidity to the domestic banking sector in the event of a crisis. For example, Sweden has recently announced that it will increase its foreign exchange reserves through borrowing to provide a buffer against financial shocks—such support comes with a cost to the central bank (the cost of holding additional reserves) and should be compensated by potential users.

21. **The precautionary motive for reserve accumulation can be lessened to the extent that alternative funding is available in the event of a systemic crisis.** For example, the US Federal Reserve created swap lines designed to provide foreign central banks with the capacity to deliver U.S. dollar funding to institutions in their

jurisdictions during times of market stress, while preventing the spread of strains to other markets and financial centers. The swap lines were designed to complement central banks' own reserves during the global financial crisis. Non-USD swap lines were also arranged between AEs. China also established a number of renminbi swap lines across many advanced and emerging economies, with the current outstanding size of around 2 trillion renminbi. In May 2012, members of the Chiang Mai Initiative (CMI) agreed a doubling in the size of the CMI Mechanism to provide significantly increased access to resources, if needed. The IMF's Flexible Credit Line and Precautionary and Liquidity Lines can also complement reserves. However, to the extent that economies are not confident that such swap lines might be available in the future or are uncertain about the amounts that will be available, then they are more likely to continue to hold reserves for precautionary purposes.

Figure 15. Composition of the IMF's Reserves Adequacy Metric Excluding China
(Billions of US dollars)



Source: IMF Staff Estimates.

D. Trade protectionist pressures remain muted; the growing focus on regional agreements emphasizing structural measures to unlock growth needs to be complementary to multilateral liberalization

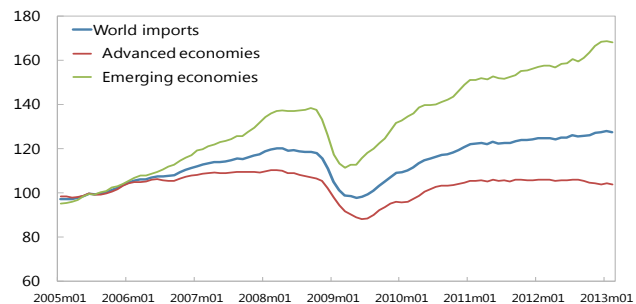
22. **World trade growth remains below trend with AE trade volumes still below 2008 levels.** Trade growth is estimated at 2 percent in 2012, well below the 1992-2012 average of 5.2 percent. The EMs continue to perform more strongly than the AEs, with import volumes in EMs/Asia particularly strong.

23. **Traditional measures of trade restrictiveness increased only modestly at the height of the global financial crisis, but have not fallen much since.** The WTO Trade Restrictiveness indicators—capturing measures such as tariff increases, import licenses, or new customs controls—show some increase in the share of trade covered by import-restrictive measures in the immediate aftermath of the global crisis, though this subsequently eased. The share of trade covered by import-restrictive measures of G20 economies, however, continued to increase through end-May 2012. The protectionist response has been substantially muted relative to the average countercyclical response during 1988-2008 (see Bown and Crowley, 2012).

24. **But there are risks of further trade distortions and growing fragmentation of global trade.** The increased role of Global Value Chains (GVCs) has changed the dynamics of trade protectionism, placing an increased focus on “behind the border” policies—such as logistics, broad investment climate features, nature of government procurement—rather than tariff or other border measures per se (see IMF 2013d). Trade liberalization efforts have focused on regional level agreements—such as the Trans-Pacific Partnership (12 countries, including U.S. and Japan, are currently involved in the discussions) and the Transatlantic Trade and Investment Partnership—as well as “deep” bilateral Free Trade Agreements designed to interface better with GVCs. The multilateral trade liberalization effort remains stalled, with little progress toward concluding the Doha round

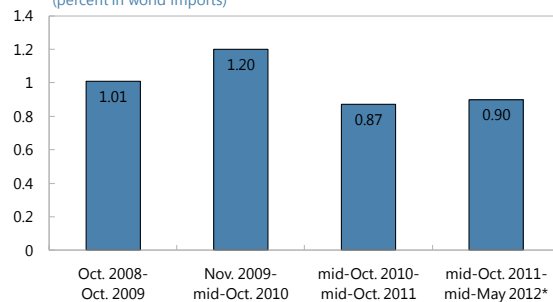
Figure 16. World Imports & Trade Restrictions

World Trade Volumes, 3-month average
(Levels, 2005=100)



Sources: CPB Netherlands Bureau for Economic Policy Analysis, Fund staff estimates.

Trade Covered by Import-Restrictive Measures of All WTO Members and Observers
(percent in world imports)



Source: WTO

*The data for this report cover a seven-month rather than a one-year period

ASSESSMENT—MODEST GLOBAL REBALANCING HAS TAKEN PLACE, BUT MORE CAN BE DONE

Methodology

25. **Current account divergences do not in themselves indicate an external imbalance.** Savings should flow to where they are most productive. Thus, current accounts should vary across countries, over stages of development, and over the business cycle. But, when divergences do not reflect these factors, they may be a symptom of domestic policy distortions and/or building vulnerabilities or the result of policy distortions in other countries.

26. **The Fund’s analysis of external imbalances draws on a variety of tools, including the external balance assessment (EBA), and also includes judgment** (see Box 6). Key components (similar steps are used for real exchange rates) include:

- Current accounts are adjusted for temporary influences of the business cycle (output gap and terms of trade).
- A “norm” is estimated for each country—that is the current account balance which would be expected to prevail in the medium term consistent with fundamentals and judgments about desirable policies. The estimated norms are multilaterally consistent in that current account gaps (difference between the actual and the norm) sum to zero.
- The gaps are then decomposed into elements attributable to policy distortions and other factors—these could include policy distortions which may not be reflected in the EBA. As explained in Box 5, policy distortions can arise either from domestic policies or as a result of the policies of other economies.
- For economies where external sustainability is a concern, a third approach, the external sustainability approach, can be particularly helpful. This identifies the current account needed to stabilize the Net Foreign Asset (NFA) position at a benchmark level. This approach illustrates, for example, the extent of further adjustment that may be needed in euro area economies with debt problems.

Box 5. Domestic and Foreign Policy Imbalances

A simplified example could help to clarify how policy distortions are analyzed in a multilateral setting. Take a stylized example of a two country world:

Country A has a large current account deficit, a large fiscal deficit, and high debt.

Country B has a current account surplus (matching the deficit in Country A), but it has no policy distortions.

External imbalances. The analysis would show that Country A has an excessive external imbalance reflecting its large fiscal deficit. Country B would have an equal and opposite surplus imbalance. Country A’s exchange rate would look overvalued and Country B’s undervalued.

Policy gaps. The analysis of policy gaps would show that there is a domestic policy distortion in Country A that needs adjustment. However, the analysis for Country B would show that there were no domestic policy gaps—instead adjustment by Country A would automatically eliminate the imbalance in Country B.

Implications. At the current time, fiscal policy is the area where it is most important to distinguish between domestic and foreign policy gaps (as the contribution of foreign policy is most marked). As discussed later, an elimination of the fiscal policy gap in deficit advanced economies could help reduce surplus imbalances in other economies by around 1 percent of GDP.

Box 6. Use of the External Balance Assessment (EBA) Methodology in the ESR

The EBA methodology was introduced in the 2012 Pilot External Sector Report. The original model has been updated to reflect feedback received during outreach around last year's report as well as continued work on refining the model. The key innovations are summarized in Annex III, but the basic approach remains unchanged.

The EBA analyzes current accounts and exchange rates based on both economic characteristics and, unlike CGER, the roles of policies—and of potential policy distortions. Like CGER, the EBA methodology draws on panel regressions to derive values of current accounts and exchange rates that would be consistent with an economy's "fundamental" characteristics, such as demographic factors and the level of economic development. EBA also includes policies—fiscal, monetary, public health expenditure (which influences household saving), capital controls and foreign exchange intervention. For each of these policies, staff assessments of desirable policy settings offer a view on policy gaps. EBA also includes a third approach that focuses more narrowly on assessing the external sustainability of NFA positions and current account balances (this is the CGER's "ES" approach).

The output of the EBA analysis is a set of estimated "Total Gaps" for both current accounts and real exchange rates. These gaps are the sum of the estimated contributions of the various "policy gaps" – which in turn consist of separately-estimated contributions of domestic policy gaps and foreign (i.e., spillover) policy gaps – and a regression residual.

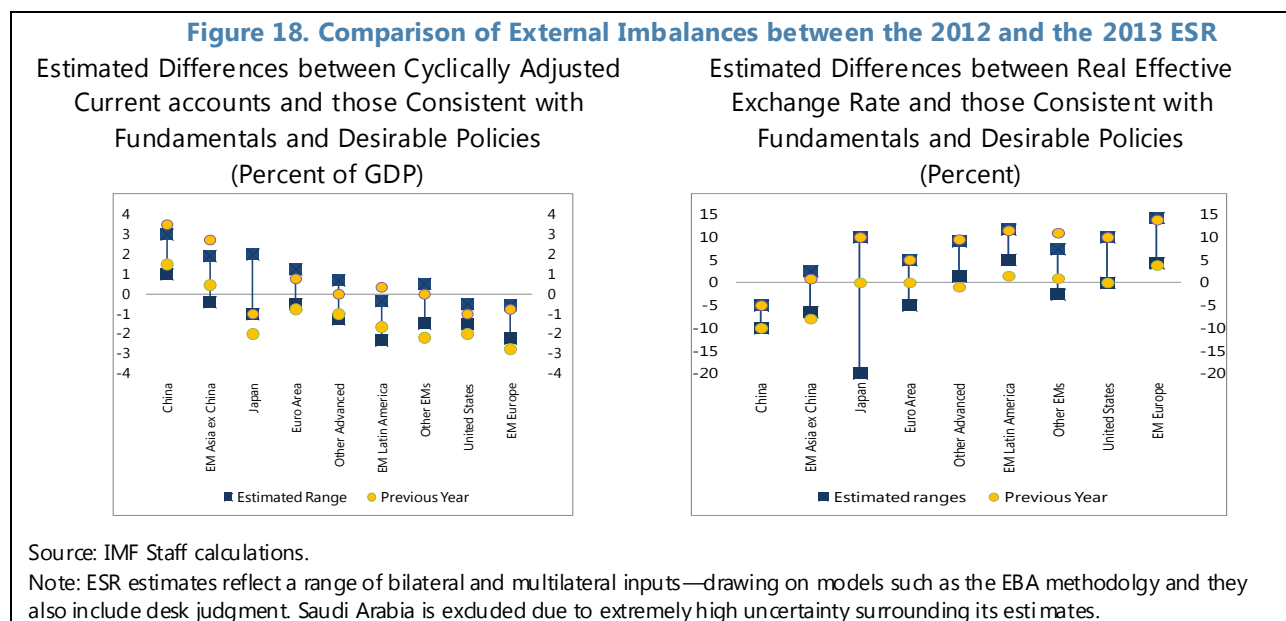
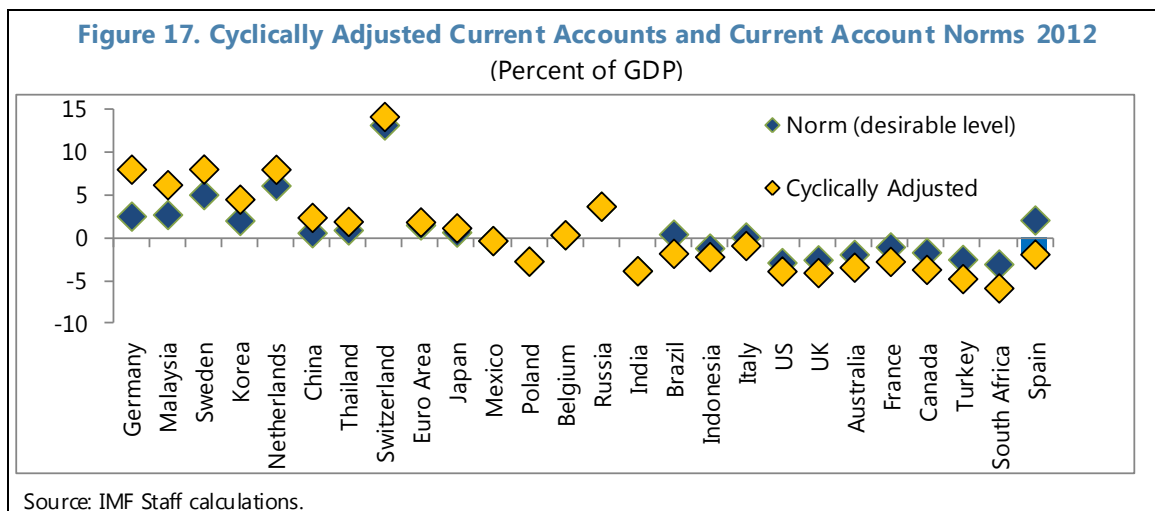
The current account and exchange rate estimated gaps shown in the ESR reflect not only the EBA estimates but other information and judgment. A judgment may need to be made on whether EBA residuals reflect only distortions not captured by the EBA regression model or instead reflect fundamentals missed by the model. For some countries, one of the EBA approaches may fit much better than the others, in which case this would become the basis for the ESR estimate. The separate EBA analyses of current accounts and exchange rates may not be equally reliable. In general, the current account approach, which takes full account of cross-country information, is likely to be more accurate since real exchange rate indices cannot be compared across countries, estimates of real exchange rate gaps are strongly influenced by past levels and are often sensitive to the sample period. However, where special difficulties may apply to the current account analysis, the exchange rate regression-based approach may be more reliable. Thus, the gaps reported by the ESR may differ somewhat from the EBA estimates, but there are very few cases in which the ESR gap assessments are in the opposite direction to the EBA estimates. Recognizing the uncertainty inherent in the EBA econometrics and in the interpretation of the policy gaps and regression residual, the ESR reports current account and exchange rate gaps as ranges.

An essential feature of the EBA methodology is its multilateral consistency; this is preserved in the set of ESR gaps. That is, current account gaps "add up" in the sense that assessments of too-strong balances are matched by those of too-weak balances. The same holds for real exchange rates.

Assessments

27. **Overall imbalances are around ¾ percent of global GDP, slightly lower than last year.** With the exception of Japan, external sector imbalances are broadly similar to last year, but slightly lower for China and emerging Asia and the U.S. (Figures 17 and 18). The 2012 report noted that current account divergences and imbalances had narrowed with the cycle, but remained around double those consistent with fundamentals and desirable policies. Staff's latest assessment is that

the range of dispersion of external sector gaps—measured both by looking at the current account and the real exchange rate—has narrowed a little, with the same economies as last year having excess surpluses or deficits and with the largest economies Germany, China, the euro area deficit economies and the U.S. accounting for around two-thirds of the global external imbalance. Imbalances have narrowed for surplus economies such as China and emerging Asia and for deficit economies like the U.S. as well as other emerging economies. Elsewhere, imbalances are broadly the same as last year or have widened a little. For Japan, the assessment is complicated by the sharp depreciation of the yen since 2012Q3.



28. **Five key features stand out:**

- **External imbalances for China and emerging Asia have durably narrowed since 2008, with a further narrowing in 2012 reflecting a number of factors, some of which are permanent**

and others possibly temporary. For China, there has been a marked reduction in the external surplus since 2008 which reflects some demand rebalancing given weaker external demand. The narrowing of current account surpluses for China, Malaysia, and Thailand in 2012 and some further appreciation of exchange rates through May 2013 should help to reduce imbalances over the longer term. In 2012, narrower surpluses also reflected lower inflows during the period of heightened global risk. However, as risk aversion has declined, capital inflows have placed upward pressure on exchange rates and reserve accumulation has picked up in early 2013 (Figure 19).

- **The U.S. imbalance narrowed slightly in 2012**, and is expected to narrow further in 2013. This reflects small improvements in the current account deficit, driven primarily by lower oil prices and increased domestic energy production.

- **While the euro area’s external position appears broadly in line with medium-term fundamentals and desired policies, this masks continued wide divergences among economies.** Within the euro area, external

sector imbalances are broadly the same as a year ago—with large imbalances between the surplus economies of Germany and the Netherlands and the deficit economies (Figure 20). As described in Box 7, it is difficult to identify the precise drivers of the large external imbalance in the surplus euro area economies. Current account deficits in the peripheral countries shrank as a result of both structural (including rising productivity, and trade gains) and cyclical factors (notably the deep contraction of domestic demand and higher unemployment).

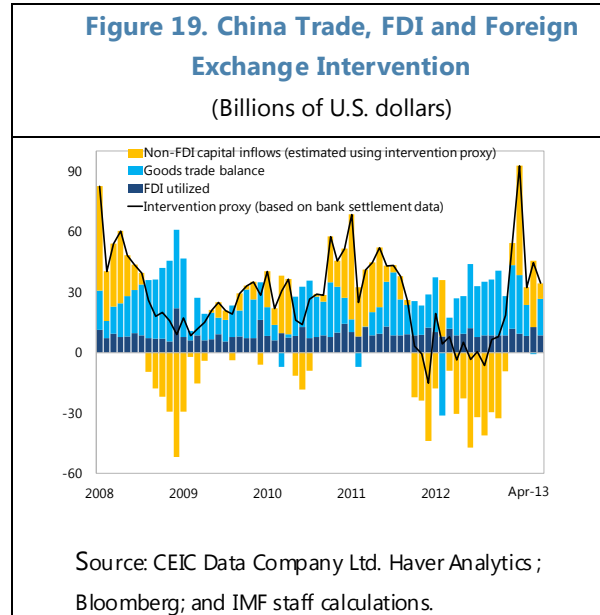
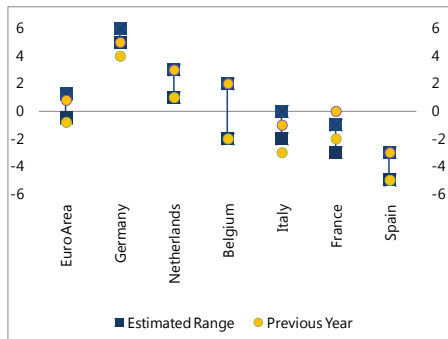


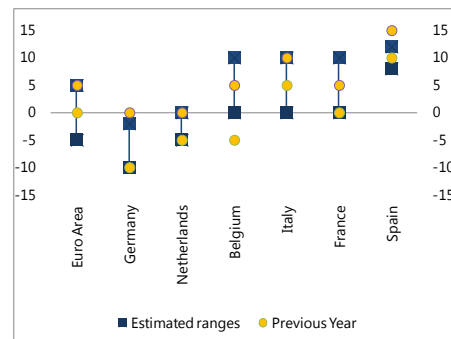
Figure 20. Comparison of External Imbalances between the 2012 and 2013 ESR

Estimated Differences between Cyclically Adjusted Current accounts and those Consistent with Fundamentals and Desirable Policies (Percent of GDP)



Source: IMF staff calculations. (see Figure 18 for details).

Estimated Differences between Real Effective Exchange Rate and those Consistent with Fundamentals and Desirable Policies (Percent)



Source: IMF staff calculations. (see Figure 18 for details).

Box 7. Cases Where External Sector Assessments Are Particularly Challenging

Assessing the overall external sector position can be relatively straightforward where the EBA methodologies and other evidence such as changes in market shares all point in the same direction and accord with economic priors. However, there are cases where the models do not point in the same direction, where special features of an economy need to be taken into account and where deeper analysis is necessary to understand the policy distortion giving rise to the external imbalance. Thus country-specific circumstances and qualitative analysis have an important role to play in any assessment of the external sector position. The following are examples:

Nonrenewable resource exporters. Such economies generally run large current account surpluses and accumulate foreign assets during the extractive stage in order to smooth consumption once the nonrenewable resources have been exhausted—as implied by Permanent Income Hypothesis/intergenerational equity models. Assessing how much to save/invest is complicated due to the unpredictability of commodity prices, uncertainties on future technological changes on both supply (such as the shale gas revolution) and on demand, identifying permanent versus temporary shocks and the risk that large fluctuations in resource revenues may result in real exchange rate volatility and potentially “Dutch disease” effects. Assessments for economies with spare oil production capacity, notably Saudi Arabia, are further complicated by fluctuations in their production in order to stabilize the global oil market rather than any particular concern on their external position.

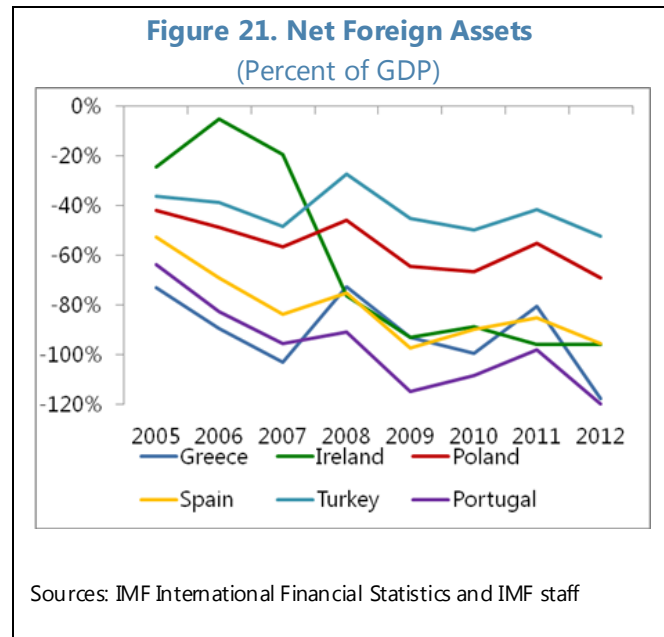
Financial centers. These economies often have large current account surpluses reflecting strong NFA positions and high investment income (the trade balance may only be a small part of the current account). Assessing the appropriate external sector position needs to consider the NFA buffer that may be appropriate for a financial center to have to safeguard against financial shocks. In addition, current account measurement and interpretation issues can be acute in relatively small economies that are home to large multinational firms that have large foreign assets and foreign liabilities: in particular if those multinationals have equity liabilities (shares) that are held in large part by foreign investors. This is the case in Switzerland—Mancini-Griffoli and Stoffels (2012) estimate that the standard measure of the current account surplus tends to overstate Switzerland’s accumulation of wealth by about 2½ percent of GDP annually and this is taken into account in the IMF’s assessment.

Persistently strong external positions (Germany and Sweden). For Germany, it is difficult to identify any specific domestic policy gaps that have led to the persistent external sector imbalance. Instead, the imbalance may reflect policy gaps elsewhere—for example structural weaknesses in other economies in the euro area and the need for fiscal consolidation in other advanced economies. Cross-country comparisons suggest that a low investment rate compared to other economies may also be a source of the imbalance. Policies to raise Germany’s investment rate and domestic demand, including making the tax structure more growth friendly and reforming the financial sector, could help. For Sweden, its role as a financial center for the Nordic and Baltic region could have led to higher surpluses. In addition, recent pension reforms may have induced a higher savings rate than other similar countries.

Persistently weak external positions (Australia and South Africa). The Australian economy has run with a current account deficit since 1861 (with an average deficit of 4¼ percent of GDP since 1988) but the persistent savings–investment imbalance is not captured by the fundamentals specified in the EBA model. Staff’s assessment is that part of the weaker external position is explained by an investment boom which is projected to peak in coming years. For South Africa, despite a sharp depreciation of the rand in the first half of 2013, the wide current account deficit reflects structural competitiveness concerns. Yet, the many fundamental changes in the economy since the end of the apartheid regime and a volatile exchange rate also make the assessment of the real exchange rate and the external sector position difficult. Cross-country comparisons suggest that South Africa’s national savings rate is particularly low. Some tightening of macro-prudential policies to reign in credit growth could help raise national savings but more comprehensive labor and product market reforms to tackle the very high levels of unemployment and social exclusion would be needed to bring about a large increase in household saving.

- **The external sustainability approach highlights the need for a narrowing of current account deficits for a number of economies with high negative NFA positions.** For

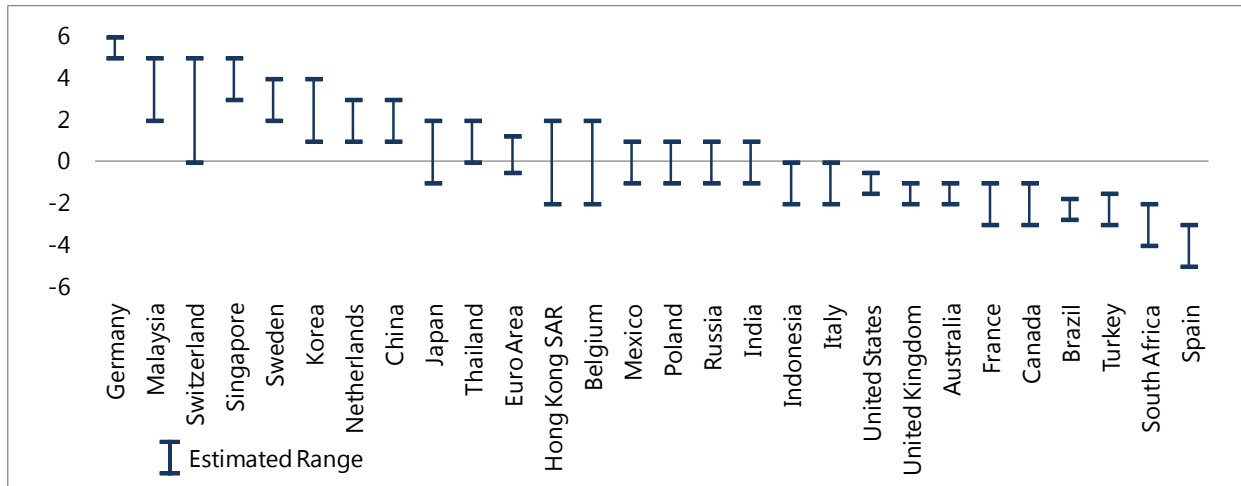
economies in the euro area with high negative NFA positions, small current account surpluses (Portugal and Spain) or small deficits (Greece and Ireland) would be needed over the medium term to generate a significant improvement in the NFA position. Although current accounts narrowed in 2012 and surpluses were recorded in Ireland and Portugal, NFA positions continued to widen in some countries as current accounts remained weaker than their NFA/GDP-stabilizing levels, amid low or negative output growth in some cases. In Turkey, the composition of the IIP has deteriorated in recent years, with short term liabilities accounting for a growing fraction of total liabilities.



- **Recent major changes to Japan's macroeconomic framework make an assessment of the external position subject to an unusual degree of uncertainty.** The depreciation of the yen since 2012Q3 likely reflects both a dissipation in safe haven flows and the fundamental changes to the policy framework which are hard to disentangle (as well as other factors such as higher energy imports following the great Japan earthquake of 2011). The substantial changes to the policy framework may also have far reaching effects on expectations, inflation, and growth. While the real exchange rate currently appears moderately undervalued relative to fundamentals, this results from the critical and welcome attempt to decisively exit from deflation. Over the medium-term, if the other key arrows of the strategy—namely fiscal consolidation and structural reforms to open up product markets and raise labor supply—are implemented in a comprehensive and credible way, the expectation is that the current account/currency could well move to levels broadly consistent with fundamentals and therefore the yen's recent depreciation is not seen as necessarily problematic.

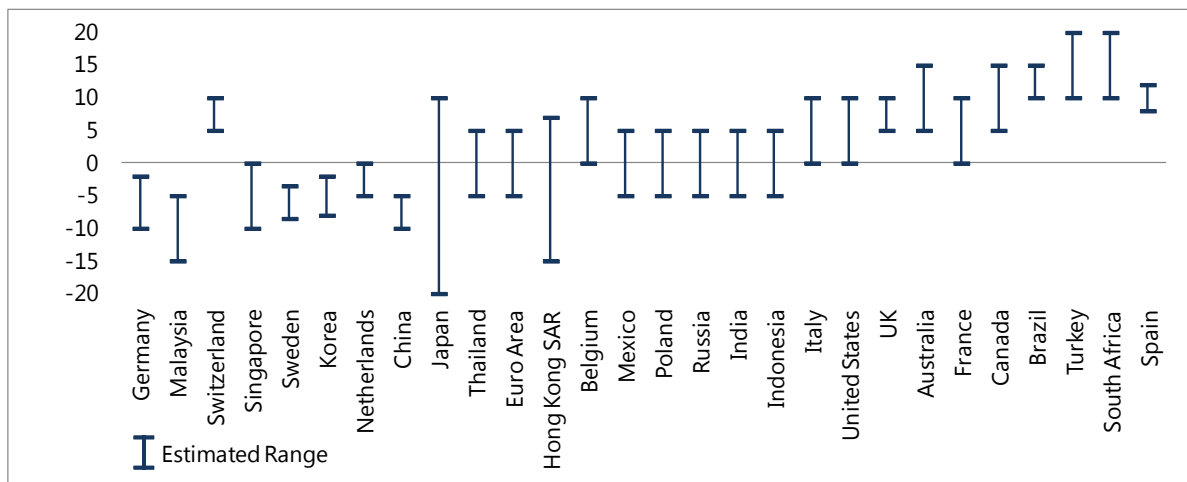
Figure 22. Estimated Differences between Cyclically-Adjusted Current Accounts and those Consistent with Fundamentals and Desirable Policies

(Percent of GDP)



Estimated Differences between Real Effective Exchange Rates and those consistent with Fundamentals and Desirable Policies

(Percent)



Source: IMF Staff calculations (see Figure 18 for details).

POLICY CHANGES TO REDUCE EXTERNAL IMBALANCES

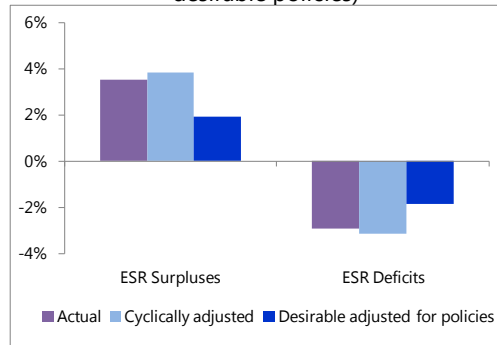
Many economies still need to take policy actions to reduce imbalances.

29. **While cyclical factors have played a role in narrowing global imbalances, addressing remaining policy gaps will be key to closing imbalances.** Actual current account gaps are smaller than the cyclically adjusted in most countries and country groupings but the cyclical factor is less than 0.5 percent of GDP (Figure 23). Policy gaps, on the other hand, are much larger and need to be addressed in order to close global imbalances. Needed actions differ by country (Figure 24).

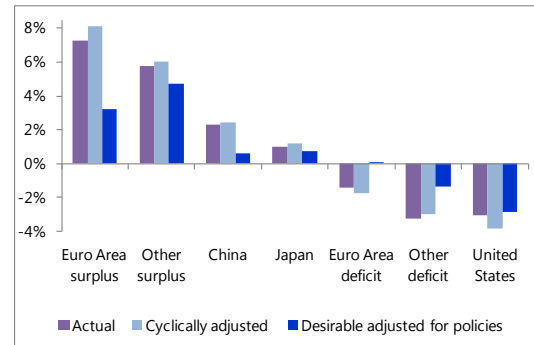
Figure 23. Estimated Impact of Cyclical Factors and Policies on Current Accounts 2012

(Percent of economies' regional GDP based on mid points of staff estimates)

Stronger/Weaker External Positions
(than consistent with medium-term fundamentals and desirable policies)



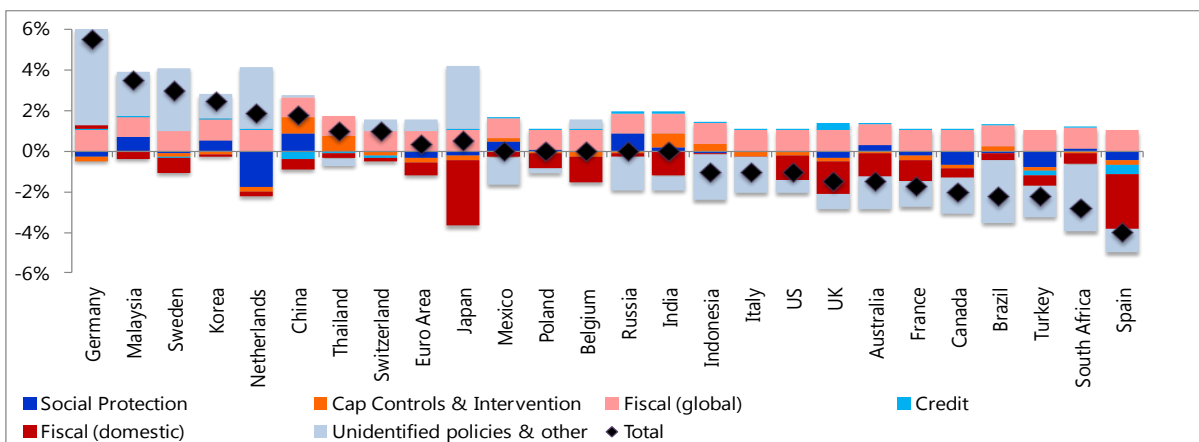
Regional Groupings



Source: IMF Staff Calculations.

30. **For AEs, some progress has been made in bringing down general government deficits as a percent of GDP.** The Fiscal Monitor notes that fiscal deficits narrowed on average by some $\frac{3}{4}$ percent of GDP in cyclically adjusted terms and the average pace of consolidation is expected to pick up to $1\frac{1}{4}$ percent of GDP this year. Yet, global fiscal imbalances remain a significant contributor to external sector imbalances—adding around 1 percent of GDP to the current accounts of other economies (see Figure 24).

Figure 24. Individual Economies: Contribution of Policies to Current Account Gaps (2012)
(Percent of GDP, based on midpoint of staff estimates)



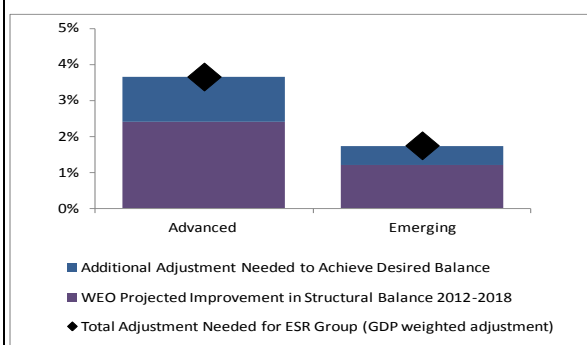
Source: IMF staff calculations from EBA, incorporates desk judgment.

Note: Policy contributions are estimates from EBA (see EBA methodology paper) of how much deviations from desirable policies contribute to the gap between the cyclically adjusted current account and that consistent with medium-term fundamentals and desirable policies. Deviations are measured for each economy relative to a global benchmark. For fiscal policy, the gaps are shown separately as a domestic policy contribution and a global fiscal contribution which illustrates how medium-term fiscal consolidation in the large advanced economies impacts the current accounts of others. The global fiscal policy gap is around 3 percent of GDP which has an effect on current account gaps of around 1 percent of GDP. "Unidentified policies and other" are not solely from EBA but represent all the other factors that affect the current account gap, including uncertainty over the size of the gap (see page 27 and Box 7). In light of the update of the EBA methodology, the policy contributions are not fully comparable with those presented in the 2012 Pilot External Sector Report.

31. **Thus, further progress on the fiscal front for the largest economies would have an important impact on reducing imbalances elsewhere—but the pace of adjustment should be carefully calibrated.** According to WEO projections, around two-thirds of the adjustment will have taken place by 2018 but further adjustment would be needed beyond that horizon. But in the short-term, the pace of fiscal consolidation in the larger AEs, such as the U.S., should not be too aggressive in order to avoid an adverse impact on global growth. Comprehensive reforms are needed in Japan if the monetary easing and the other two arrows of the strategy—medium term fiscal consolidation and structural reforms—are to succeed in ending deflation and achieving self sustaining growth.

32. **Within the euro area, external sector imbalances remain very high and policy actions are needed by both surplus and deficit economies to boost demand.** Large fiscal consolidations are already underway in the economies worst hit by the crisis but they have also faced a steep loss

Figure 25. Fiscal Adjustment Required to Reach the Medium-Term Desired Structural Fiscal Position



Source: IMF International Financial Statistics and IMF Staff Calculations.

Note: The desired structural fiscal position is from EBA and is based on desks' judgement on the structural fiscal position that would be desirable in the medium-term.

of output and very large increases in unemployment. To replace lost output and move economies back towards full employment, further relative price adjustments are needed that could be supported by product and labor market reforms. To support the adjustment, those economies with strong external sector positions should aim to boost domestic demand and investment which would support growth in the euro area and also help reduce their sizeable external sector imbalances. More generally, a key imperative is to avoid deflation in the euro area and this may mean living with a period of above target inflation rates in some economies such as Germany,

33. **Among EMs with strong external positions, policy gaps have been reduced since the crisis but remaining gaps include inadequate social safety nets, and capital controls and intervention.** For economies such as China and emerging Asia, structural reforms to improve social safety nets, to strengthen the financial sector, and to encourage rebalancing towards domestic demand would help lower imbalances. Further exchange rate flexibility and carefully sequenced capital account liberalization would also result in a better allocation of resources, even if the impact on net capital flows is uncertain.

34. **Among EMs with weak external positions, policy gaps point to the need for some fiscal consolidation and structural reforms.** Fiscal deficits in a number of EMs have contributed to weaker external positions, although the degree of consolidation needed is not as much as for AEs. In addition, EMs such as Brazil, South Africa and Turkey could undertake a variety of structural reforms that would help to raise currently low private saving rates over the medium term.

LOOKING AHEAD

35. **With global growth still weak and policies remaining focused on supporting growth, the policy gaps underlying remaining global imbalances are only likely to be closed gradually and many of the policy challenges that emerged in 2012 are likely to remain.**

36. **Global imbalances are not likely to close much further in the short term.** As highlighted in the WEO, as output gaps close, current account balances are projected to move broadly sideways. The exceptions are China, where the current account surplus is projected to pick up somewhat, and oil exporters, where a reduction in surpluses is expected given a projected decline in oil prices into the medium term. Policy gaps underlying the global imbalances are dominated in most of the larger economies by fiscal policy gaps, which are likely to close only slowly due to the need to support growth.

37. **Capital flows are likely to remain volatile.** The key factors shaping the distribution of flows—relative differences in growth prospects across economies, global risk appetite, and interest rate differentials—can all shift quickly. How capital inflows are absorbed will be important. The overall mix of macroeconomic policies will be important as well as sound financial supervision and regulation (to help contain financial stability risks or potential bubbles). Macro-prudential policies could also play a role. Capital flow management measures may be useful in some circumstances, but they should not substitute for warranted macroeconomic adjustment.

38. **Potential capital reversals could pose new challenges.** While capital inflows have provided new opportunities for many economies—both at the sovereign and corporate level—they have brought new risks. EM assets could prove vulnerable to changes in the external environment, notably an eventual rise in global rates amid either heightened uncertainty or signs of recovery in major economies. In particular, greater leverage exposes corporates to interest rate and exchange rate risk with potential knock on effects for financial stability. While the recent rebound of capital inflows has reduced yields and improved the currency composition of EM sovereign debt, the higher share of foreign holding of EM bonds increases the risk of reversal in capital flows. Similar concerns also apply to the frontier markets currently experiencing new access to financing, which needs to be managed carefully and be consistent with debt sustainability assessments.

39. **Trade liberalization is a key tool for durable, inclusive growth, and all efforts should be made to ensure access to the global trading system for all.** Recent bilateral and regional trade initiatives can be complementary to multilateral liberalization, but it is important that these initiatives be transparent, trade-creating, and open. There is, though, a risk of increased fragmentation in the multilateral trading system, producing concerns on exclusion from, or discrimination against, those countries outside such agreements. Continuing efforts should be made in resisting trade-restrictive measures.

40. **International policy coordination is crucial.** Policy actions both in key surplus and deficit economies could help promote healthier rebalancing (Spillover Report, 2013a). This could involve coordination of fiscal consolidation strategies, of the scope and timing of adjustments of monetary policy stances, and of actions to strengthen financial stability to remove tail risks.

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Annex I. Determinants of Capital Inflows—Structural Versus Temporary Factors

This Annex assesses the determinants of capital flows into emerging markets (EMs) for both the pre and post-crisis period. While structural factors have remained important, those factors that are at greater risk of reversal, especially global risk appetite, have become stronger drivers of capital flows into EMs over the post-crisis period.

1. **This note explores the relative importance of structural and temporary factors as drivers of capital flows into EMs.** Previous literature has sought to distinguish between *push* and *pull* factors as determinants of capital inflows. Here, instead the focus is on *structural* (or slow-moving) factors and more *temporary* factors that may be at greater risk of reversal.
2. **The analysis uses annual data on 42 EMs over the period 2003–2011.** The post crisis period is taken to be 2008–11 (excluding 2008 produces similar results). The capital flow variables and the explanatory variables used are defined in Table A.1. Table A.2. shows the summary statistics for the data over the whole period, and Figure A.1 shows the evolution of selected variables over the pre and post-crisis period.
3. **Key findings (from Table A.3):**
 - Capital flows into EMs remain strongly driven by growth differentials with AEs. The importance of growth differentials is unchanged relative to the pre-crisis period.
 - A number of other more structural variables are found to affect the direction of capital flows: capital flows are stronger into countries at a greater level of financial development (measured by stock market capitalization) and weaker for countries at a greater risk of default (as measured by government debt levels relative to GDP).
 - Most of these structural factors (growth differentials, financial development and debt levels) have remained important throughout the period. However, investors appear to have become more forgiving of high government debt levels after the crisis.
 - As regards temporary factors, capital flows are now driven more strongly by investor risk appetite (measured by the VIX and euro area spreads). There is also some evidence that the importance of interest differentials as drivers of capital inflows has increased since the crisis.

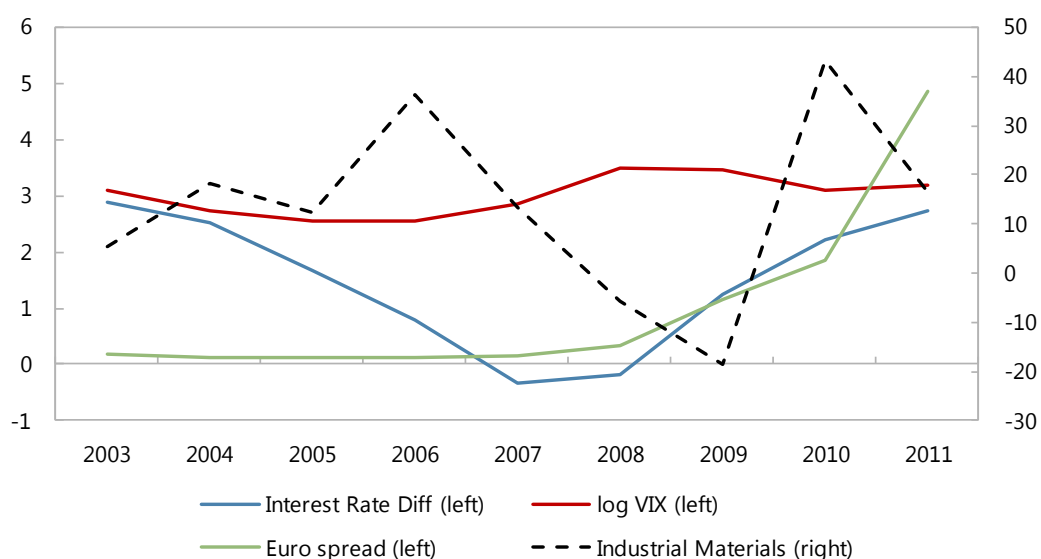
Table A.1. Variables

Variable	Unit	Description	Source(s)
Capital Flows			
Inflows	Percent of GDP	Liabilities of Reporting Country	
FDI	Percent of GDP	FDI Liabilities of Reporting Country	IFS
Portfolio: Equity	Percent of GDP	Portfolio Equity Liabilities of Reporting Country	IFS
Portfolio: Debt	Percent of GDP	Portfolio Debt Liabilities of Reporting Country	IFS
Other	Percent of GDP	Other Liabilities of Reporting Country	IFS
Growth differential	Percent	Real GDP per capita growth differential with AE	WEO
Inflation	Percent	CPI Inflation, year-on-year percent change	WEO
Market Capitalization	Percent of GDP	Stock Market Capitalization: proxies liquidity	WDI
Government Debt	Percent of GDP	General Government Debt	WEO
ICRG Composite	Index	Political, Financial, and Economic Risk Rating	ICRG
Interest Rate differential	Percent	Real Short Term Interest Rate differential with AE	WEO, IFS
VIX Index (log)	Logarithm	Log of S&P500 Implied Volatility Index	Haver
Euro Periphery/Core Spread	Percent	Periphery average yield minus German bond yield	Haver
Industrial Materials Index	Percent	Commodity Index: annual percent change	PCPS

Table A.2. Summary Statistics

<i>Variable</i>	<i>Obs</i>	<i>Mean</i>	<i>Std. Dev.</i>	<i>Min</i>	<i>Max</i>
<i>Full Sample (2003-2011)</i>					
Inflows (% of GDP)	366	7.0	9.2	-23.5	59.9
FDI	366	4.4	5.1	-16.1	51.9
Portfolio (Equity)	321	0.3	1.0	-4.6	5.7
Portfolio (Debt)	275	0.8	2.0	-6.2	10.5
Other	362	2.0	6.0	-28.3	40.5
Inflows (excl. FDI)	366	2.6	6.4	-28.3	39.9
Growth Differential	369	3.0	3.8	-13.1	18.4
Inflation	369	6.5	4.8	-1.2	31.1
Market Cap (% of GDP)	369	47.7	50.0	0.2	299.0
Gov Debt (% of GDP)	360	39.2	23.2	3.9	139.4
ICRG Composite	369	70.8	6.3	53.7	84.7
Real Interest Rate Differential	369	1.5	4.7	-12.2	27.1
Log VIX	9	3.0	0.3	2.5	3.5
Euro Spread	9	1.0	1.5	0.1	4.9
Commodities (Ind. Mat.)	9	13.7	18.0	-18.5	43.2

Source: Staff Calculations.

Figure A.1. Evolution of Temporary Factors

Sources: Haver, WEO, IFS, PCPS and Staff Calculations.

Table A.3. Regression Results*(Dummy=1, if year=2008-2011)*

VARIABLES	<i>Dep. Var.: Capital Inflows (excl. FDI)</i>						
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Growth Differential (lag)	0.30** (0.15)	0.35** (0.16)	0.35* (0.18)	0.34* (0.18)	0.34* (0.18)	0.31* (0.16)	0.35** (0.17)
Inflation (lag)	-0.01 (0.05)	-0.00 (0.05)	-0.01 (0.05)	-0.01 (0.05)	-0.01 (0.05)	0.01 (0.05)	0.02 (0.05)
Interest Rate Differential (lag)	-0.01 (0.04)	0.03 (0.05)	-0.02 (0.05)	-0.01 (0.05)	-0.01 (0.05)	-0.08 (0.06)	-0.08 (0.07)
Government Debt	-0.09*** (0.03)	-0.08*** (0.02)	-0.10*** (0.03)	-0.11*** (0.03)	-0.11*** (0.03)	-0.11*** (0.03)	-0.12*** (0.03)
Market Capitalization	0.02*** (0.01)	0.02*** (0.01)	0.02*** (0.01)	0.02*** (0.01)	0.02** (0.01)	0.02** (0.01)	0.02** (0.01)
ICRG Composite (Risk)	-0.12 (0.12)	-0.07 (0.12)	-0.15 (0.12)	-0.17 (0.12)	-0.17 (0.12)	-0.18 (0.12)	-0.19 (0.12)
VIX	-4.27*** (1.08)		-2.11* (1.12)	-1.95* (1.10)	-1.90* (1.10)	-1.91* (1.11)	-0.58 (1.17)
Euro Spread	-0.24 (0.18)	-0.627*** (0.23)	0.09 (0.17)	0.04 (0.16)	0.05 (0.16)	-0.02 (0.15)	-0.31** (0.15)
Industrial Materials Index		0.06*** (0.02)					
Dummy * Growth Differential (lag)			-0.10 (0.16)	-0.09 (0.16)	-0.10 (0.16)	-0.07 (0.16)	-0.08 (0.16)
Dummy * Government Debt				0.07** (0.03)	0.07** (0.03)	0.06* (0.03)	0.06* (0.03)
Dummy * Market Capitalization					0.01 (0.01)	0.01 (0.01)	0.01 (0.01)
Dummy * Interest Rate Diff (lag)						0.24* (0.13)	0.23* (0.13)
Dummy * VIX							-6.14** (2.76)
Dummy			-2.07* (1.10)	-4.64** (1.84)	-4.82** (2.10)	-5.04** (2.12)	15.19* (8.61)
Constant	26.30*** (8.93)	8.68 (7.59)	22.43*** (8.59)	23.93*** (8.41)	23.68*** (8.41)	25.03*** (8.41)	22.03*** (8.30)
Observations	353	353	353	353	353	353	353
R-squared	0.13	0.11	0.14	0.17	0.16	0.17	0.18
Number of Countries	41	41	41	41	41	41	41

Panel data, random effects estimation over 2003-2011. T=9, n=41. Robust standard errors in parentheses.

*** p<0.01, ** p<0.05, * p<0.1.

Annex II. Central Bank Motivation for Holding or Accumulating Reserves

Advanced economies

Australia. Assistant Governor Guy Debelle, Reserve Bank of Australia, 2013: “The primary motivation is to provide the capacity for the Bank to intervene in the foreign exchange market when necessary ... in 2008–09, the Bank was able to deploy its reserves to inject liquidity into the market ... to ensure the depreciation was orderly, without excessive price gapping that is, avoiding the exchange rate moving by large amounts from one transaction to the next, which only tends to exacerbate market dysfunction.”

New Zealand. Governor Graeme Wheeler, Reserve Bank of New Zealand, May 30, 2013: “investors seem undeterred by the fact that our exchange rate is over-valued, the current account deficit is sizeable and private sector external indebtedness is high. For the current exchange rate to be sustainable in the long term, sizeable increases in the terms of trade and/or productivity would be needed. Investors also appear to downplay the liquidity risks inherent in a small market like New Zealand. This is reflected in our past exchange rate cycles that have exhibited substantial overshooting followed by sharp and rapid exchange rate depreciation. The Reserve Bank has been responding to the rising exchange rate through two avenues: in maintaining the Official Cash Rate (OCR) at an historically low level; and through a degree of currency intervention. The downward pressure on inflation exerted by the high exchange rate means that the OCR can be set at a lower level than would otherwise be the case. In recent months we have undertaken foreign exchange transactions to try and dampen some of the spikes in the exchange rate. But we are also realistic. We can only hope to smooth the peaks off the exchange rate and diminish investor perceptions that the New Zealand dollar is a one-way bet, rather than attempt to influence the trend level of the Kiwi. ”

Switzerland. Thomas Jordan, Chairman of the Governing Board of the Swiss National Bank, 26 April 2013: “It is the SNB’s statutory mandate to ensure price stability, while taking economic developments into account. With money market interest rates already close to zero and conventional monetary policy options exhausted, we would have no longer been able to fulfill this mandate without the introduction of a minimum exchange rate.”...“An appreciation of the Swiss franc would have caused an inappropriate tightening in monetary conditions, which in turn would have compromised price stability and had serious consequences for the economy.”

Emerging markets

Brazil, Governor Alexandre Tombini, 2012: “The policy of accumulation of international reserves has not been relinquished. ...If market conditions permit, we will resume the accumulation of reserves.” [Governor Tombini’s statement to FT during the BRICS summit in South Africa, 2013: “The purpose of [this] swap is...[that it] is sufficiently large to guarantee normal trade operations.”]

India. Shri Deepak Mohanty, Executive Director, Reserve Bank of India, 2012: "... [T]he increase in foreign exchange reserves in the overall external assets of EDEs...has provided a counterweight to risk taking by the private sector. Of course, it is another debate as to how much of reserve is adequate and at what level benefits outweigh costs. But there is no disagreement that reserves provide inherent strength and stability to an economy, particularly EDEs."

South Africa, Deputy Governor Daniel Mminele, South African Reserve Bank, 2013: "... A higher reserves cushion will not only make South Africa more resilient in crisis situations and in the wake of volatile capital flows, but should also help to increase policy flexibility, for example, if exchange rates are perceived to have deviated significantly from what is considered "fair value" as suggested by macro-economic fundamentals."

Annex III. EBA Methodological Refinements

1. The first version of EBA was applied in the 2012 Pilot External Sector Report; this year's report draws on an enhanced "version 2.0" of the methodology. The more significant refinements, including a broader analysis of the role of policies, are set out below. (The new version is described fully in a background paper on the EBA methodology).
2. **Financial excesses, as an indirect indicator of the policies responsible for avoiding such excesses.** It is well recognized that financial excesses—and the failure of policies to prevent them—may result in demand booms, weakening current accounts, and real appreciation. Such excesses and policy shortfalls are inherently difficult to quantify, but EBA now uses the ratio of private credit to GDP as a proxy. Notably, this indicator explains some part of the deterioration of some countries' current accounts in the pre-crisis years. More recently, however, credit excesses are not widespread, in the judgment of Fund staff.
3. **Monetary policy.** EBA now uses interest rate differentials, adjusted for inflation differentials—and for a few countries, roughly adjusted also for unconventional monetary policies—to proxy for the effect of monetary policy on the exchange rate. The EBA model confirms that monetary policy helps explain movements of real exchange rates, but with the strength of that link depending on the degree of openness to capital flows. In addition, if current monetary policy is judged by Fund staff to be inappropriate to a country's inflation and output stabilization needs, the EBA method allows for such a monetary policy gap to contribute to a country's overall REER gap. On the other hand, monetary policy is not found to contribute significantly to current account developments, likely because it has offsetting effects (e.g., monetary policy easing both stimulates domestic demand and weakens the exchange rate, with opposite effects on the current account).
4. **Foreign exchange intervention.** The causal effect of intervention policy is difficult to identify and to measure precisely and robustly, and remains an area for further research. EBA now estimates this effect, which is found to depend on the presence of capital controls, in the analysis of the real exchange rate as well as the analysis of the current account.
5. **Risk and the institutional/political environment.** The EBA analysis of current accounts is now informed by an indicator of such risks based on ICRG survey data. Although risks of this kind are difficult to measure precisely in any one country, the strong overall empirical finding is that such risk indicators are significantly associated with higher rates of investment and lower current account balances. (While some of these risks could be influenced by policy efforts over time, the EBA analysis takes them as given characteristics; i.e., they are not treated as policy distortions driving current account gaps. This reflects the difficulty of accurately gauging both actual risks and of identifying an appropriate level of risk.)
6. **Productivity/level of development.** This is now incorporated in the EBA analysis of both current accounts and exchange rates, using a ratio of an economy's output (income measured in PPP terms) to the size of its working age population, in turn measured relative to economies at the "frontier" of highest productivity. The general finding, within the EBA sample of advanced and

emerging market economies, is that current account balances tend to be lower in economies with a lower level of productivity and income—as economic theory would suggest would be optimal if those economies have a higher expected rate of return on investment—but also that the strength of this pattern depends on the extent to which policies permit capital flows. Accordingly, a relatively poor economy that is also open to capital flows would tend to have a higher investment rate and a lower current account. (Such an economy would also have a more appreciated exchange rate, but that channel is offset by the Balassa-Samuelson effect, in which less-advanced economies have lower prices of non-tradable goods and lower real exchange rates. The EBA regression is now able to pick up each of these effects.)

7. ***Exhaustible resources of oil and natural gas.*** The revised EBA model captures the tendency of countries with energy resource wealth to have current account surpluses, relating this pattern to country’s motivation to save a portion of its income in recognition of the exhaustible nature of that wealth. For all EBA countries that are net exporters of oil (or natural gas, not previously considered by EBA), current accounts are thus positively related not only to the size of such exports but also to their “temporariness,” as measured by the ratio of production to the stock of proven reserves.

8. **The recent effort to enhance the EBA model also explored other areas, with emphasis on structural policies and financial factors (beyond those already modeled in EBA).** Among financial variables, only the private credit variable discussed above was found to be robustly related to current accounts and exchange rates. (See the EBA methodology paper for a description of the hypotheses and data explored.) The lack of strong findings in those areas is not entirely unexpected, in light of the available literature and of data shortcomings, but of course does not mean that such effects do not exist. Structural policies, for example, might have important effects on the speed at which external adjustment occurs, or one-time effects on the investment rate, or sustained effects on both saving and investment, but these may be difficult to detect in a panel regression.

Appendix I. Supporting Charts and Tables

Table A1. Summary of External Position Indicators

Country	2012 Current Account		2012 Net Capital Flows		2012 Reserves Increase	2012 Net Foreign Assets*	Reserve Stock		Estimated Change in REER	Estimated Change in REER
	USD Billions	Percent of GDP	USD Billions	Percent of GDP	USD Billions	Percent of GDP	Ratio to Debt Securities & Other Investment, 2011, Percent	IMF Metric, EMs Only, 2012 Percent	Percent, Dec 2011 to Dec 2012	Percent, Dec 2012 to May 2013
Australia	-56	-3.7	56	3.7	0	-59	4		3.5	-2.2
Belgium	-2	-0.5	6	1.2	1	67	3		-0.5	0.1
Brazil	-54	-2.3	91	3.8	21	-31	83	183	-8.7	7.6
Canada	-67	-3.7	65	3.6	-2	-16	6		2.4	-1.4
China	193	2.3	-97	-1.2	97	21	351	161	1.1	6.5
Euro area	145	1.2	-132	-1.1	13	-8	7		-1.5	0.7
France	-63	-2.4	99	3.8	5	-19	4		-1.3	0.6
Germany	238	7.0	-300	-8.8	2	41	5		-0.9	0.7
Hong Kong SAR	6	2.3	16	6.2	24	278	33		1.3	3.3
India	-93	-5.1	90	4.9	-3	-15	90	166	4.3	6.5
Indonesia	-24	-2.7	25	2.8	0	-38*	56	162	-4.6	6.0
Italy	-11	-0.5	18	0.9	2	-26	8		-0.4	0.5
Japan	59	1.0	-108	-1.8	-38	57	42		-10.4	-17.0
Korea	43	3.8	-32	-2.7	12	-9	78		6.6	-0.1
Malaysia	19	6.1	-7	-2.4	1	4*	93	128	2.0	4.7
Mexico	-9	-0.8	44	3.7	18	-40	48	120	8.9	7.8
Netherlands	65	8.3	-65	-8.4	0	51	2		0.0	1.4
Poland	-17	-3.5	27	5.6	11	-69	40	145	8.4	-0.9
Russia	81	4.0	-56	-2.8	30	7*	108	172	5.4	2.8
Saudi Arabia	177	24.4	-9	-1.2	112	87*	900		0.6	4.5
Singapore	51	18.6	-13	-4.5	26	228	24		8.3	0.8
South Africa	-24	-6.3	24	6.3	1	-7*	54	95	-2.3	-2.9
Spain	-14	-1.1	1	0.1	3	-96	2		0.3	0.2
Sweden	38	7.1	-27	-5.2	-1	-16	7		0.8	1.8
Switzerland	85	13.4	124	19.6	208	154	28		-1.6	-1.8
Thailand	3	0.7	11	3.1	5	-9*	204	298	3.8	6.9
Turkey	-47	-6.1	66	8.3	21	-52	28	115	10.4	3.7
United Kingdom	-91	-3.7	94	3.9	9	-36	1		4.2	-2.8
United States	-475	-3.0	411	2.6	4	-28	4		-1.4	2.3

Sources: Current Account, net capital flows (measured here as changes in the capital and financial accounts (excluding reserve assets, and excluding net errors and omissions), and change in reserves from April 2013 WEO with IMF staff updates where available.

Net foreign assets from the IMF's International Financial Statistics, and with updates from Lane and Milesi-Ferretti, External Wealth of Nations database. REERs from the IMF's Information Notification System.

* Net foreign asset data are in USD. Numbers with asterisks are for 2011. Others are for 2012. Ratios may differ from local currency ratios due to differences in average and end of period exchange rates.

Figure A1. Current Account Balances 2012

(Percent of GDP)

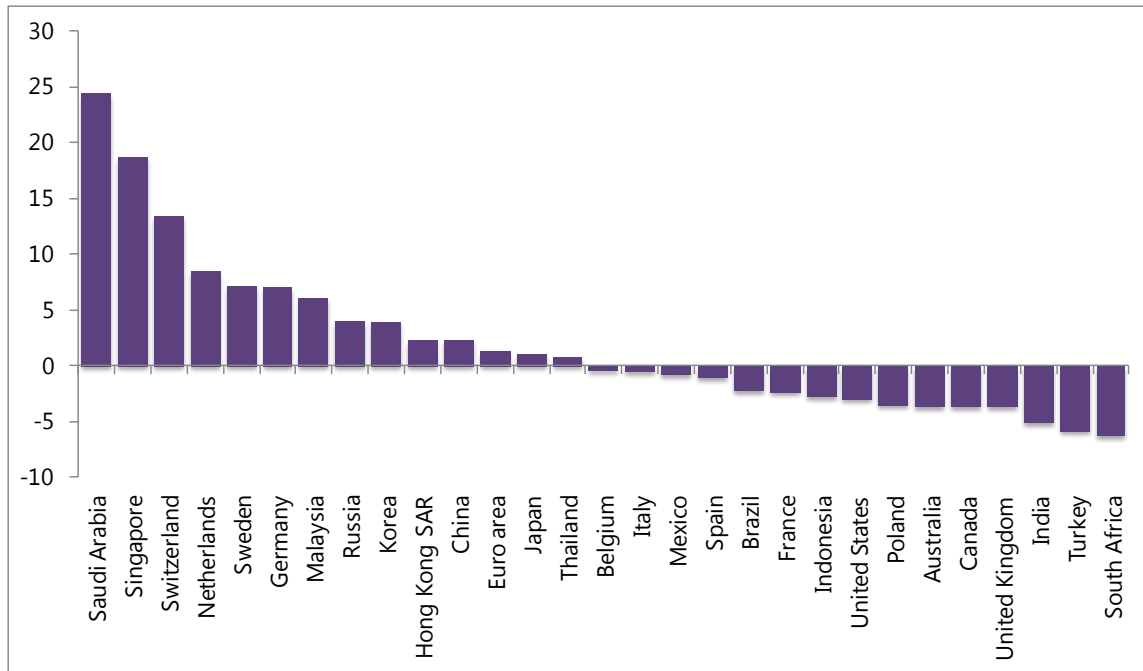


Figure A2. Net Capital Flows 2012

(Percent of GDP)

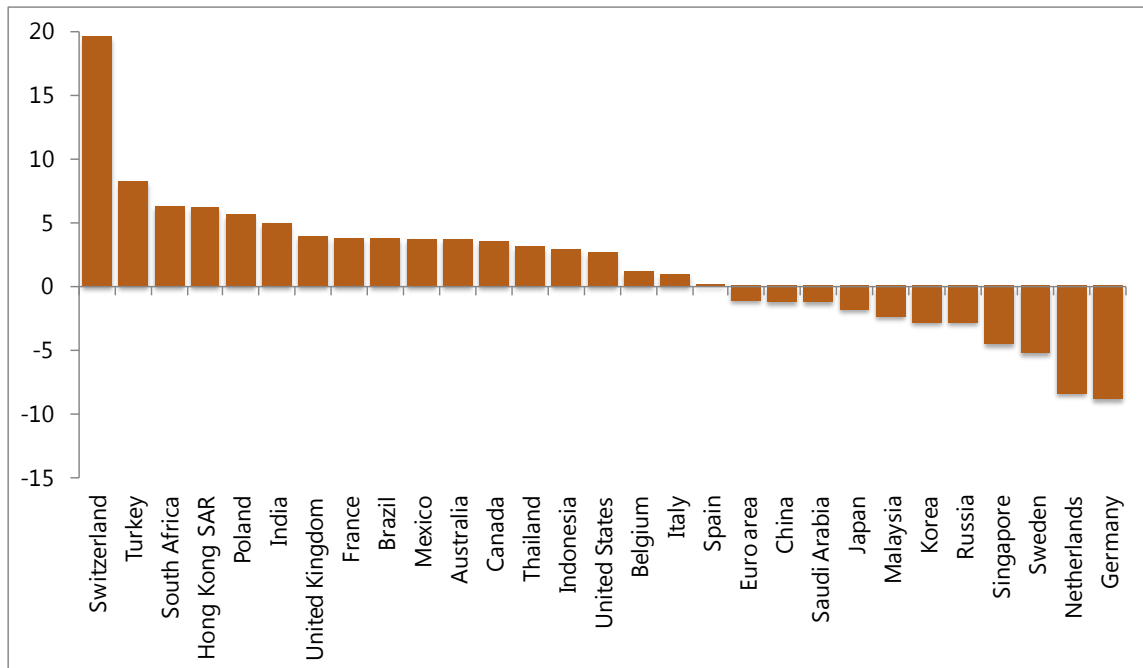


Figure A3. Net Foreign Assets 2011* and 2012

(Percent of GDP)

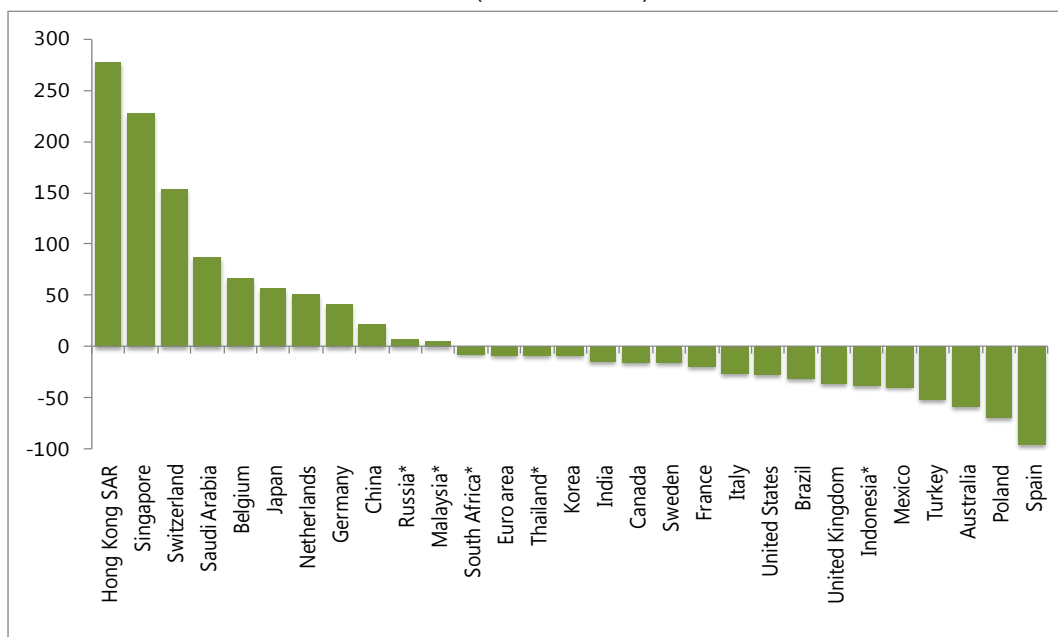
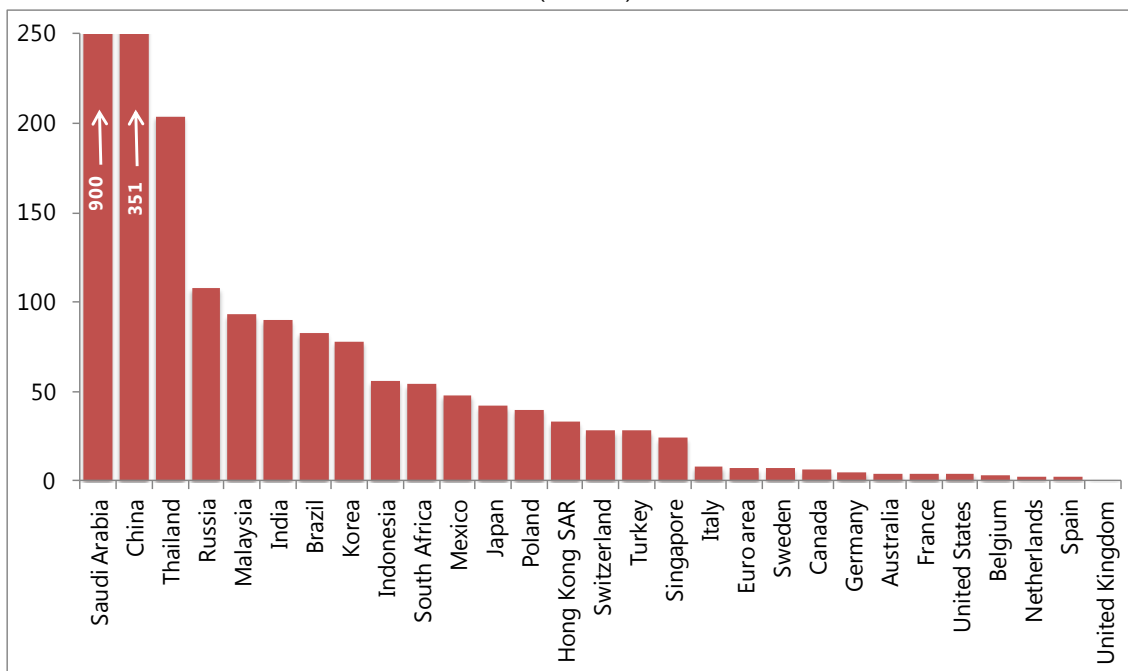


Figure A4. Reserves to Gross Debt 2011

(Percent)



Appendix II. List of Country Groupings for Balance of Payments Analysis

Other Advanced Economies

Australia
Canada
 Czech Republic
 Denmark
 Hong Kong SAR
 Iceland
 Israel
Netherlands
 New Zealand
 Norway
Singapore
Sweden
Switzerland
United Kingdom

Emerging Asia excl China

India
Indonesia
Korea
Malaysia
 Pakistan
 Philippines
 Sri Lanka
Thailand
 Vietnam

Emerging Latin America

Argentina
Brazil
 Chile
 Colombia
 Costa Rica
 Dominican Republic
 Ecuador
 El Salvador
 Guatemala
 Jamaica
Mexico
 Paraguay
 Peru
 Uruguay

Oil Exporters

Algeria
 Bahrain
 Iran, Islamic Republic of
 Iraq
 Kazakhstan
 Kuwait
 Libya
 Oman
 Qatar
 Russia
Saudi Arabia
 Sudan
 United Arab Emirates
 Venezuela
 Yemen, Republic of

Emerging Europe

Bulgaria
 Croatia
 Estonia
 Hungary
 Latvia
 Lithuania
Poland
 Romania
Turkey

Other Emerging Markets

Armenia
 Bosnia and Herzegovina
 Egypt
 Israel
 Jordan
 Lebanon
 Morocco
 Serbia
South Africa
 Tunisia
 Ukraine

Note: Italics indicate countries included in the ESR and hence are the only countries included in analysis of current accounts and policy gaps.