

Asia Macro View

Have Asia's Foreign Exchange Reserves Peaked?

- **Gross FX reserves (and net fwd book) in Asia have *stopped* growing for most.** (HK, VN, and to lesser extent, PH, are exceptions.) This is likely exaggerated by the revaluation effect amid rising DXY and heightened risk aversion prompting net capital outflows during late 2011 and parts of 2012.
- **Current acc't (CA) dynamics are *the* major driver of Asia's FX reserve growth.** Unlike most of EM where capital flows have been the *dominant* driver, in EM Asia, cumulative net current account inflows account for over 80% of FX reserve accumulation in 2006-11. We expect Asia's CA balances to, on average, be ~47% *smaller* in 2012-13F than in 2010-11 for surplus countries, ID is already shifting from surplus to a more persistent CA deficit, joining the ranks of IN & LK.
- **While shrinking, most CA surpluses unlikely to disappear for a while.** (1) Some CA deterioration is "cyclical", and may partly reverse assuming global growth recovery. (2) Asia may cap export weakness by increasing market share, (3) Asia's Terms of Trade (for most) is strongly inversely correlated with crude oil prices and our commodity analysts' more benign LT oil outlook provides a buffer; and (4) in China's case, forces slowing investment on the back of previous over-investment may be initially more powerful than forces driving down domestic savings, even with supportive policies, thus keeping the CA surplus intact for a while.
- **But clearly, CA deterioration for many is a structural trend.** A revival of investment in some ASEAN countries will likely lead to shrinking surpluses (MY, TH) and persistent deficits (ID), while China's demographic shift, structural policies leading to cost normalization (in a less dramatic way, also in SG) will do the same.
- **Asia's net FDI trends are also dramatically shifting in nature and geographies.** Net FDI inflows in CN and SG have likely peaked in 2011 and will likely be on a secular decline as ODI grows and as FDI shifts from manufacturing to less capital-intensive services. However, FDI decline in India is more "policy-induced" than structural. Meanwhile, most of ASEAN (ex-Sing) is seeing a net FDI *resurgence*.
- **Assuming volatile cap flows, Asia to see divergent FX reserve tendencies.** With Asia's basic balance (CA + net FDI) deteriorating by ~35% in 2012-13F, a more cautious outlook on capital flows suggest high risk to continued reserve deterioration unless the currency is allowed to adjust more – we see the biggest downward pressure on IN, ID, LK, and, to a lesser extent, KR & TH, but external flows still lean toward reserve accumulation in CN, MY, PH, SG, TW & VN.
- **Market & policy implications: FX, liquidity conditions and risk premiums.** Declining FX reserves reduce perception of Asia FX "undervaluation" & induce perceived "overvaluation" in some, though this needs to be balanced by expectation of CB intervention. A sharp slowdown/contraction in CB balance sheets increases monetary policy flexibility. With varying FX reserve adequacy, this would also impact country risk premiums differently.

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See Appendix A-1 for Analyst Certification, Important Disclosures and non-US research analyst disclosures.

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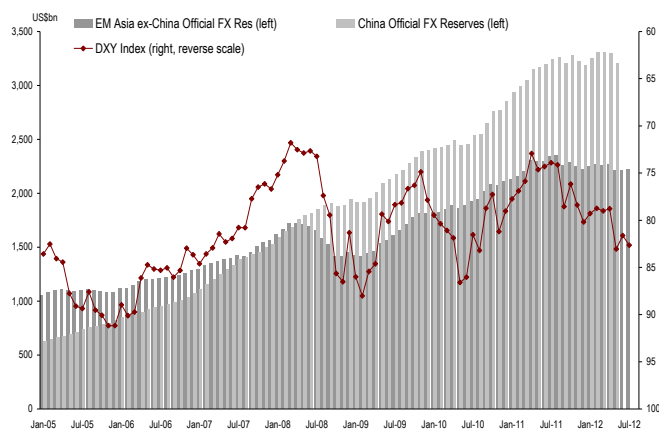
Are the Days of Asia's Rising Foreign Reserves Over?

Asia's FX reserves have tapered off over the last year

EM Asia's foreign reserves have largely plateaued at below peak levels over the last year— with divergence between sharp declines in CA deficit countries, in contrast to still rising trend in HK and PH

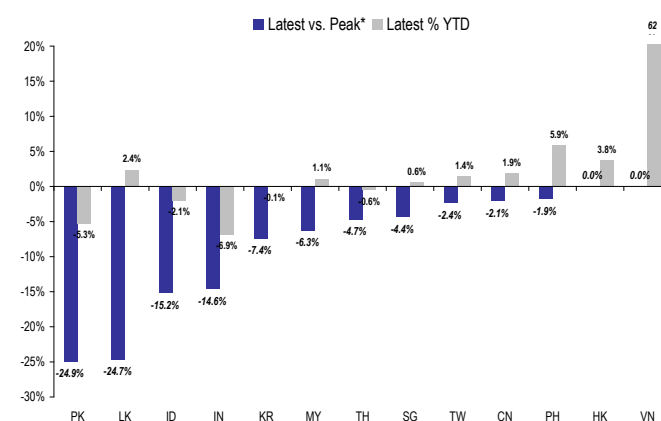
Recent data on official FX reserve holdings of Asian central banks indicate that FX reserves may be peaking for most. China's official FX reserves peaked in February at US\$3.3tr and dipped US\$70bn by June, while gross foreign exchange reserves (and net forward book) for Central Banks in EM Asia ex-China peaked earlier in Aug 2011, and have declined since, led by the current account (CA) deficit countries of the Indian sub-continent and Indonesia. The striking exceptions to this are Vietnam, Hong Kong and, to a lesser extent, the Philippines, the latter still down slightly from the peak but gross reserves (and forward book) are rising sharply in recent months. *Does this spell the end of the Asia FX appreciation story?*

Figure 1. Movement in foreign exchange reserves correlate well with DXY (reverse scale)



Source: Bloomberg, CEIC, and Citi Research

Figure 2. Change in total foreign reserves (including the net forward book) vis-à-vis peak*



Source: various central websites, CEIC, and Citi Research

Note: *We look at the peak reserves since 2011, which is the period of peak foreign exchange reserves for most all except Vietnam

This is likely partly due to revaluation effect as DXY has been on a rising trend since August 2011

Stalling/declining reserve holdings in USD-terms can be partly explained by revaluation effects. Official reserves are strongly inversely correlated to the DXY index ($\rho \approx -0.60$; see Figure 1) given that a significant proportion of reserves are denominated in non-USD assets. Latest IMF COFER data indicate the predominant currency choice has been the euro, and share of non-USD denominated assets has generally been rising. Thus, assuming this relationship holds, part of the calculus that comes into play when arguing if Asia's foreign exchange reserves have peaked may be a function of our view on how portfolio reserve assets perform in USD terms. From a more narrow view on currencies, we view DXY rebounding in 6-12 months, although over the long-term we forecast DXY to decline back to the low 80s. Thus, assuming historical correlations hold, our medium-term outlook for further foreign reserve asset accumulation in USD terms does not look too favorable.

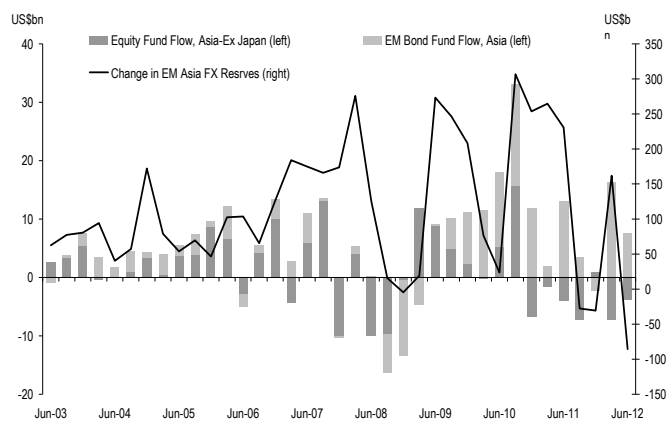
... and related to rising DXY, heightened risk aversion prompting capital outflows

DXY movements also correlate with risk appetite/risk assets, and capital outflows on heightened (eurozone-led) risk aversion, plus the increased use of RMB for trade settlement are other drivers of stalling to declining reserves. EPFR data show aggregate gross equity and bond flows posted net outflows in 2H 2011 and 2Q 2012, while exchange-rate adjusted cross-border claims of BIS reporting banks to Asia, saw net reduction in 'locational' bank claims since mid 2011. Moreover, the rapid increase in the usage of RMB for trade settlement – rising over US\$6bn over the last year – has also likely contributed, albeit marginally, to the decelerating forces for China's reserve accumulation.

Asian central banks may have also been more passive about FX intervention during the post LTRO driven risk rally in late 2011-early 2012, and thus, let reserves plateau

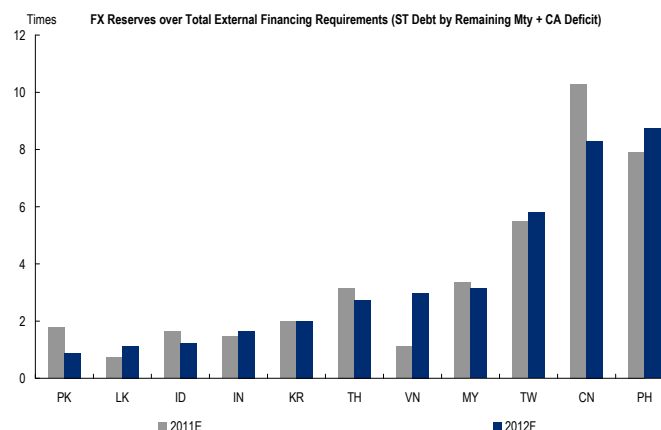
Or maybe, Asian Central Banks have had enough and were more passive in their attitude towards exchange rate appreciation – we saw this during the post-LTRO risk rally in early 2012. Amid inflationary risks in many countries, prolonged low real rates fueling credit growth, Asian Central Banks may view the marginal benefit of reserve accumulation – e.g. for precautionary purposes, which is already excessive in many – outweighing the marginal costs.¹ Thus, during recent periods of capital inflows, for example, the post-LTRO rally in early 2012, Asian Central Banks were notably more passive in letting the currency appreciate (though this came after currencies sold off in late 2011 as macro data were holding up).

Figure 3. Portfolio Equity and Bond Flows (Asia Funds) vs. Change in Gross FX Reserves



Source: CEIC, EPFR, and Citi Research

Figure 4. Most of Emerging Asia have more than enough foreign exchange reserves for 'precautionary' purposes



Source: Moody's, and Citi Research

Current account “cushion” gets thinner...

We think the key driver to foreign asset accumulation in Asia – particularly East Asia – is how the CA surplus evolves

Despite the recent outsized influence of capital flows, we think the most important factor driving Asia's FX reserve accumulation has historically been **current account (CA) flows**. For most of the emerging markets, capital inflows are the dominant drivers of external surpluses and have more than covered CA financing needs, leading to foreign exchange reserve accumulation (see Figure 5). However, East Asia is different -- cumulative CA inflows account for about 82% of foreign exchange reserve accumulation from in 2006-2011, we think partly in pursuit of a precautionary reserves build-up as well as “mercantilist” motives to keep currency ‘undervalued’. The residual of Asia's reserve accumulation can be *more than fully* covered by aggregate net FDI, suggesting that East Asia, in aggregate, has been an exporter short-term capital/portfolio flows, largely to developed markets.

While we expect it to narrow more broadly in 2012F-2013F...

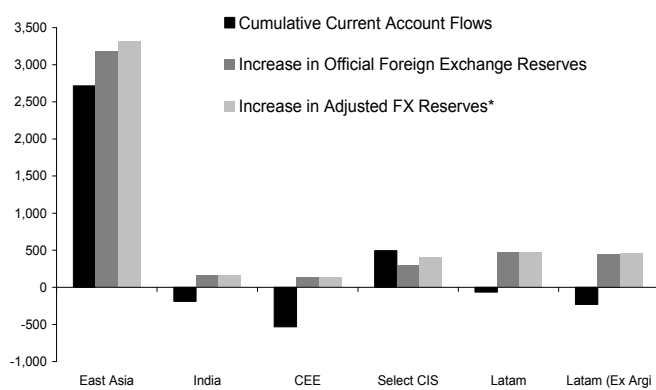
With that in mind, amid an uncertain outlook for capital flows, our prognosis for a sufficient CA buffer to bolster reserve accumulation this year does **not look great**. We expect aggregate CA surplus in Asia to shrink in 2012-13F on the back of slower export growth relative to domestic demand growth. In our discussions below, we will focus more on the *goods trade balance* which, with the exception of Hong Kong and Philippines, tend to dominate the current account flows.

¹ For a sample discussion of the risks involved with excessive reserve accumulation, see Andrew Filardo & James Yetman. “The expansion of central bank balance sheets in emerging Asia: what are the risks?”. BIS Quarterly Review, June 2012.

...we see it as partly cyclical, and will reverse when global growth rebounds; China (and a few others) are different – For China, we expect the CA surplus will continue to shrink gradually and may stabilize at a lower level as a mix of policy/macro initiatives to rebalance growth towards private consumption could would reduce net exports

Our medium-to-longer term CA outlook is mixed, though we still expect the CA to remain in surplus for most (except those already incurring recent deficits). We forecast some of the CA deterioration to be partly temporary with exports gradually rebounding by 2013F as global growth is forecast to pick up. For countries where contribution of exports is disproportionately large relative to the domestic economy – Singapore, Taiwan, Malaysia, and Thailand— the global growth rebound driving exports will likely more than offset domestic developments in the near-term, leading to a *CA surplus rebound* by 2013F but, in Malaysia's and Thailand's case, any rebound may be short-lived on more persistent structural factors driving an investment revival. Meanwhile, China (and a few others) has a proportionally larger domestic economy relative to exports, which implies that domestic macro/policy developments will matter more in the direction of its CA balance. We expect China's CA surplus to decline gradually, assuming the government pursues policy reforms and undergoes demographic changes leading to both cost normalization and lower household savings, helping gradually narrow the CA balance.²

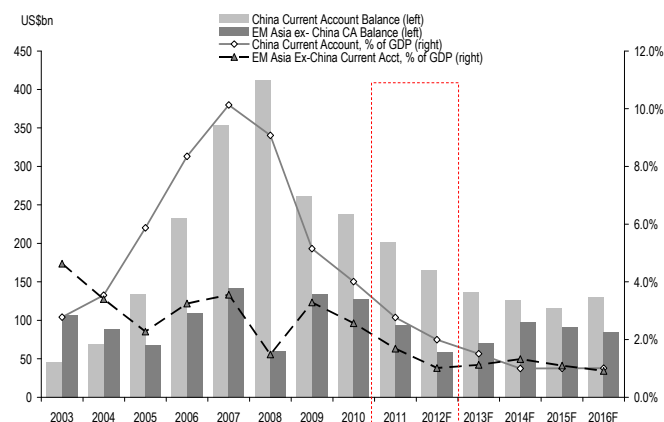
Figure 5. Comparing the Cumulative CA and FX Reserve Flows, 2006-2011



Source: CEIC, and Citi Research

Note: *We adjust with the net forward book and sovereign wealth fund balances not counted in reserves

Figure 6. History and Forecast for Current Account Balances in Asia, 2003-2016F



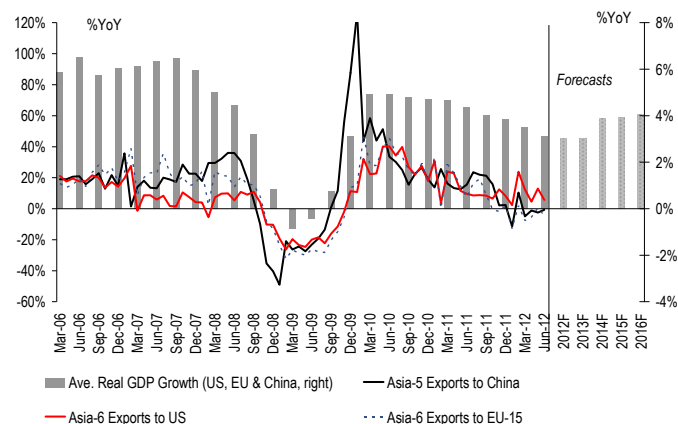
Source: IMF, and Citi Research

As global growth is only expected to rebound by half the rate of the pre-crisis period, how CA evolves will be a function of how Asia can continue to gain export market share by productivity improvements and innovation

As global growth is expected to rebound at a little over half the growth rate during the pre-crisis period of 2003-2007, a key issue to assess future export growth path will be the extent to which EM Asia can continue to gain export market share via productivity improvements and innovation. Asia's track record over the last few decades in this regard has been impressive --not only have low and middle-income countries gained market share from a low base amid competitive manufacturing costs and reforms toward trade liberalization -- particularly pronounced in China -- but even the wealthier and more industrialized countries like Korea and Singapore achieved impressive gains partly by moving to higher value exports. In general, China's outsized export market share gains in over a decade mask the significant shift in downstream manufacturing activities from the more developed East Asian countries --Japan, HK, Korea, Taiwan and Singapore -- to the mainland (initially, at the expense of ASEAN, but we think that is now changing for select countries).

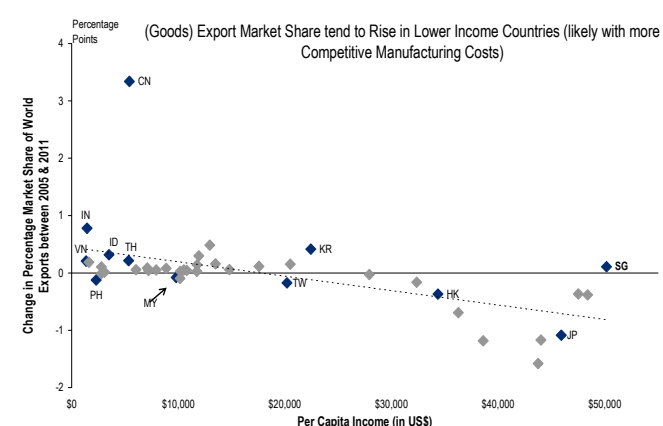
² See [Citi GPS: CHINA & EMERGING MARKETS - China is about to rebalance. How will EM be affected?](#)

Figure 7. Export Growth Slowdown likely Temporary as Global Growth is forecast to Rebound in 2013 onwards (though weaker than history)



Source: CEIC, and Citi Research

Figure 8. Cumulative Gains in World Export Market Share Correlate Negatively with per Capita Income

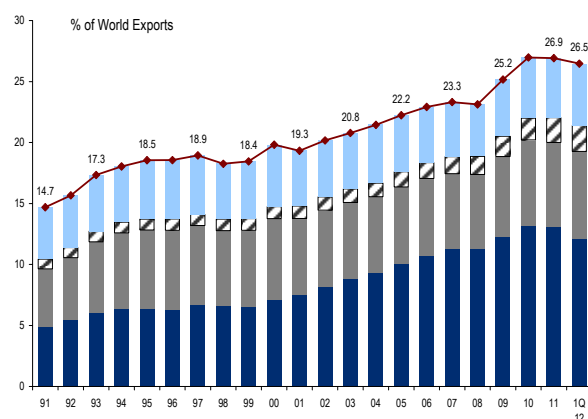


Source: IMF Direction of Trade Statistics

We think elevated intra-regional trade and rising financial integration could enhance efficiency gains in goods manufacturing across Asia

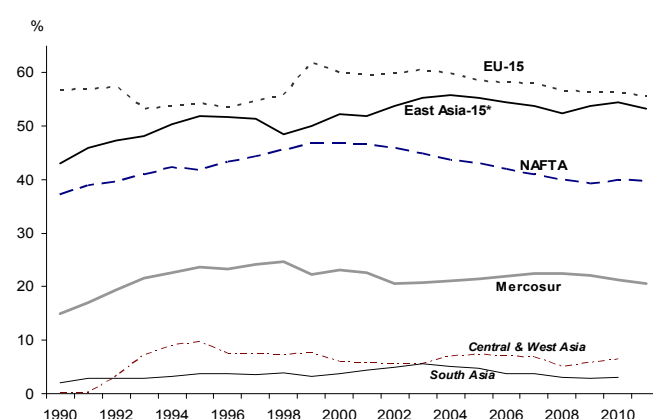
Has East Asia's export market share peaked? We don't think so. Over the last year, EM Asia's total export market share gains have stopped growing, and more recently (1Q12) dipped slightly led by the declining market share in Greater China but partly offset by still rising export market share in ASEAN and India sub-continent. We think this is partly a function of the rise in commodity prices that has favored resource exporters, supply disruptions from both the Japan earthquake and Thai floods, major technological production displacement (e.g. the rapid rise of tablet and smart-phones at the expense of PC/laptop and traditional mobile phone devices) and some eroding cost competitiveness amid rising factor costs and the impact of cumulative REER (averaging about 6% since 2007 for East Asia) – China may have suffered relatively more here over the last few years. Overall, we think there is still room for productivity improvements with the help of already very high intra-Asia trade/ production integration and rising financial integration. One development that provides significant potential is the opening up of Myanmar-- Myanmar's exports to GDP ratio is *only* 12% of GDP in FY2010/11 vs. an average ratio of 55% of GDP among its Greater Mekong delta peers.

Figure 9. Emerging Asia's Share of World Exports (%), 1991 to 1Q 2012



Source: IMF Direction of Trade Statistics, and Citi Research

Figure 10. Intra-Regional Trade Shares Are High in East Asia

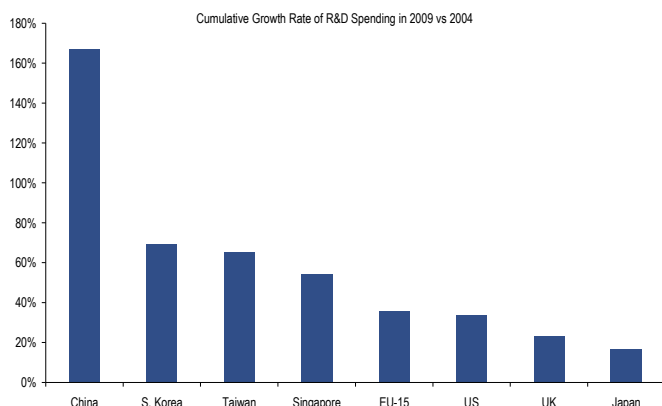


Source: ADB, and IMF Direction of Trade Statistics

Prospects for technological innovation and rising higher-value exports look strong

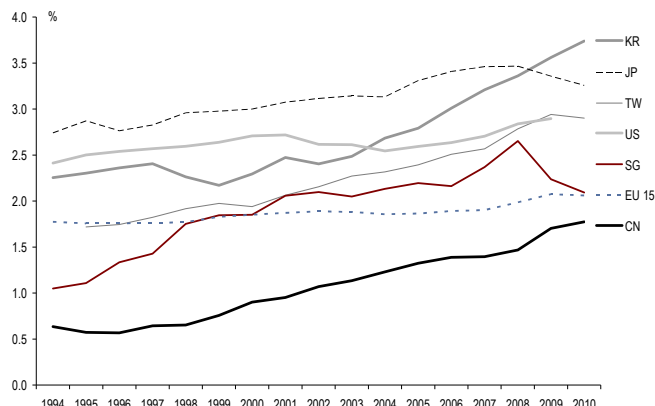
Emerging Asia's prospects for technological innovation and moving towards higher-value exports is still promising.³ Over the last decade, EM Asia has seen the most rapid growth in R&D spending globally, led by China, and more industrialized countries like Korea, Taiwan and Singapore, already yielding the region the most rapid rise in share of global patents. Among the OECD countries, Korea is already the second-most R&D intensive economy (after Finland). Even other lower and middle-income countries like India, Thailand and Malaysia have also reportedly seen faster average annual R&D spending growth than the US, EU and Japan in recent history, and this trend is expected to continue.⁴

Figure 11. Cumulative Growth in R&D Spending (2009 vs. 2004)



Source: OECD, and Science and Technology Indicators

Figure 12. Gross Domestic Expenditures in R&D, % of GDP



Source: OECD, and Science and Technology Indicators

Despite Asia's productivity challenges, we think other region's challenges look more daunting

Asia still has many challenges to productivity improvements, including political factors undermining the investment regulatory climate, skills gap, serious infrastructure bottlenecks and dramatic demographic shifts, particularly in China. Nonetheless, ***given serious challenges also found elsewhere***, we believe EM Asia is still the best positioned to make export share gains vis-à-vis other region, at least in the coming few years, as it has done so in the last 30 yrs though gains could slow initially easier market share pick-up may be difficult to sustain.

The end of the long period of petroleum price increases may now be over – generally supportive of Asia's terms of trade

Another factor that could help cushion the region's CA surpluses is our more benign longer term outlook on some key commodity prices, particularly oil. China's investment-oriented growth model has negatively impacted Asia's terms of trade (ToT) via the rise in commodity prices, particularly base energy and metals.⁵ While there is some variation across Asia – Malaysia and Indonesia are net energy exporters – East Asia's terms of trade is strongly *negatively* correlated with crude oil prices ($\rho \approx -0.86$ for average ToT indices of China, Hong Kong, Korea, Taiwan and Thailand; see Figure 13). Going forward, our commodity analysts now believe the ***long period of petroleum price increases is coming to an end***, citing escalating upstream capital spending, surge of discoveries and new production, especially in North America. Oil prices are expected to be in the \$80-90/barrel range over the

³ An earlier discussion of Asia's Innovation catch up can be found in [Asia Macro View - Ten Asia Themes for the New Decade](#) (2 Feb 2010).

⁴ See "2012 Global R&D Funding Forecast: The Asian Machine." R&D Magazine (Dec 2011).

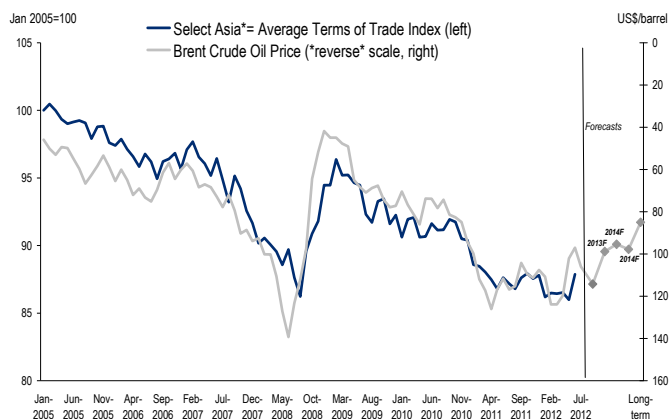
⁵ For a discussion of China's influence over global commodity markets, see [Citi GPS: CHINA & EMERGING MARKETS - China is about to rebalance. How will EM be affected?](#) An IMF paper (A. Ahuja et al. "An End to China's Imbalances?"), finds that China's "terms of trade decline contributed between one-fifth and two-fifths of the decline in the current account surplus" between 2007-2011.

longer term, and even expecting it “*could fall well below these levels*”, which would be a net positive support of most of Asia’s current account balances.⁶

China’s investment-to-GDP ratio is expected to gradually fall by more than a potential decline in domestic savings, keeping the CA surplus intact for awhile longer

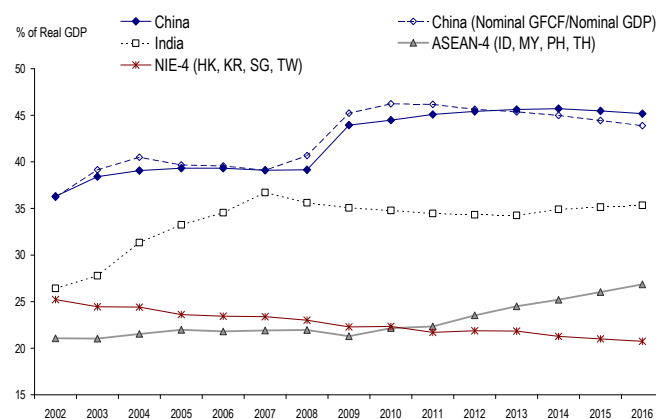
Investment patterns will also be important drivers of how current accounts evolve, especially in China where investment growth is slowing. An IMF study (see footnote 5) estimated that China’s step-up in investment acceleration post-GFC accounted for a quarter to a third of China’s CA decline in 2007 to 2011. However, since then, China’s investment growth has decelerated, and we expect this trend to continue *in future years* to correct for the previous over-investment, which will gradually bringing down investment-to-GDP ratio, and still likely by more than the potential decline in domestic savings (despite government policies aimed at boosting consumption), thus keeping the CA surplus intact for awhile.

Figure 13. Select Asia’s Terms of Trade* vs. Brent Crude Prices & Forecasts



Source: CEIC, and Citi Research

Figure 14. Real Gross Fixed Capital Formation (% of GDP)



Source: CEIC, and Citi Research

Investment pick-up in Southeast Asia could cap CA improvements – more so in Indonesia than Philippines

Investment growth is picking up in other parts of Asia, particularly some more domestic-driven economies of Southeast Asia.⁷ We’ve earlier mentioned how this will likely narrow the CA surpluses in Malaysia and Thailand in future years, and keep India’s CA in persistent deficit. We see this investment revival would be strong enough to keep CA in deficit for a while in Indonesia, but Philippines is a bit different. Philippines’ structural disadvantages in manufacturing (but lingering advantages in services) remain high, and thus, investment revival will likely be more subdued and less capital intensive than Indonesia to help limit the extent to which the CA surplus deteriorates.

⁶ For details, see Edward Morse et al. [Zeroing In On Long-Term Oil Prices](#) (4 June 2012).

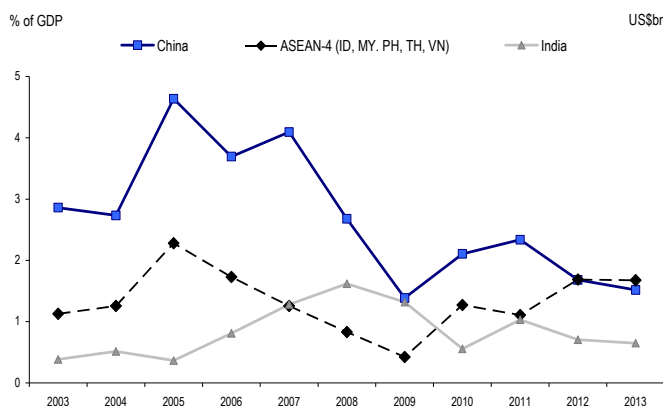
⁷ We see four major factors, in varying degrees, driving this investment revival– (1) China’s rising cost pressures is pushing investments related to manufacturing relocation to lower labor cost countries; (2) years of under-investment yielding capacity constraints have made returns to investments increasingly attractive; (3) Improved macro policy management yielding years of economic stability (notably in Indonesia and Philippines) has boosted investor confidence and lowered country risk premiums; (4) improved fiscal, bank and corporate balance sheet, plus globally low interest rates, provides increasingly available funding at declining costs.

Net FDI flows into Asia: Shifting nature and geographies

After rebounding sharply last year, net FDI flows into Asia should fall in aggregate, but we are likely to see a redistribution with a secular rise of net FDI flows into Southeast Asia

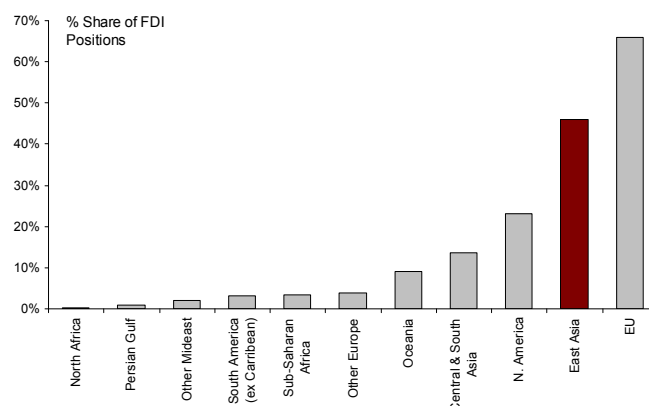
After rebounding sharply last year, net FDI flows into Asia likely to decline this year amid rising global uncertainties. Last year's net FDI jump was led by the financial centers of HK/Singapore and mainland China, with aggregate levels in the region exceeding pre-GFC levels. However, net FDI flows into Asia are expected to fall this year, led by the decline in China, Singapore and India (amid significant regulatory setbacks), though in China and Singapore's case, the decline in net FDI this year is also largely a function of increases in *outward direct investment* (ODI), a portion of which will likely get recycled back into parts of Asia where intra-Asia regional FDI shares are high on the back of significant production linkages. Intra-regional FDI tends to flow from more industrialized countries (HK, JP, KR, SG, TW, and since 2008, increasingly China) to less developed ones. We are particularly optimistic about parts of Southeast Asia where we are already seeing a sharply rising trend of net FDI inflows. For example, the share of Japan's annual ODI flows going to ASEAN 6 (ID, MY, PH, SG, TH, VN) averaged at 15% of total Japan ODI in 2010-mid-2012 versus averaging only 9% in FY2002- 2007.

Figure 15. Net FDI flows are Shifting to Southeast Asia



Source: CEIC, and Citi Research

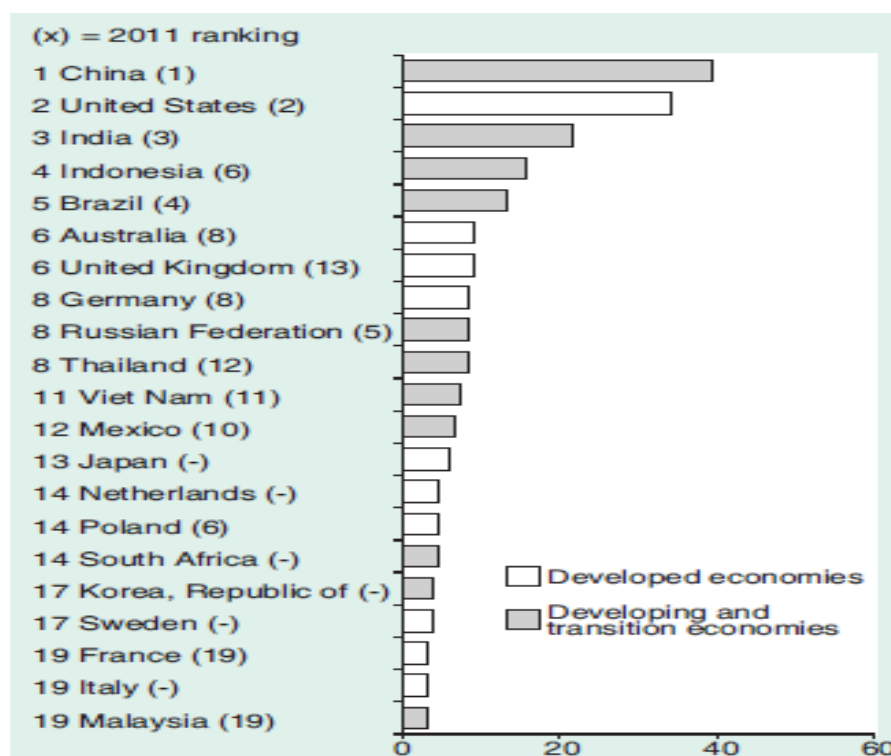
Figure 16. Intra-Asia FDI Flows Show Relatively high Degree of Regional Integration vis-à-vis other regions



Source: IMF Coordinated Direct Investment Survey

We think China and Southeast Asia will likely still remain a growing destination of FDI, but on a net basis, we think this already peaked in China last year. The latest UNCTAD Investment survey of 174 respondents from the top 5,000 TNCs worldwide find Developing Asia still scoring highly, with 65% of respondents rating East/Southeast Asia as “very” or “extremely” important and 43% giving the same rating to South Asia. While China still remains a top destination for FDI in the latest *World Investment Prospects Survey* (WIPS) by the UN, we also saw a notable ranking jump by some Southeast Asian countries like Indonesia and Thailand. While we think gross FDI inflows into China can continue to grow, we think the pattern of FDI flows into China is also changing, particularly with the rise in FDI flows into services sector which has now surpassed FDI flows into the manufacturing sector and can be further boosted by our expectation of more service sector deregulation in the future. As services-related FDI flows are likely less capital intensive than manufacturing sector, and China is increasingly investing overseas, we think net FDI flows into China already peaked in 2011.

Figure 17. TNC's top prospective host economies for 2012-2014 (% of Respondents selecting economy as a top FDI destination)



Source: UNCTAD Survey (World Investment Report 2012), based on 174 validated company responses

Summing up: How Foreign Reserve May Evolve

Assuming volatile capital flows, we think downward pressure for FX reserves remains high, especially in India, Indonesia, Sri Lanka, and possibly Korea and Thailand; Unless there is a “deliberate policy”, we think pressure on reserves still leans toward a tendency for “accumulation” in China, Malaysia, Philippines, Singapore, Taiwan and Vietnam, though at a much slower pace than previously – and in MY, SG and TW, adept ability to export capital remains high

Assuming risk aversion remains elevated and exchange rates “managed”, we think the pressure for FX reserves to decline remains high across most countries as counter-acting basic balance surpluses shrink an average of 40% for all the surplus countries (ex Vietnam), while basic balance deficits stay wide (or widen) for the deficit countries. We see the biggest downward pressure on India, Indonesia, Sri Lanka and to a lesser extent, Korea and Thailand. However, barring significant policy moves to encourage capital outflows, we think the bias of external flows is for further FX reserve accumulation in China, Malaysia, Philippines, Singapore, Taiwan and Vietnam. We combine our outlook to how the current account and net FDI flows evolve in 2012-13F, ignoring FX adjustment and assuming that non-FDI related capital flows will remain volatile and tend to go against previous flows (i.e. if there were significant non-FDI related capital *inflows* in 2010-11, then the risk is for *less inflows/future outflows* in 2012-13F, and if there were significant non-FDI related capital *outflows* in 2010-11, the bias may be for less outflows/more inflows in 2012-13F). Results are presented on Figure 18. We find that:

- **Pressure on further reserve declines remains high in India, Indonesia, Sri Lanka.** The persistent basic balance deficiency implied in our forecasts, largely on the sizeable current account deficit amid coming period of volatile capital flows, will likely lean towards FX reserve de-accumulation, holding all else equal. Risks look particularly more serious in India and Sri Lanka given that non-related FDI inflows accounted for a significant support to FX reserves in previous years, and thus could be vulnerable to unwinds. However, both also have significant capital account restrictions that can be eased further, and Sri Lanka is pursuing extra IMF funding.

- **Korea and Thailand's external flows do not have as favorable basic balance dynamics for FX reserve accumulation as others and we think will depend more on non-related capital inflows evolve.** While we forecast Korea and Thailand to achieve a sustained, albeit narrowing, basic balance surplus, significant support from non-FDI related capital flows in recent years vis-à-vis their narrow projected basic balance surplus could make them susceptible to reserve decline during volatile period of capital outflows. However, one caveat to this is the increasingly more structural demand for "safe haven" assets benefitting Korea fixed income instruments.⁸
- **Despite risk to future capital flows, we think the bias for FX reserve trends in China, Malaysia, Philippines, Singapore and Vietnam leans towards FX reserve accumulation.** Not only are all expected to have relatively sizeable *positive* basic balance flows in 2012-13F, though *shrinking for all except Vietnam*, but most of these countries (except China and Vietnam) have been historically "exporting" non-FDI related capital, especially in Malaysia and Singapore. We think the key uncertainty to the reserve trends in these countries is: 1) to what extent are sizeable capital outflows in Malaysia or Singapore "structural" and persistent, given limited investible opportunities onshore and the desire to prevent FX appreciation; and, 2) significant capital controls in China may have artificially suppressed natural tendencies of non-FDI related capital to flow in more than flow out.

Figure 18. Summing Up – Components of Balance of Payments* in Emerging Asia, 2008-2011 and 2012-13F

	Current Account (CA)			Net FDI			Basic Balance: BB = CA+ Net FDI			Change in Reserves (and Net Forward Book)						"BB" in 2012-13F	
	2008-09	2010-11	2012-13F	2008-09	2010-11	2012-13F	2008-09	2010-11	2012-13F	2008-09	% from BB	% from ST K Flows	2010-11	% from BB	% from ST K Flows	as % Reserves	Expected Trend
CN	673	440	302	192	295	277	865	735	579	871	99%	1%	782	94%	6%	18%	Rising
IN	-66	-124	-101	38	28	27	-28	-96	-74	-54	52%	48%	6	-1540%	1640%	-28%	Declining
ID	11	7	-35	6	22	25	17	29	-11	9	193%	-93%	43	68%	32%	-10%	Declining
KR	36	92	46	-32	-38	-31	4	54	15	0	-3007%	3107%	55	98%	2%	5%	Flatish
MY	71	130	42	-14	-8	12	57	123	54	-18	-320%	420%	44	277%	-177%	40%	Rising
PH	13	29	15	3	2	4	16	31	18	11	140%	-40%	22	145%	-45%	27%	Rising
SG	57	170	83	12	67	25	69	236	108	18	379%	-279%	112	211%	-111%	45%	Rising
LK	-4	-6	-7	1	1.3	2	-3	-5	-4	2	-149%	249%	1	-521%	621%	-72%	Declining
TW	70	81	84	-8	-24	-20	63	58	65	78	80%	20%	37	154%	-54%	17%	Rising
TH	24	25	5	5	7	13	29	32	17	47	62%	38%	47	67%	33%	10%	Flatish
VN	-18	-5	0	16	14	15	-2	9	15	-7	24%	76%	-3	-352%	452%	106%	Rising

Source: Citi Research, CEIC

Note: We look at the cumulative sum of current account and net FDI flows, actual and our forecast, versus cumulative change in gross reserves and net forward book. The "signs" on the contribution of both basic balance and short term capital flows to the historic reserve and forward book changes should be interpreted carefully with the direction of the reserve change. For example, the negative sign on the contribution from short-term capital flows in 2010-2011 for MY, PH, SG and TW significant short term capital outflow, while in VN, the positive" sign of contribution of short-term capital flow in 2010-11 when change in reserves was negative also imply short-term capital outflow.

Implications of Near-Term Diminishing and Medium-Term Divergent FX Reserves

A correction to a build-up of excessive reserves in East Asia should be a long-term positive trend for reducing vulnerabilities via global rebalancing, but will have various policy and market implications:

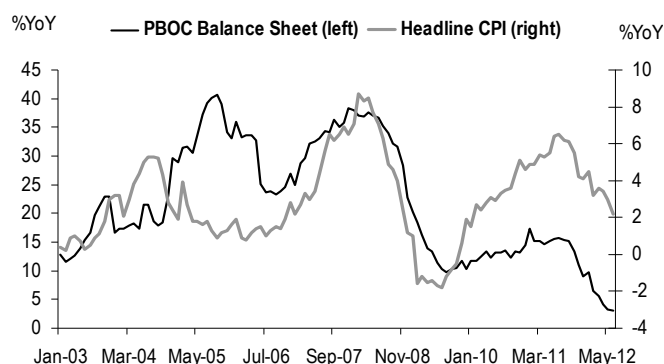
- **Would reduce perception about FX undervaluation or even argue for overvaluation in some, though need to be complimented by expectation of Central Bank intervention.** The significant slowdown and some persistent declining pressure on FX reserves that we are expecting across the Asia region

⁸ In recent months, we note the sizeable increase of net foreign buying of KRW-denominated bonds by Switzerland (+83%ytd) and Norway in July (coming from almost nothing, it's up 1,208% in July ytd).

should weigh against Asia FX sentiment, alongside Central Bank incentive to keep the currency weak in order to support growth. Based on our analysis above, in times of more volatile capital flow, CNY, MYR, PHP, SGD and TWD should have relatively more resilient external flows than others, creating a more entrenched view of FX “undervaluation”, *though less perceived to be undervalued than before*, all else equal, but we would argue that in the case of SGD, TWD and historically MYR, where economy has been more vulnerable and tied to global demand, the incentive to prevent FX trade-weighted outperformance is *much higher* than either CNY or PHP. If this DXY weakness strength fueling capital outflows continue, KRW and THB may be biased to weaken a bit more, while barring other policy adjustment to close the external gap, INR, IDR and LKR may be “overvalued” and will need to weaken to balance the external flows.

- **Could add to monetary easing flexibility in some.** The sharp slowdown in growth of Central Bank balance sheets as foreign asset accumulation slows/declines could help increase monetary policy flexibility, holding all else equal.⁹ While the impact of CB balance sheet on inflation is hard to gauge given long and variable lags, effectiveness in sterilizing liquidity, and various other counteracting policy measures, there has been a positive correlation of the in a number of countries (see Figure 19 and Figure 20) over the last five years, with almost coincident movement in China, but very weak correlation with HK, Indonesia, Korea and Taiwan. *Assuming* there is some “causation” at play here, in period of more volatile capital outflows coinciding with deterioration in the basic balance flows would lead to tightening of financial conditions, giving room for offsetting loosening policies, either via domestic liquidity easing, rate cuts, or FX weakness. Based on this, we see this monetary easing flexibility growing in China, Malaysia, Philippines and Thailand, though among these four, Malaysia is unlikely to ease monetary policy this year given resilient domestic-driven growth and proactive fiscal policy.

Figure 19. China – Central Bank Total Assets (%YoY) vs. Inflation (%YoY)



Source: CEIC, IMF IFS, and Citi Research

Figure 20. Asia – Central Bank Total Assets (%YoY) and Correlation with Inflation

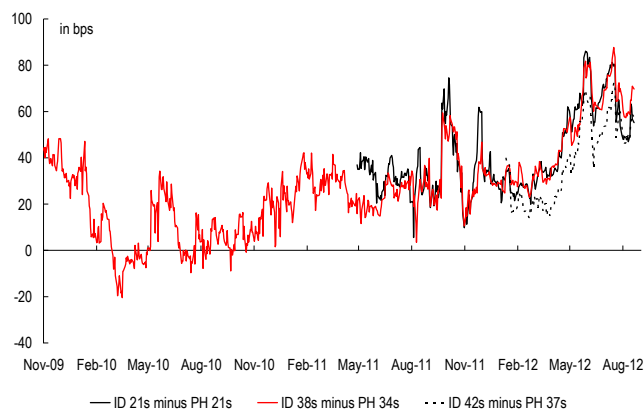
	Central Bank Total Assets (in US\$, %YoY)				Correlation with Headline Inflation	
	12 M ago	6M ago	3M Ago	Latest	Inflation	Lag (Months)
CN	15.6	9.0	5.6	3.0	51%	0 lag
HK	11.9	9.3	6.1	6.2	<i>weak</i>	<i>long</i>
IN	20.2	7.2	5.4	0.3	41%	3-4 Mos
ID	44.0	15.1	7.7	-8.1	<i>weak</i>	<i>long</i>
KR	5.7	4.0	7.6	3.0	<i>weak</i>	<i>long</i>
MY	52.3	17.1	-3.6	-7.9	65%	6-8 Mos.
PH	34.9	19.8	14.2	8.7	65%	6-8 Mos.
SG	20.0	7.1	2.0	-2.3	78%	5-6 Mos.
TH	23.7	3.1	-0.7	-3.9	40%	4 Mos.
TW	4.2	-0.9	-2.2	-2.7	<i>weak</i>	<i>long</i>

Source: CEIC, IMF, and Citi Research

⁹ In recent years, the concern in Asia had been the opposite – rapid CB balance sheet expansion raising risks of inflation and financial instability. See A. Filardo and J. Yetman. “The expansion of central bank balance sheets in emerging Asia: what are the risks?” *BIS Quarterly Review*, June 2012.

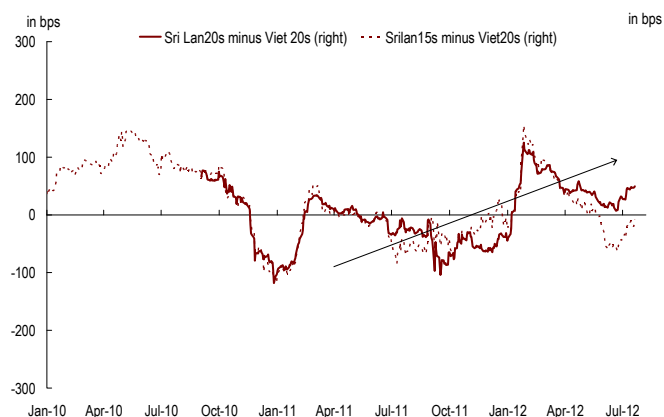
- **Would have varying impact on country risk premiums.** Varying trends in FX reserve accumulation or de-accumulation will have varying impact on country risk premiums especially as perceived FX reserve adequacy varies substantially and, related to this, the incentive to issue offshore debt to compensate for its external funding gap would also provide another technical factor for under-performance. We compare some reserve coverage ratios in Figure 4 which would suggest that reserve coverage in Indonesia is weaker than others, and thus, we could see the bias for Indonesia debt to underperform over time, all else equal (see Figure 21). Similarly, this would argue that, assuming this fragile risk sentiment persists for longer, Sri Lanka should underperform Vietnam over time (though that hasn't yet been evident in how the dollar bond spreads are performing (see Figure 22).

Figure 21. We think the risk premium of Indonesia could rise over time versus less externally vulnerable countries...



Source: Bloomberg

Figure 22. and if global risk aversion remains high, Sri Lanka should underperform Vietnam over time



Source: Bloomberg

Appendix: Foreign Exchange Reserves & Net Forward Positions¹⁰

Figure 1A. Hong Kong

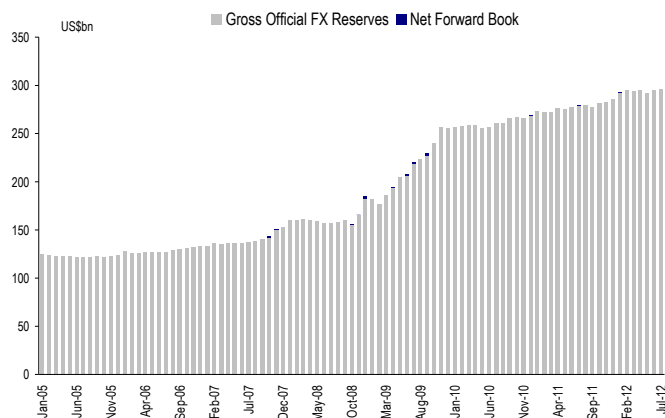


Figure 2A. India

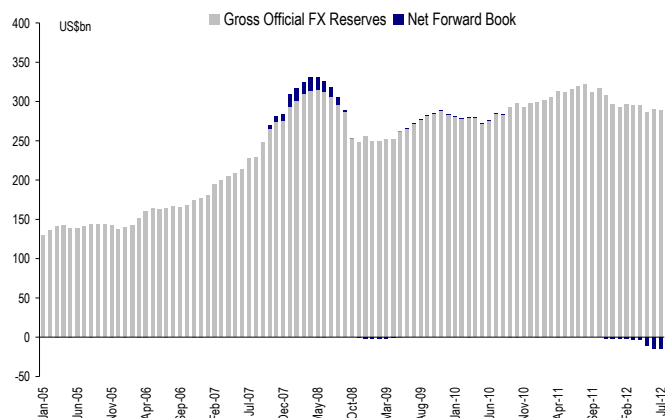


Figure 3A. Indonesia

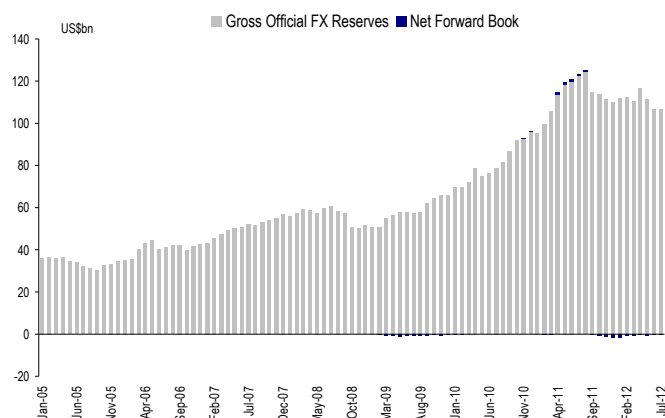


Figure 4A. Korea

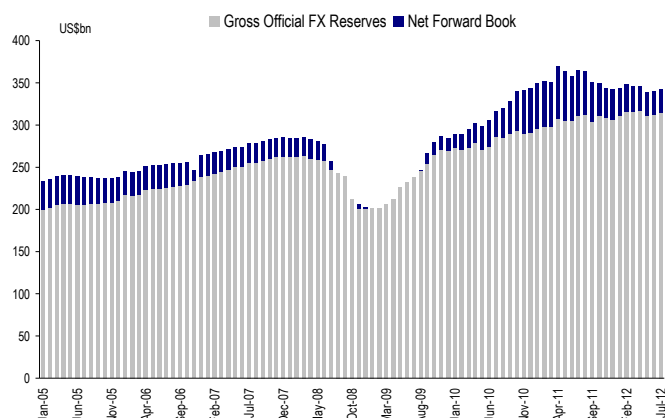


Figure 5A. Malaysia

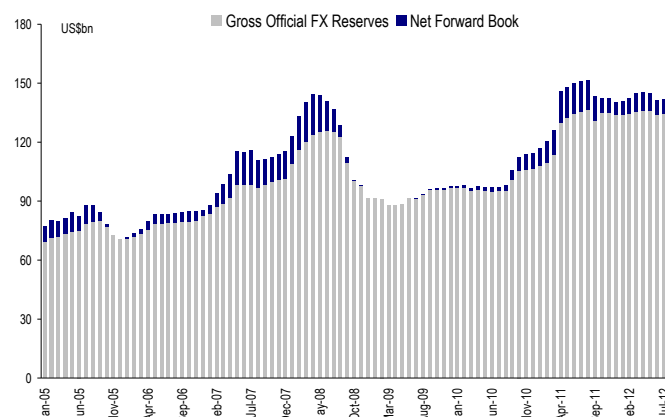
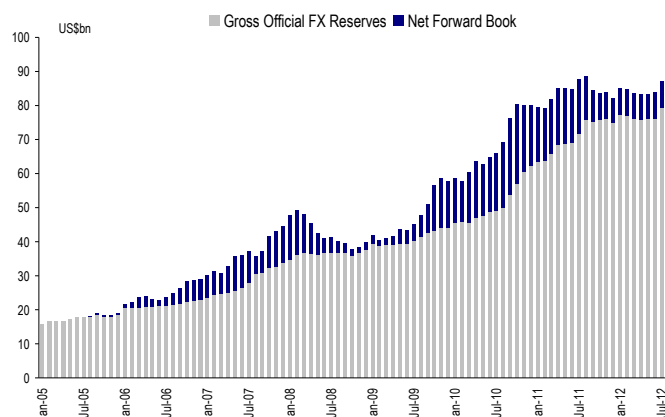


Figure 6A. Philippines



Source: CEIC, IMF, Various central bank's International Reserves and Foreign Currency Liquidity template

Note: *Data on net forward positions are not available.

¹⁰ Note: Due to reporting lags on net forward positions, especially for July 2012 (May-June data also unavailable for Pakistan), we assume that it is unchanged from the latest available figure. The chart on China is not included as it is already presented in Figure 1, data on net forward positions of the PBOC are not available.

Figure 7A. Pakistan

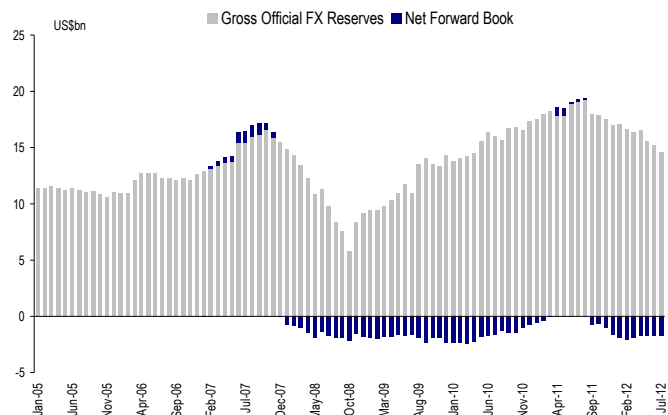


Figure 8A. Sri Lanka*

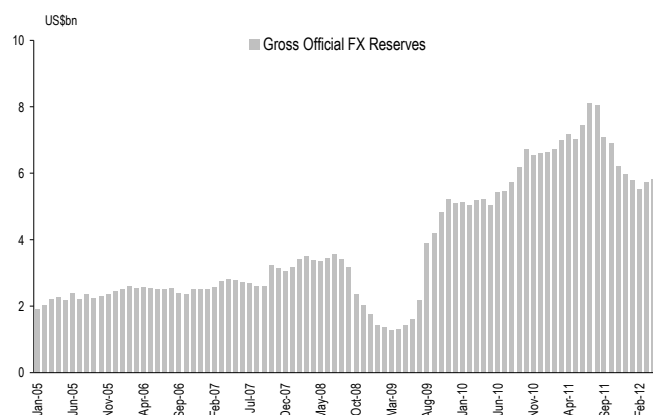


Figure 9A. Singapore

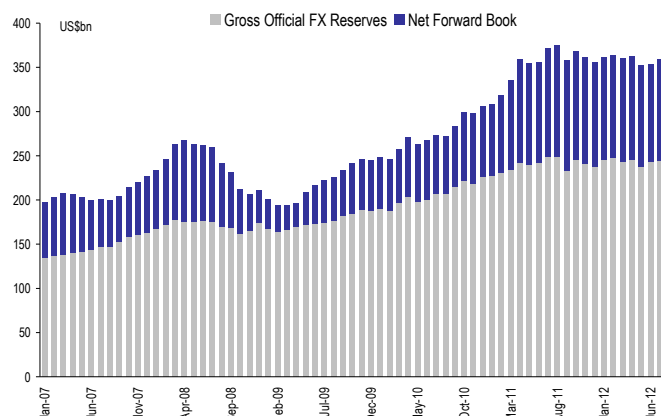


Figure 10A. Thailand

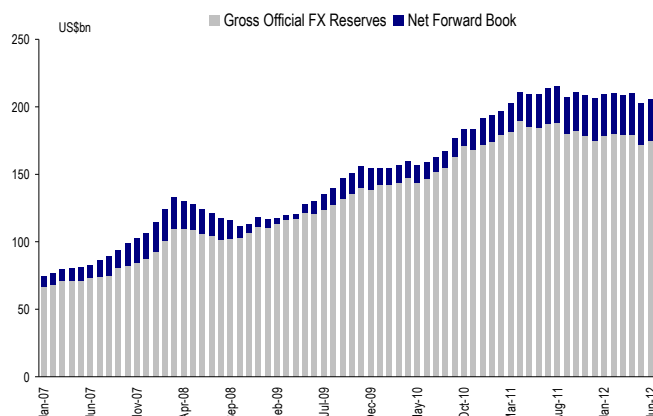


Figure 11A. Taiwan*

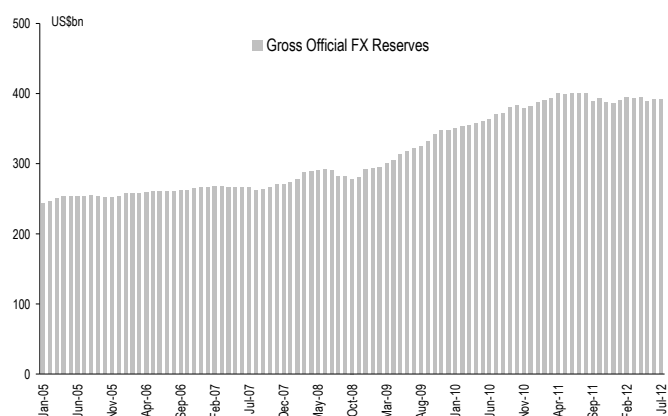
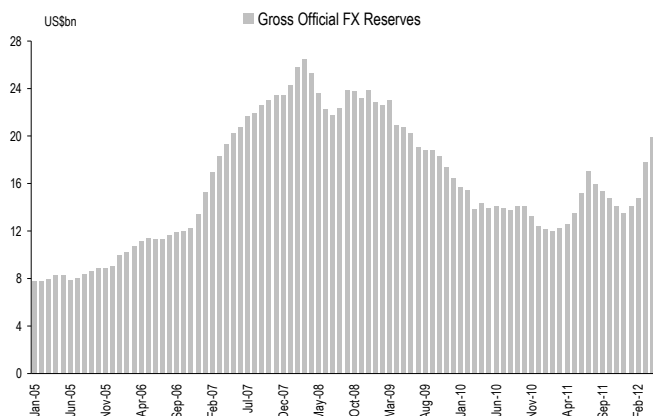


Figure 12A. Vietnam**



Source: CEIC, IMF, Various central bank's International Reserves and Foreign Currency Liquidity template

Note: *Data on net forward positions are not available. For Vietnam, we use IMF data on "International Liquidity ex-Gold" to define gross official reserves.

Appendix A-1

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