ACCA
Risk Management on Foreign Exchange

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OCBC Bank Malaysia

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Correlation of Income and FX Trends in Emerging Markets

For Dollar sellers, downtrend in USDMYR erodes profit margin or even result in potential loss

Example of Dollar Sellers:

- **Malaysian Exporters**
- **Foreign Investors investing into Malaysia over a period of time, e.g. USD 500m each year for 3 years. However when they eventually repatriate, they will benefit if USD continue to be bearish**
- **Corporates where receivables are in USD but loan in MYR**

Technical Analysis of USDMYR

USDMYR Mar 2009- Apr 2011

Source : Bloomberg, OCBC

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Potential loss on FX Exposure for Dollar Sellers

During the period Mar 2008 to Apr 2011 where USD depreciated against the MYR

- High on USDMYR: 3.7365
- Low on USDMYR: 2.9910
- Notional: USD 100,000,000.00
- Loss: (2.9910-3.7365)*USD 100mio = MYR 74,550,000
- **Percentage loss: 19.95%**

Correlation of Income and FX Trends in Emerging Markets

For Dollar buyers, uptrend in USDMYR erodes profit margin or even result in potential loss

Example of Dollar buyers:

- **Malaysian Importers**
- **Foreign Investors repatriating funds back home, e.g. Dividend or Capital Repatriation**
- **Local subsidiary repaying USD denominated loan to parent company overseas**
- **USD borrowers who do not have future USD receivables**

Technical Analysis of USDMYR

USDMYR Mar 2008- Apr 2009

Source : Bloomberg, OCBC

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Potential loss on FX Exposure for Dollar Buyers

During the period Mar 2008 to Apr 2009 USD appreciated against the MYR

- High on USDMYR: 3.7365
- Low on USDMYR: 3.1300
- Notional: USD 100,000,000.00
- Loss: (3.7365-3.1300)*USD 100mio = MYR 60,650,000.00
- **Percentage loss: 19.38%**

Example of FX Risk Exposure Transactions

- Dividend Repatriation
- Capital Injections
- Loan Extension
- Interest Payments
- Export Proceeds
- Import Payments
- Foreign Contract Bidding
- Cross Border Acquisitions

Different Countries Different Regulations

Malaysia's Foreign Exchange Administration

- MYR is not traded offshore

- For both residents and non-residents, they can buy/sell **spot** foreign currency against MYR for committed current account transactions and financial account transactions.

  (Note: (i) Current account transactions are transactions involving trading of goods and services (e.g. fees, commissions, royalties) and income (e.g. wages, salaries, dividends, interests).

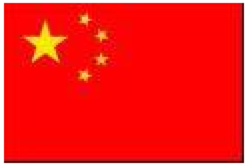
  (ii) Financial account transactions* are transactions involving direct (such as real estate) and portfolio investment (e.g. equity, debt securities) and other investments (e.g. trade credits, placement of deposits).

- Hedging are allowed for firm underlying commitment, e.g. based on trade invoices, foreign currency loan repayment etc.

- For hedging of current account transactions only, resident is also allowed to hedge with onshore bank based on anticipatory basis.

* Subject to prevailing rules on investment in foreign currency assets and foreign currency borrowings

Different Countries Different Regulations



Process of RMB internationalization

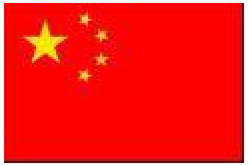
- PBOC maintains the currency in a managed float regime with reference to a basket of currencies

- Starting 2008, allow RMB bond issuance in HK and initiate RMB trade settlement in HK and various regional economies including Malaysia

- Establish swap agreements with various regional and global central bank

- CNH is allowed in various regional economies including HK, Malaysia etc. HK residents is limited to converting CNH 20,000 per day but in Malaysia, residents are limited as per ECM guidelines

Different Countries Different Regulations



Foreign Exchange regulations

- Allows free CNY convertibility relating to current account items, e.g. dividends, with designated FX banks
- Capital account items, e.g. repatriation of principal and interest , are subject to prior The State Administration of Foreign Exchange (SAFE) approval
- Onshore entities are allowed to hedge via FX forward contracts provided that they have documentary proof of underlying , e.g. trade agreements etc.
- For offshore markets, hedging can be done via ND Forwards, ND Options and ND Swaps

Different Countries Different Regulations

Foreign Exchange regulations

- Bank Indonesia maintains the currency in a managed float regime with reference to a basket of currencies
- Similar to Malaysia and China, rupiah is only tradable on a non-deliverable basis in the offshore market
- For onshore purchase of foreign currency against Rupiah the following condition applies to both residents and non-residents:
  - » For fx purchase below USD 100K or equivalent in a month, minimal documentation is required, ie. customer only need to forward a signed declaration statement letter
  - » For fx purchase above USD 100K or equivalent in a month, in addition to the signed declaration statement letter, the customer needs to submit documents evidencing the underlying transactions

Hedging Policies – Sharing of best practice

- Do not put all eggs in one basket – Risk Diversification
- Identify Hedging tools best suited for hedging policy
- Setup a hedging committee and policy with board approval
- Stick to the hedging policy and manage the book rate

Hedging Policies – Sharing of best practice

- Hedging will be done in tranches and there is a book rate agreed by board – each tranche will be executed systematically, covering 25% of each exposure (rolling hedge)
- Authorised dealers to execute and monitor the hedges – the result of the hedging will be part of their KPI
- Working closer with Bank Treasury dealers to get the latest market update and hedging tools available
- Obtain board’s approval for hedging policy and understanding that not all hedges are perfect but as long as it’s above the book rate and achieved the hedging objective/requirements, its an acceptable hedge

Hedging Tools to manage FX risk exposure?

- Outright FX Forward
- Plain Vanilla FX Options
  - USD Put & Call Options
- Zero Cost FX Structures
  - Bonus Protection Forward

Outright FX Forward Dollar buyer

A Malaysian furniture exporter just signed a contract to deliver USD 10 mio worth of furniture and will be receiving payment in 6 months

- Client has a view that USD will depreciate and continue current downtrend
- Client needs to hedge their exposure and lock in the Dollar proceeds
- They want to be sure of the USDMYR rate in 6 months for their costing

Pricing Parameters

Spot Reference Rate	: 2.9600
6 Months Forward Points	: 350pips / 0.0350
6 Months Forward Rate	: 2.9950
Amount	: USD 10,000,000.00

At expiry in 6 month's time:

Client will sell USD 10mio and buy MYR at the rate of 2.9950

Pros and Cons of an Outright FX Forward

Pros

- Client is fully protected from any Dollar depreciation
- Client is able to factor in FX into their costing when they quote buyer
- USDMYR forward market is a premium, client can benefit from the premium in selling Dollar forward

Risks and Opportunity Cost

- If Dollar appreciates client will have to forgo potential opportunity gain

Plain Vanilla FX Option – USD Call

An E&E manufacturer needs to repatriate MYR 30 mio back to Silicon Valley in two month's time

- Client is unsure of the direction of USDMYR but would like to be fully hedged
- Client does not mind paying for protection but needs to know their worst rate
- Client wants to be able to participate in the market if it moves in their favour

Example:

- Client bought the following USD Call Option (MYR Put):
- Notional: MYR 30mio
- Spot USD/MYR: 3.0000
- Strike: 3.0400
- Expiry Date: 24th Nov 2011
- Premium: MYR 195,000.00 (1.95%)

At Expiry:

- If at expiry USDMYR is at or above 3.0400, client will exercise the option and buy USD 10mio against MYR at 3.0400

Comparison between FX Option and Forward

Premium Cost (pips)	0.0581
Notional (USD)	10,000,000.00
Notional (MYR)	30,000,000.00
Spot	3.0000
FXO Strike Rate	3.0400
Breakeven Rate (Compared to Forward)	2.9810
Forward Rate	3.0400
Cost	1.95%

Scenario of various Spot level at maturity			
Spot level	Net USD proceeds (with FXO hedge)	Net USD proceeds (with Forward hedge)	Difference
2.9200	10,078,972.60	9,868,421.05	210,551.55
2.9400	10,009,081.63	9,868,421.05	140,660.58
2.9811	9,868,421.05	9,868,421.05	- 0.00
3.1000	9,673,421.05	9,868,421.05	- 195,000.00
3.5000	9,673,421.05	9,868,421.05	- 195,000.00

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Plain Vanilla FX Option

Benefits

- Client has the right, not the obligation, to exercise the option – meaning unlimited upside participation/gain
- Client knows what is their worst case scenario
- Suitable for clients that are willing to pay a premium for protection and unsure of the direction of the currency pair they are exposed to

Risks and Opportunity Cost

- Client has to pay a premium to enjoy this protection and unlimited upside participation/gain

Zero Cost FX Structures

- FX Structures used to manage and/or mitigate FX Risk
- Involves no additional cost for customers
- Allows customers to buy/sell foreign exchange at better than forward rates
- Can be tailored to customer requirements
- Allows clients with a view to take advantage of their view in hedging their FX exposure

Bonus Protection Forward (Exporters)

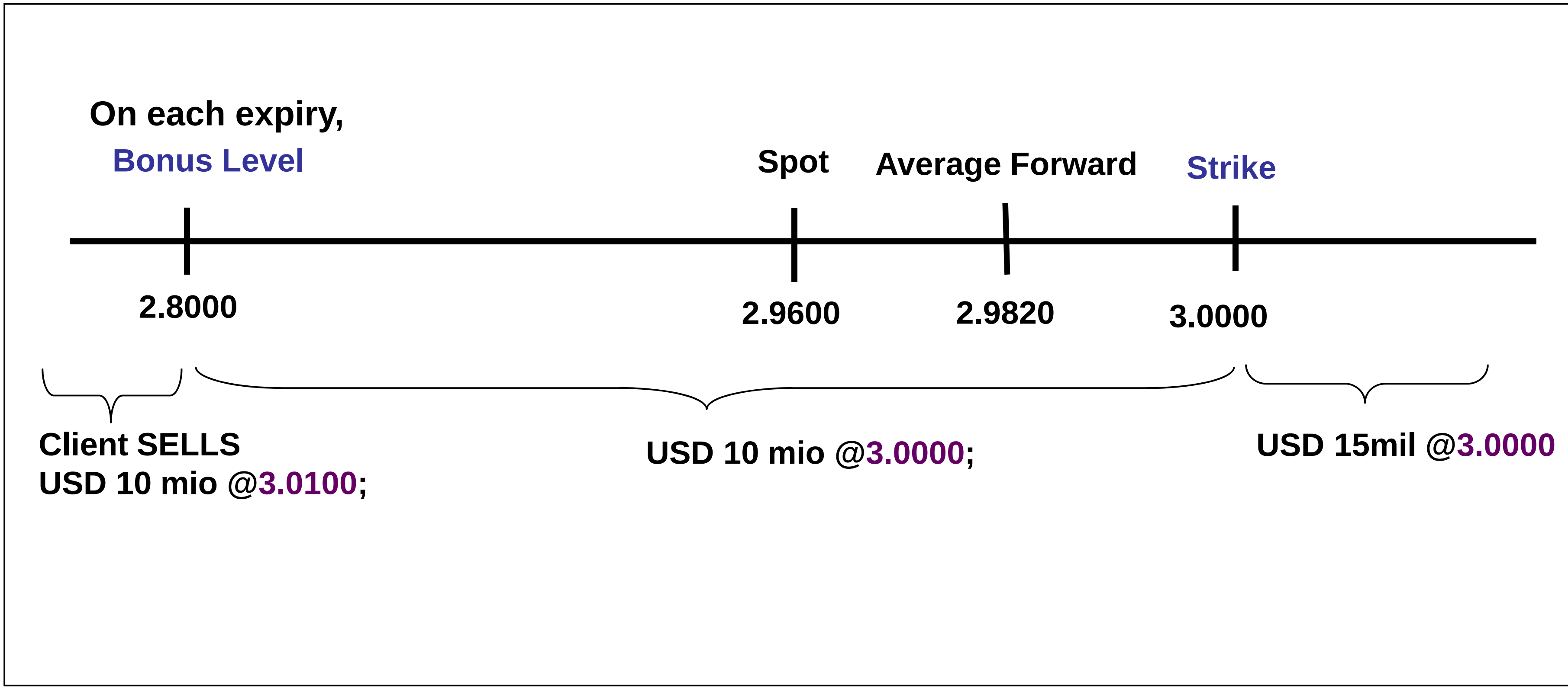
Benefits

- Client can potentially sell USD at a better than market rate on Expiry Date
- Client will be hedged at a Strike rate which is better than market rate as long as it fixes below the Strike Level.
- Client will be at least 50% hedged for the entire tenor.

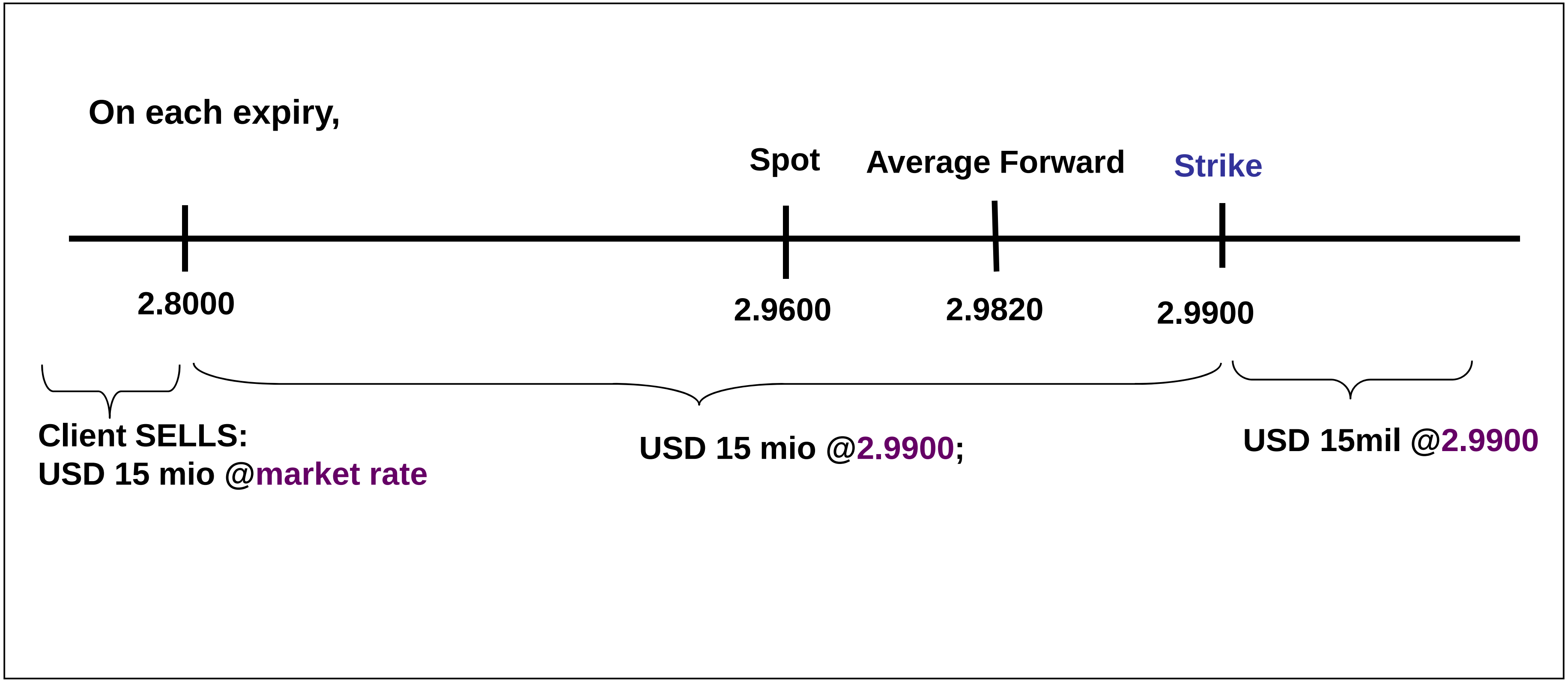
Risks and Opportunity Cost

- If USD/MYR fixes above the Strike Level on Expiry, Client will have to sell USD at the Strike rate and forgo the potential opportunity gains.
- If USD/MYR fixes below the Strike Level, Client will have to sell the unhedged portion at market rate

USDMYR Bonus Protection Forward (Exporters)



USDMYR Bonus Protection Forward (Exporters) - variation



FX Outlook

Global Overview

• Near term dollar vulnerability may continue to exist given the Fed remains a relative laggard in terms of its monetary policy cycle.

• Periphery EZ issues may however cap excessive EUR upside.

• We ultimately expect the Fed to embark on a tightening stance (and pare its balance sheet). At this juncture, we expect a readjustment of market positioning in favor of the greenback.

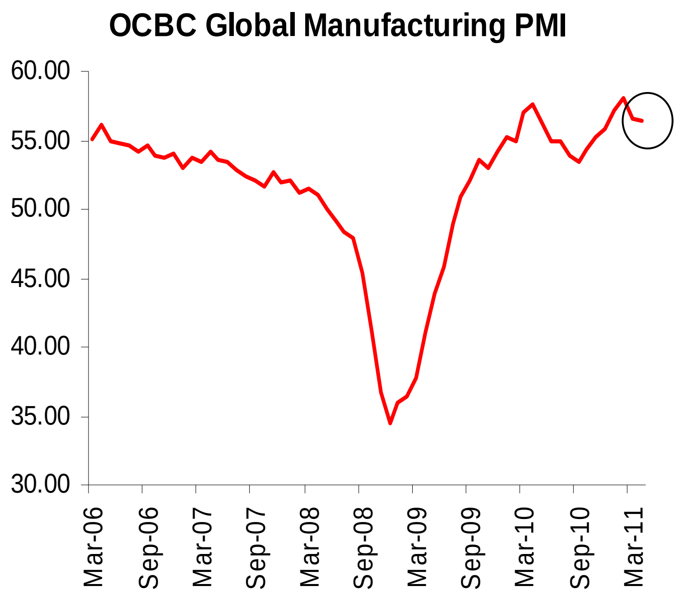
• On the fundamental front, the global economy may be entering into a more consolidative phase, although firm commodity prices are expected to remain a core issue for global central banks.

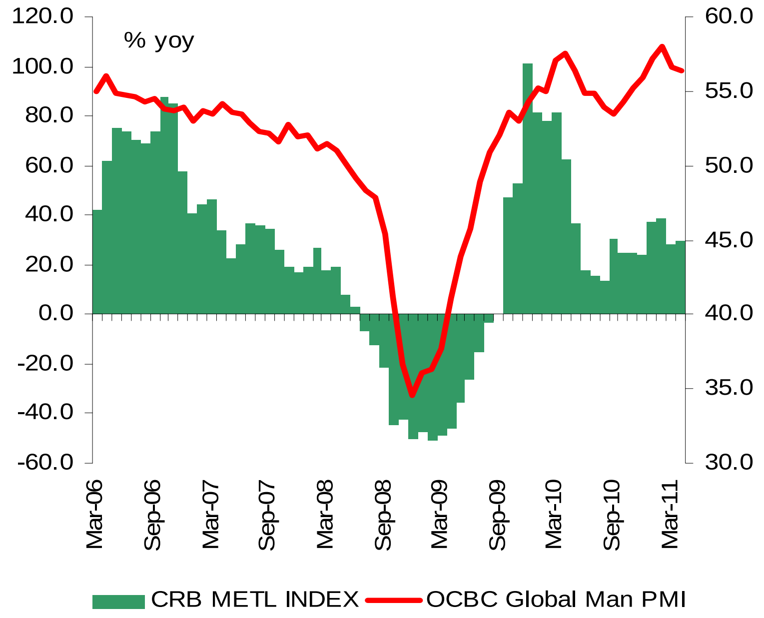
• In Asia, central banks remain vigilant on the inflation front. Coupled with a resumption of investment inflows into the region, Asian currencies are seen on an appreciating bias against the USD.

• The positive implication of Malaysia's growth and external payments fundamentals also places the MYR on a favorable footing.

Global economic activity consolidating

• Global manufacturing activity consolidates lower for the second consecutive month (first contraction on a 3M sequential basis in six months) but remains in expansion territory. Note however a warning signal from prices of the basic materials index.





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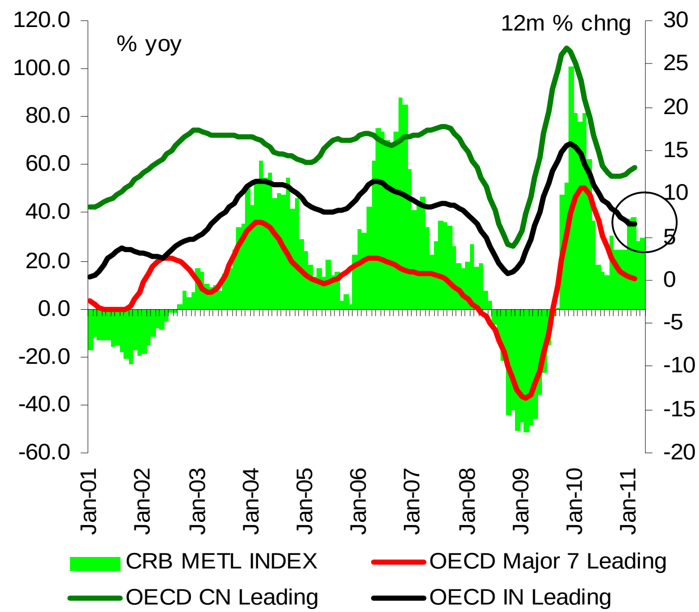
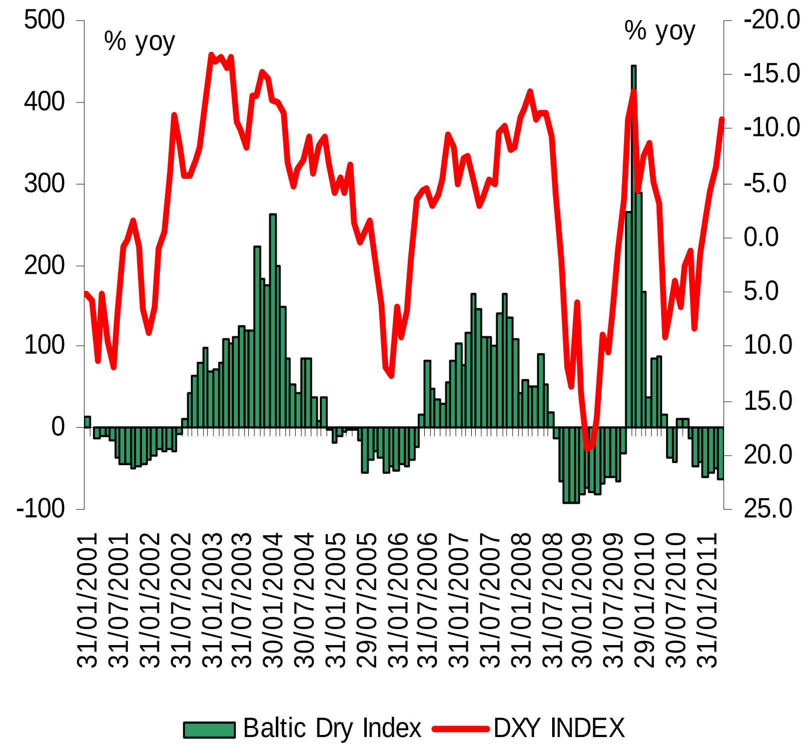
Looking ahead

• CRB METL index (of raw manufacturing input prices) portending a stabilization of OECD leading indicators?

• Baltic Dry may be a potential caveat for global risk appetite – USD strength beyond the near term? Typically, Baltic Dry performance is inversely correlated to the USD.

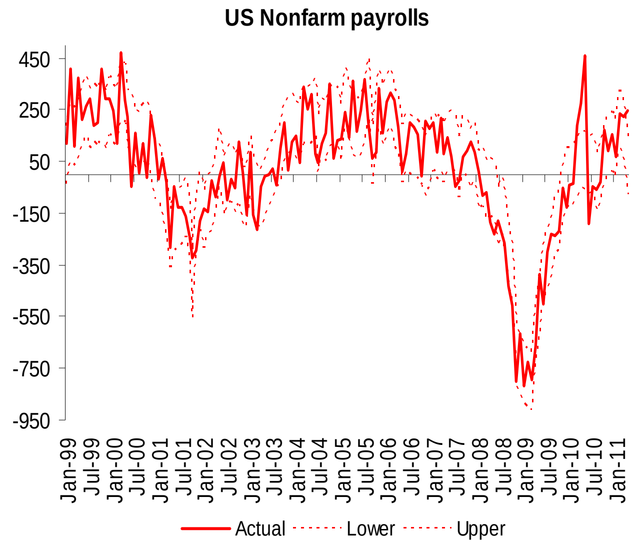


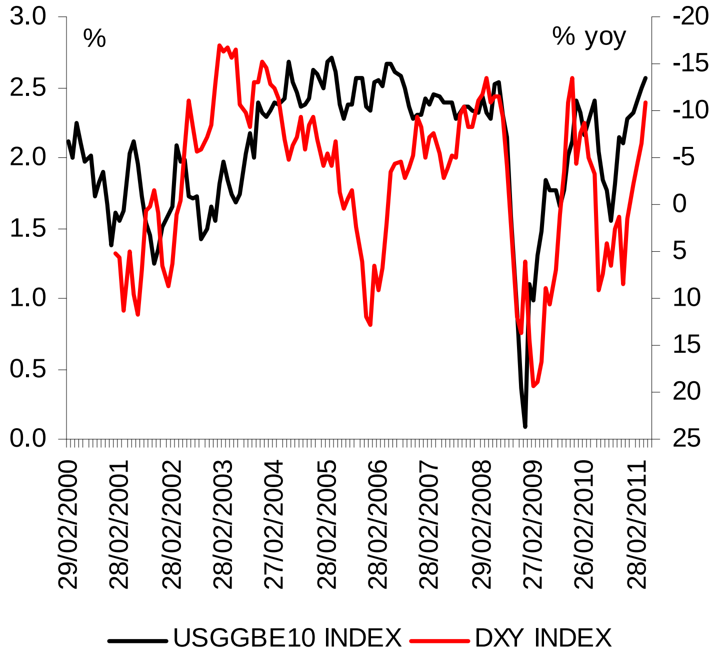


US labor market update

• Explanatory variables in our NFP model suggest that the latest upside surprise in the headline number may have been an outlier – a cautionary signal we think.

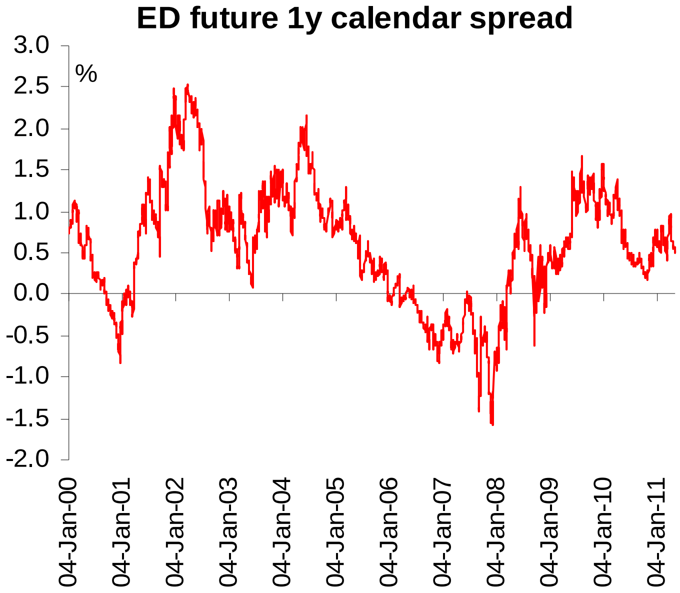
• Note higher US breakevens had also been suggestive of USD weakness. However, further disappointment on the US data front risks a re-evaluation of a weak dollar landscape.

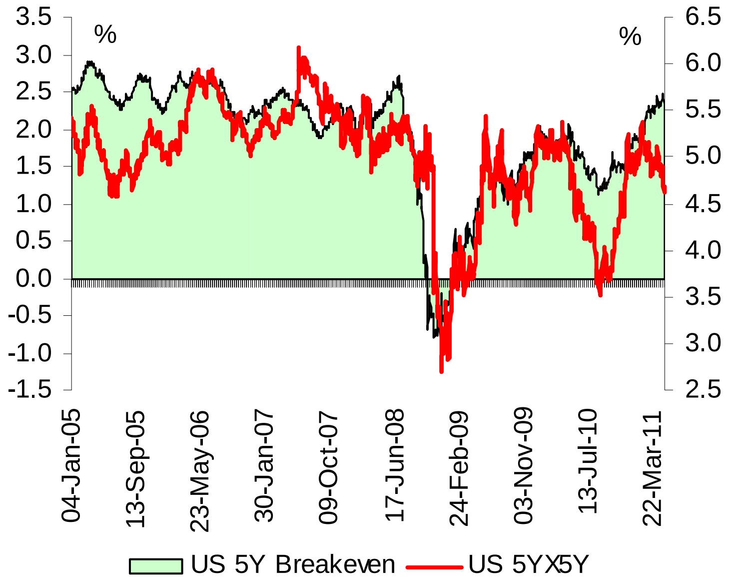




Rate markets still subdued?

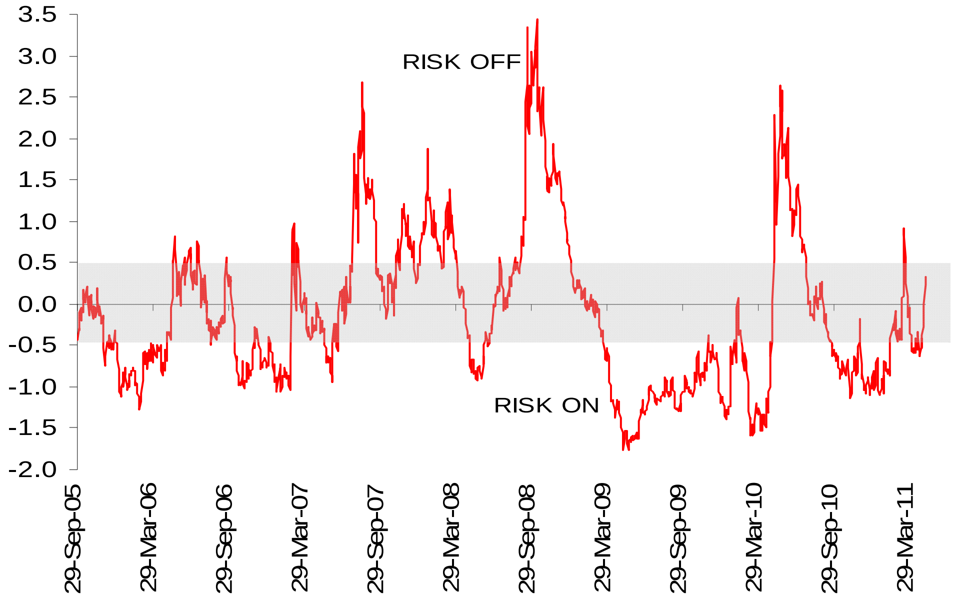
- Inflation expectations and interest rate markets have stabilized and consolidated since early Apr 11 (note the flat breakeven curve), and last Fri's NFP also failed to change the status quo significantly.





FX Sentiment Index (FXSI)

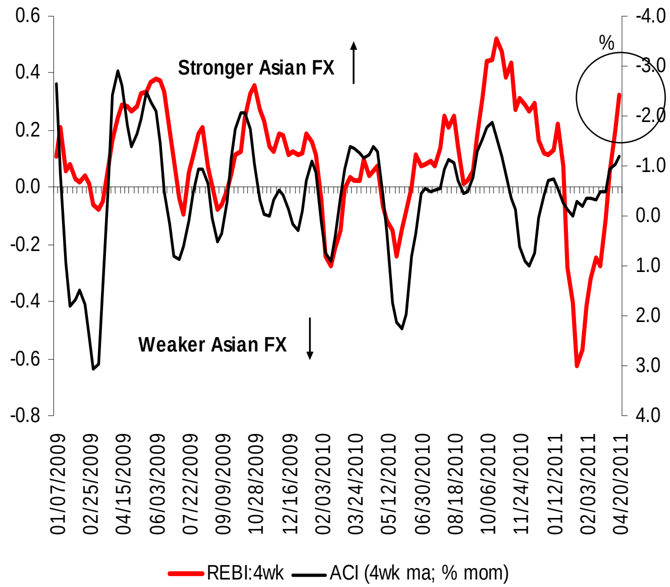
• Global risk appetite levels still residing in Risk-Neutral territory, especially with the recent in commodity markets renewed periphery EZ concerns.



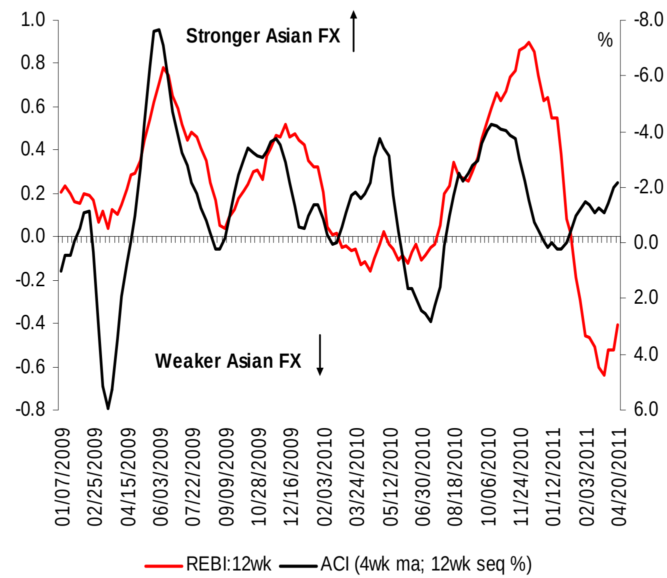
Source: OCBC Bank

Emerging market equity-bond flow performance

• The swing in favor of equities with respect to bonds (from the perspective of fund flows) in EM continues has continued to strengthen - facilitating Asian FX resilience.



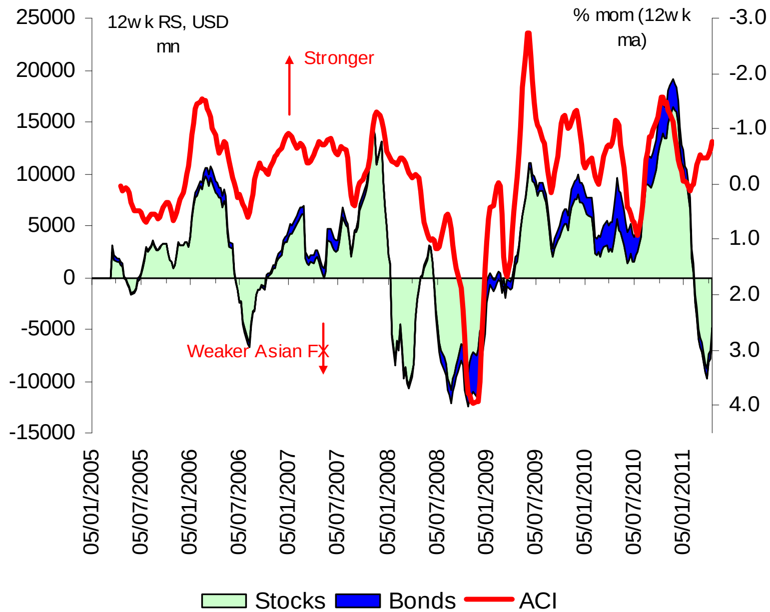
Source: EPFR, OCBC Bank

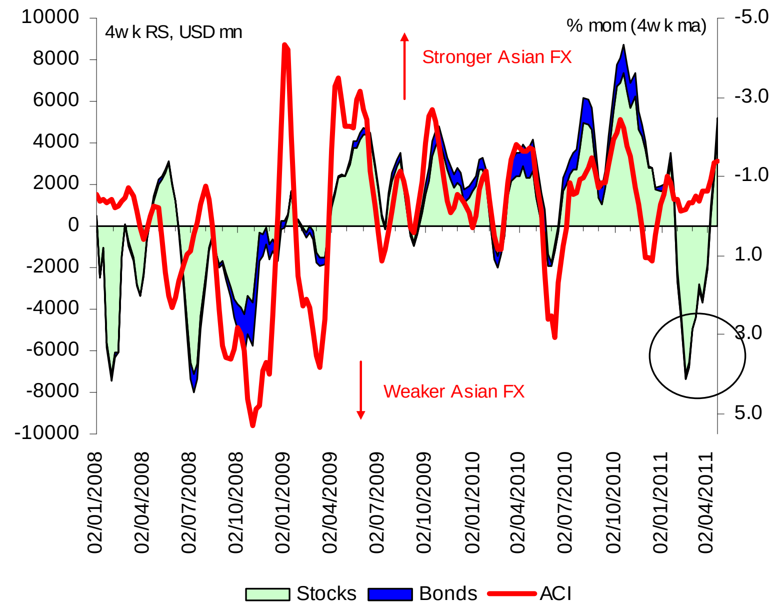


Source: EPFR, OCBC Bank

Reported net foreign fund flows into Asia

- Investor interest in Asian equities and bonds supportive of Asian FX.





Source: EPFR, OCBC Bank

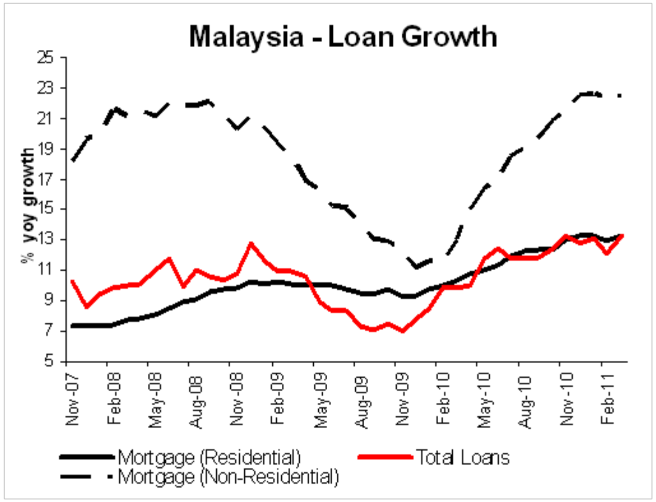
Source: EPFR, OCBC Bank

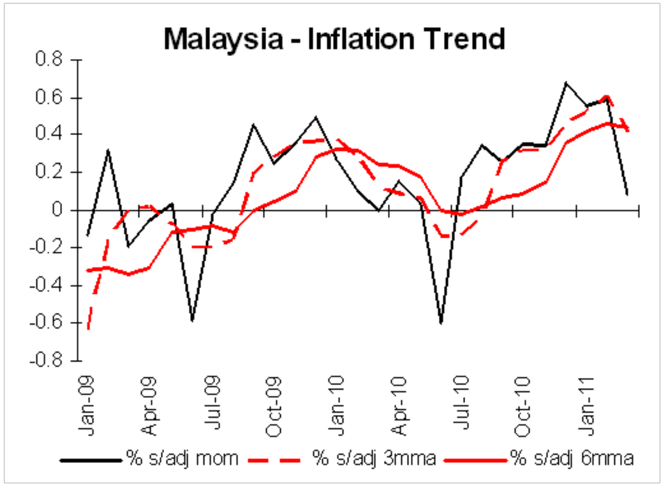
Malaysia

Frontloading *all* its tightening?

BNM raised its OPR by 25bps to 3.0% and its SRR by 100bps to 3.0% on May 5. While we have expected the SRR hike, the OPR rate hike came slightly as surprising, mostly because of its timing. The moves are thought to be more aggressive than usual, although they did come just as exports data has been coming in consistently strong in Q1.

We don't expect the BNM to be in a hurry to return to the pre-crisis levels, as the **BNM had a dovish leaning** in its May policy statement. At most 1 more 25bps OPR rate hike is to be expected at this juncture.





BNM's concern lies with liquidity in the market, epecially with mortgage loan growth still well above overall loan growth

While inflationary pressures remain tilted towards the upside, current momentum has somewhat eased.

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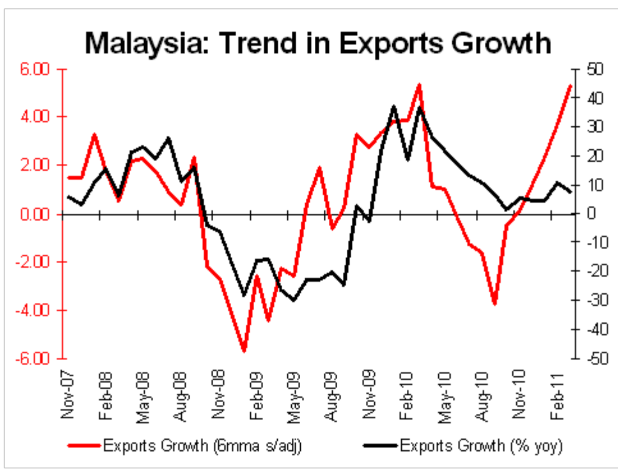
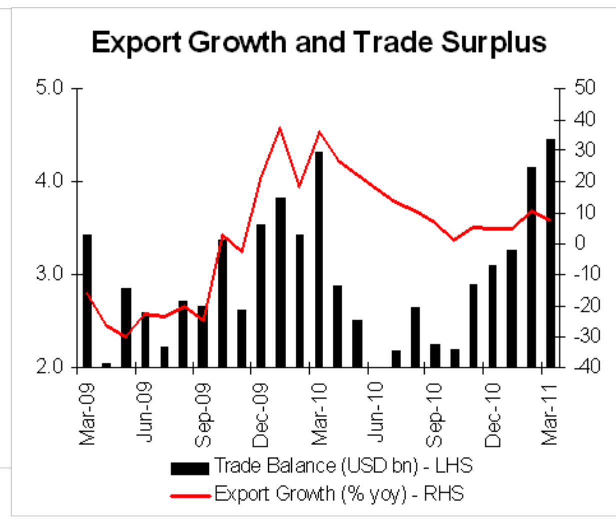
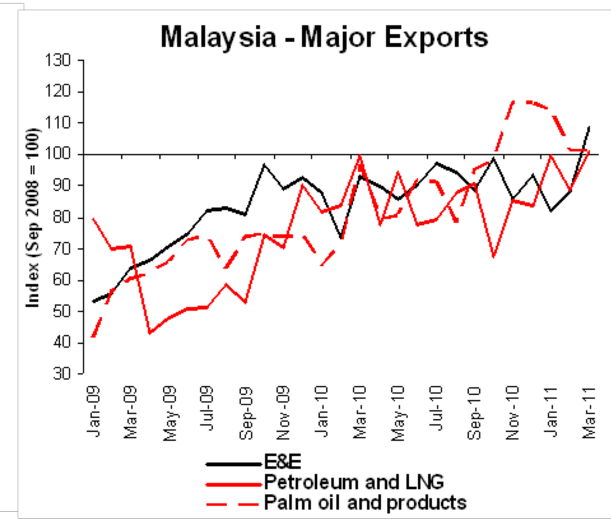
Exports strength persists in March

At 7.8% yoy, export growth came in well above market expectations (OCBC forecast: 2.8% yoy) while import growth remained in the double-digit territory at 12.1% yoy. Both figures capped what is now clearly a strong performance in the external sector during Q1, and **we now expect the economy to chalk an expansion of about 4.8-5.5% yoy in the period.** USD 4.5bn trade surplus seen in March is at its highest since mid-2008.

The March export data indicates that exports of Electronics&Electrical components (E&E) have now surged above the pre-crisis level for the first time since Q4 2008.







Recent surge in trade surplus has been a key support to the MYR

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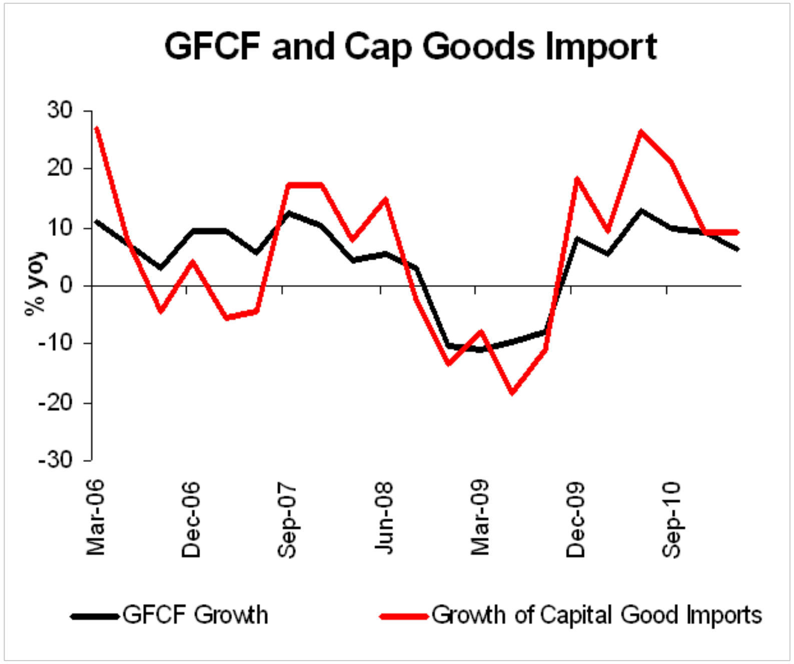
Investment Growth Remaining as Key

While both export and private consumption growth has been strongly supportive of the economy, it is private investment that is the key for Malaysia to build its momentum for the next 5 years or so. On this front, we are less than encouraged, especially noting that imports of capital goods have somewhat stalled at around the 6-9% yoy in Q1, unlikely to lead private investment growth returning to the double-digit territory, which is essential for the government's medium-term growth target.

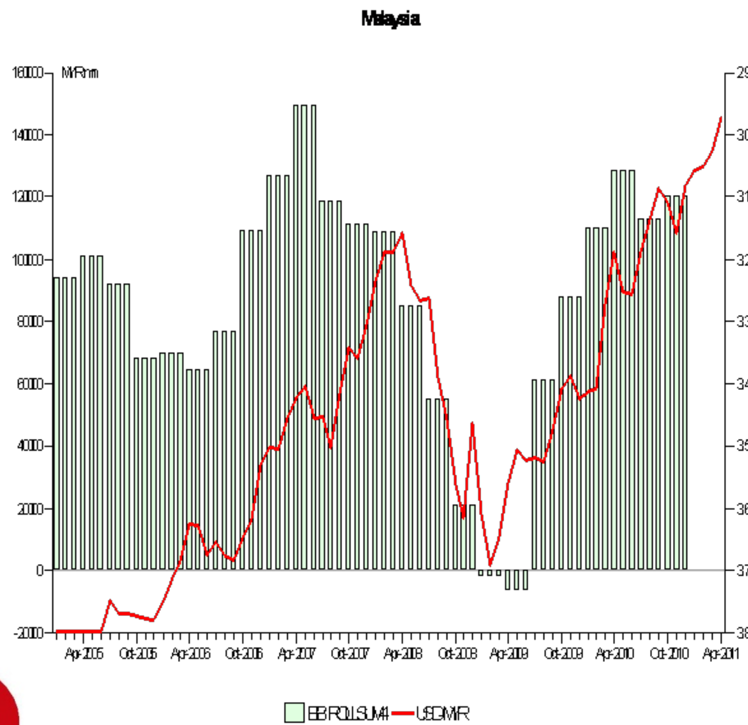
There may be continued tolerance of a stronger MYR in the market, as the authorities may want to further spur investment growth.

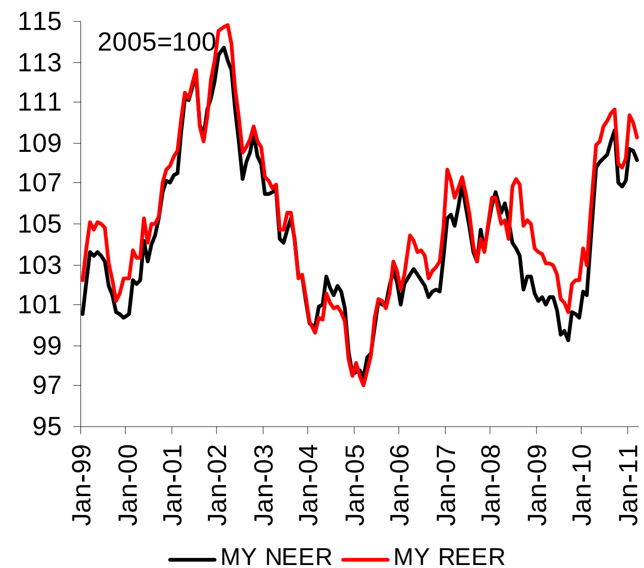


Basic balance health check - Malaysia

• MYR valuation has been driven higher by the basic balance from 2010.

• Malaysian inflation relative to global trading partners a non-issue on the macro front but commodity prices bear watching.





Source: BIS

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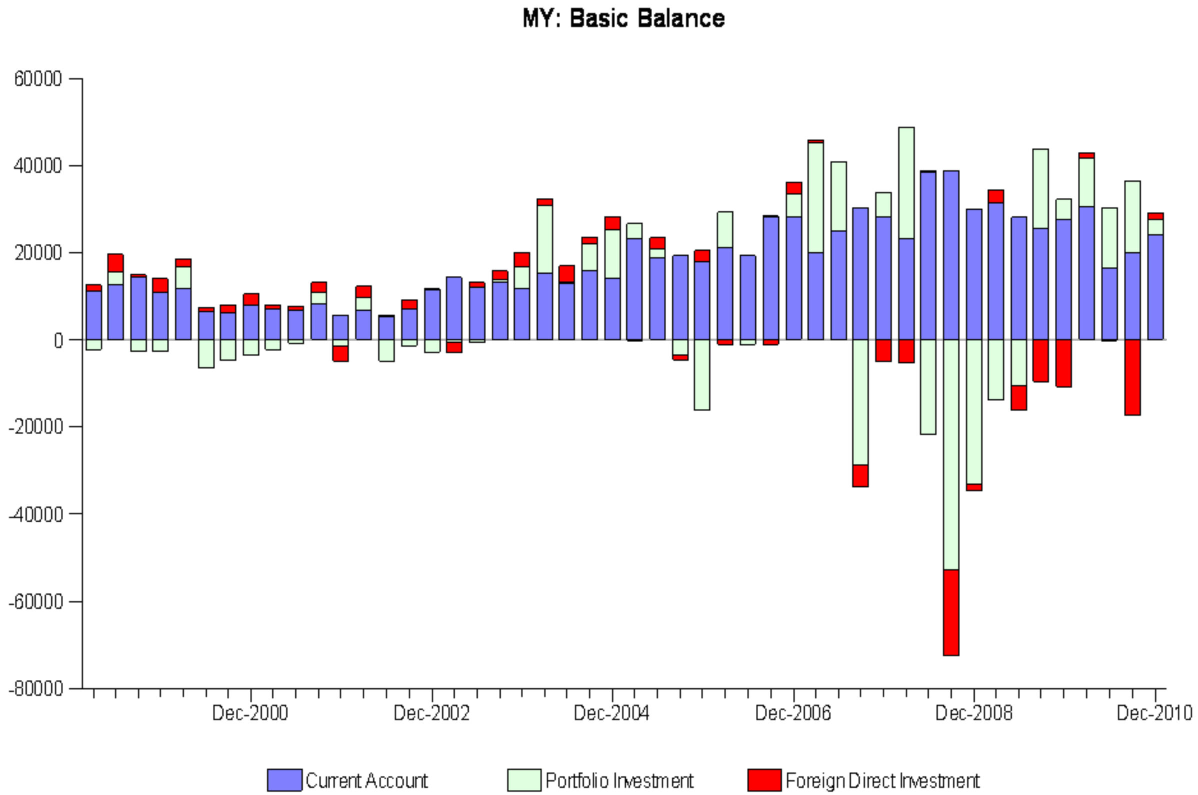
MYR Outlook

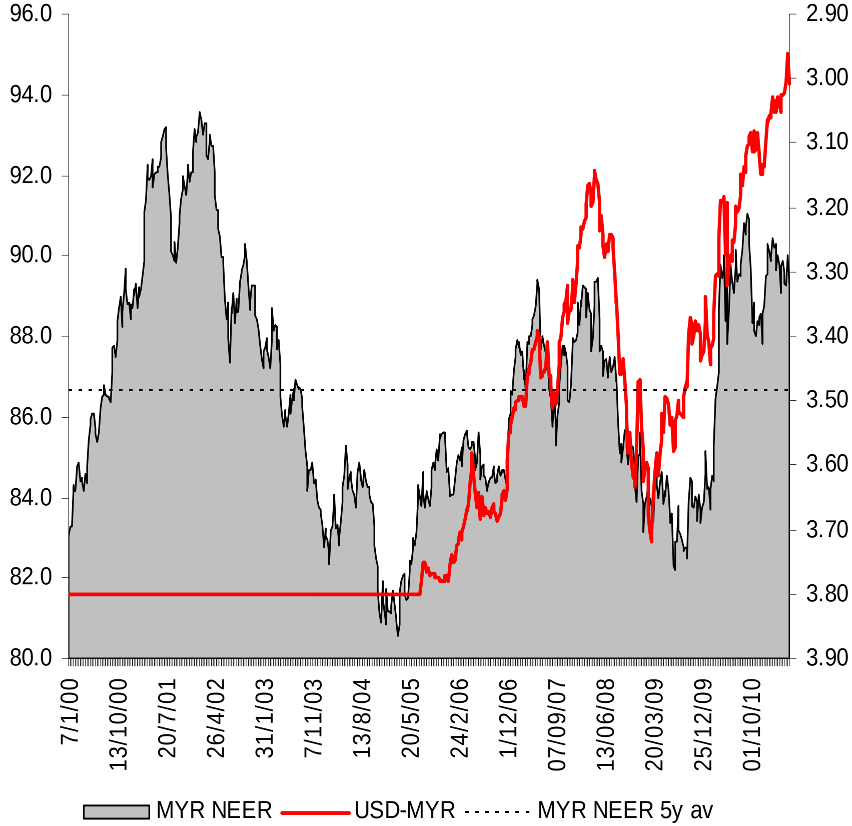
• With some expected moderation in the current account this year, MYR fortunes will be heavily reliant on investment inflows and global risk appetite levels.

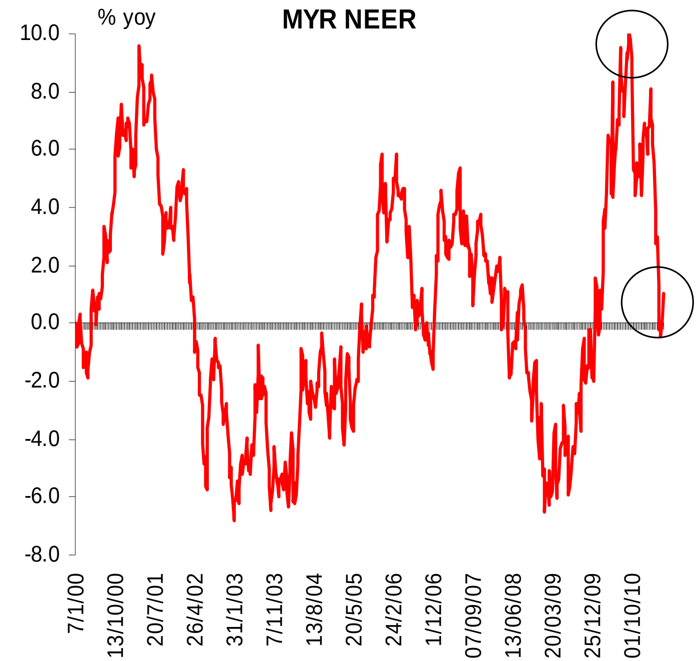
• We note a resumption of investor inflows into Asia in 2Q 11.



MYR Outlook (II)

- The MYR NEER is reflecting a a positive outlook for Asia.





Central tendency FX forecasts

	21-Apr-11	Jun-11	Sep-11	Dec-11	Mar-12
USD-JPY	81.96	84.48	85.83	87.19	88.55
EUR-USD	1.4609	1.4600	1.4750	1.4467	1.3967
GBP-USD	1.6472	1.6467	1.6567	1.6367	1.6017
AUD-USD	1.0764	1.0683	1.0808	1.0558	1.0121
NZD-USD	0.802	0.8067	0.8167	0.8033	0.7783
USD-CAD	0.9474	0.9433	0.9333	0.9467	0.9717
USD-CHF	0.8847	0.8817	0.8692	0.8983	0.9483
USD-SGD	1.2350	1.2293	1.2171	1.2048	1.1926
USD-CNY	6.5183	6.4775	6.4138	6.3500	6.2863
USD-THB	29.9	29.73	29.48	29.23	28.98
USD-IDR	8620	8608	8576	8543	8511
USD-MYR	3.007	2.9875	2.9613	2.9350	2.9088
USD-KRW	1078.20	1070.00	1055.00	1040.00	1025.00
USD-TWD	28.88	28.74	28.43	28.12	27.80
USD-HKD	7.7711	7.7629	7.7500	7.7500	7.7500
USD-PHP	43.15	42.83	42.58	42.33	42.08
USD-INR	44.30	44.12	43.84	43.57	43.29

Source: OCBC Bank

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