

APAC Economic Perspectives

ASEAN and India: What will governments do about slow growth? And why it matters.

Economics

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Outlook 2016 – financial grind

In our recently published [Asian Economic Outlook 2016-17](#) we argued that Asian growth would remain soft – challenged by high debt levels in export markets and at home. In this companion note, we argue that the pressure on governments to respond could put sovereign creditworthiness under pressure.

What will governments do about slow growth?

We expect a financial grind rather than a crisis, but that still points to slow growth. As this persists, governments will feel under pressure to react. All governments are promising reform to improve economic outcomes. Reform momentum appears to have been effective in India and Philippines in recent years, but there could be a step-up taking place in Indonesia, Malaysia and Thailand. Outside India, we expect limited easing of conventional monetary policy levers. We believe Indian, Malaysian and Indonesian fiscal policy is constrained by the level of debt or deficits. In some economies this has already contributed to pressure on SoE's to support economic activity. Thailand, Philippines and Singapore have room to act on fiscal policy and we look for moderate fiscal stimulus in 2016.

What are the implications for public creditworthiness?

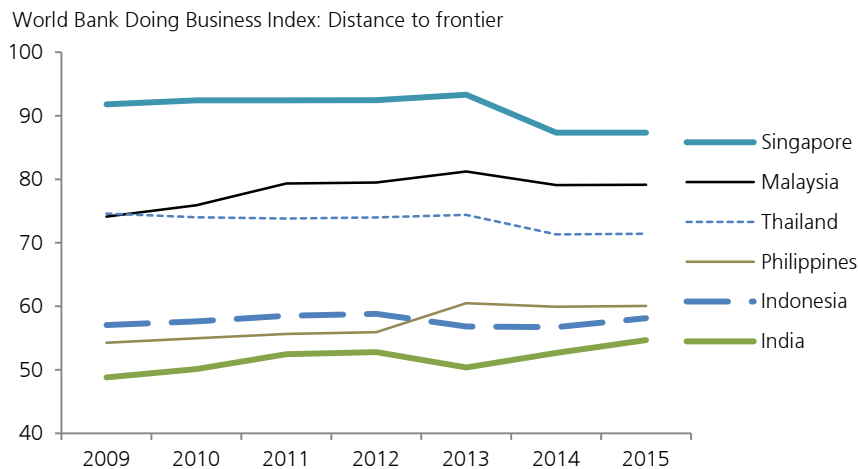
Expansionary fiscal policy in response to slow growth or even slower than expected growth on its own have the potential to impact market assumptions of public sector creditworthiness. This is all the more likely if the weakness in private sector balance sheets leads to public assistance – a non-negligible risk in where private credit has risen sharply in ASEAN. As such, ASEAN and India could be part of an EM trend of deteriorating creditworthiness – a theme which Bhanu Baweja has laid out in [Global Macro Strategy: EM enters a new, dangerous phase](#). The good news is that India and ASEAN in general are in a stronger starting position than many emerging markets. Singapore and Philippines in particular appear relatively strong.

Have currencies corrected enough yet?

Euro weakness and the EM wide nature of deteriorating growth and creditworthiness mean that, despite falling verses the USD and CNY, Thai, Indonesian, Philippine, Singaporean and Indian price competitiveness has not improved much. Using data from the OECD/World Bank International Comparison Program, we find that prices in Malaysia look relatively low while those in India and Philippines look high given relative income levels. That suggests relatively less depreciation and disinflation pressure for Malaysia and relatively more in Philippines and India.

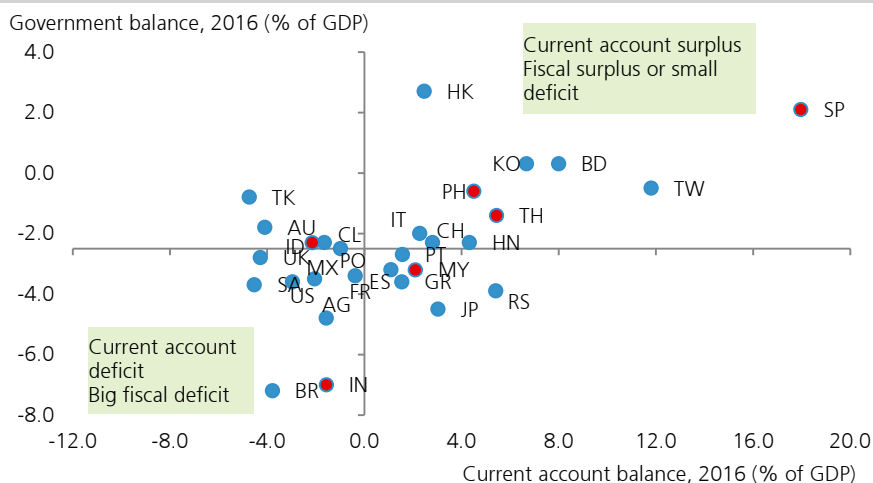
Pictures that tell a story

Figure 1: ASEAN and India business environment relative to best practice



Source: UBS, World Bank

Figure 2: Fiscal and current account balances in context



Source: IMF projections

Figure 3: Return on Equity for SoE's and non-SoE's in ASEAN and India



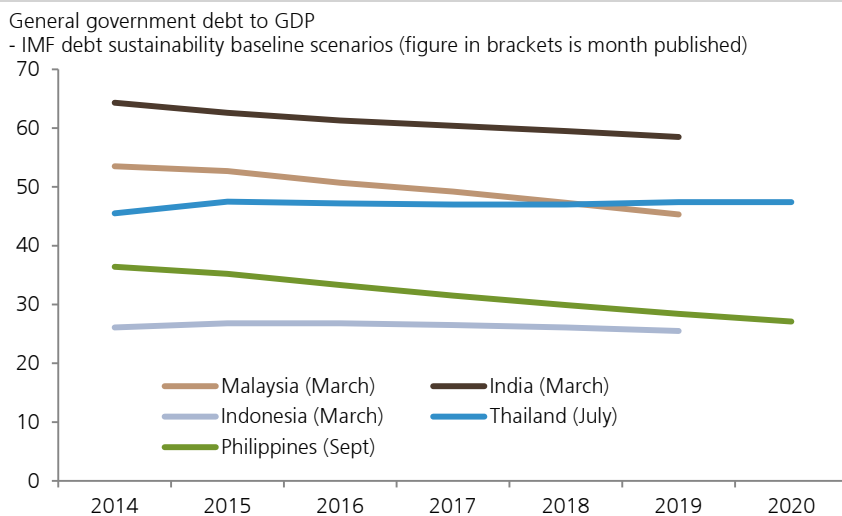
Source: UBS Note: Chart shows data for MSCI GEM countries only (i.e. ex-Singapore). Definition of SoE as per UBS methodology adopted by Global Emerging Markets Strategist Geoff Dennis

Growth has weakened across ASEAN. To revive it, all ASEAN and Indian governments are promising reform. The problem is that progress can be slow.

The temptation will be to adopt expansionary policy. However, effectiveness of monetary and budgetary stimulus can be challenged by domestic financial constraints and external deficits.

Governments can also choose to lean on State owned Enterprises for 'national service' to achieve their goals (at the risk of lower economic efficiency).

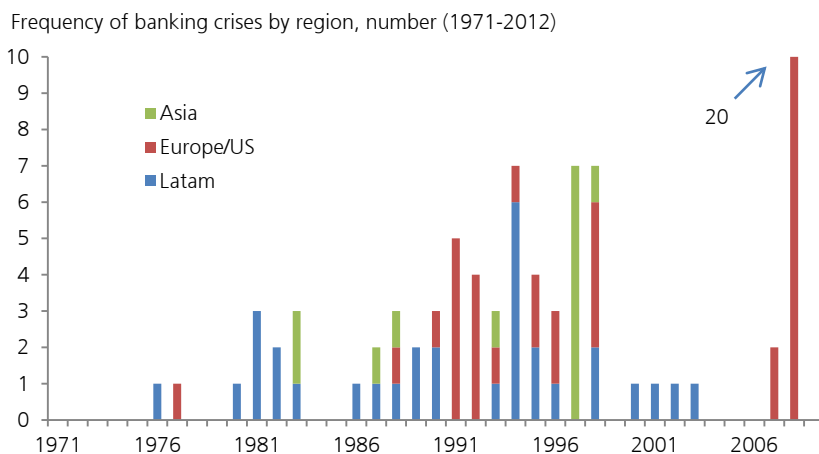
Figure 4: IMF public debt to GDP trajectories



Source: IMF projections

Unfortunately, in addition to wider deficits, seemingly favourable public debt outlooks can be upset by disappointing growth, higher interest rates and weaker currencies (all of which are possible in coming quarters).

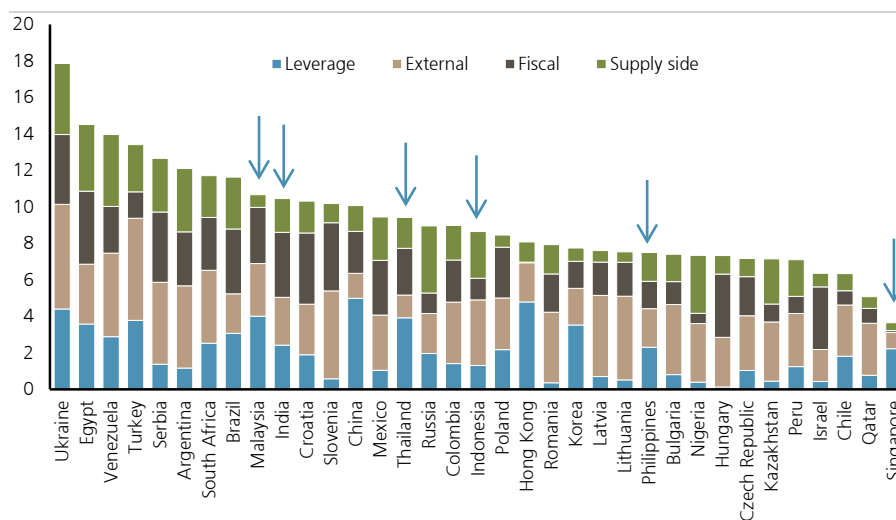
Figure 5: Bunched banking crises



Source: UBS, IMF Working Paper - Systemic Banking Crises Database: An update, Laeven and Valencia (2012)

Untoward outcomes can also result in higher public debt. These are relatively rare, but more likely after rapid increases in private credit. They can also be contagious.

Figure 6: UBS EM macro balance sheet scores for ASEAN and India in context



Source: UBS

The risk is a deterioration in credit quality – wider credit spreads and weaker FX. The good news is that ASEAN and India's starting position is relatively healthy in an EM context. Singapore and Philippines in particular look relatively strong.

What can governments do?

ASEAN growth expectations continue to deteriorate. In recent weeks we have revised lower our outlook for 2016 growth for all the ASEAN-5 and Indian economies save Philippines. In [Asian Economic Perspectives: Outlook 2016](#) Head of Asian Economics Duncan Wooldridge argued that growth will remain soft due to high debt levels in export markets and at home.

Governments are unlikely to take this lying down. Political leaders will feel under pressure to 'do something'. There are a number of broad categories of policy under which the government may intervene in the economy – summarised in Figure 7.

Figure 7: Policy options

		Positives	Negatives
Reflate	Ease monetary policy	Can support or extend credit cycle	Suffers from diminishing marginal returns. Adds to prior excesses of credit cycle
	Fiscal budget stimulus	Impulse to growth (depends on source of funds)	Can result in crowding out
	SoE support for employment/investment	Off general government balance sheet	Still on public sector balance sheet. May not help efficiency of economy.
Reform	Pro-market reform	Helps wider economy/consumers	Hurts certain groups/industries
	Regulation/macro-prudential measures	Can stop markets from creating outcomes undesirable in the eyes of policy makers	Potential impediment to economic activity/growth
	Regional cooperation/Patronomics	Regional cooperation could support trade and manage economic and financial risks	Potential diversion rather than creation of economic activity

Source: UBS

Figure 8 below summarises our judgement of the policy direction in each economy. Recent rhetoric and action suggest a mixed policy agenda from governments.

Figure 8: Policy direction

	India	Indonesia	Malaysia	Philippines	Singapore	Thailand
Ease monetary policy	Underway	Likely	Not imminently	Not imminently	FX policy eased	Underway
Fiscal budget stimulus	Reduced	Neutral	Reduced	Increased	Increased	Increased
SoE support for employment/investment	Yes	Yes	Yes	Yes	No	Yes
Pro-market reform	Yes	Yes	Yes	Yes	Yes	Yes
Regulation/macro-prudential measures	Yes	Yes	Yes	Yes	Yes	No
Regional cooperation/Patronomics	Yes	Yes	Yes	Yes	Yes	Yes

Source: UBS

Reflate or reform?

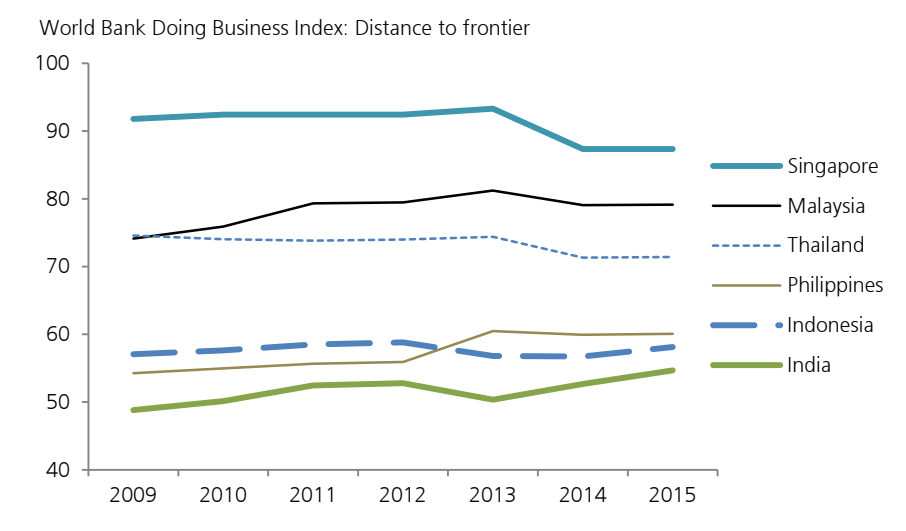
Governments can adjust the regulatory environment either by making it easier to do business (pro-market reform), encouraging regional linkages (pro-market reform) or making it more difficult for markets to deliver undesirable outcomes (macro-prudential measures).

All regional governments are promising reform to enhance economic outcomes

- **India:** Prime Minister Modi's government has promised to roll out the red carpet rather than red tape for business. Budget policy has reduced subsidies, increased investment and promised a simplified corporate tax code (see also [India Market Strategy – Budget a positive for medium-term; growth disappointment near-term likely](#) (2 Mar 2015)). Prominent reforms have been slowed or halted by the political headwinds but efforts to tame inflation are on track and smaller state level reforms have made progress. In 2014, the government allowed employers to self-certify compliance with some federal labour laws. Small firms have been exempted from onerous employment related recording and reporting. According to a World Bank backed study, state governments have implemented 32% of a list of 98 measures for streamlining regulations.
- **Indonesia:** The government has recently announced several packages of reform linked to i) deregulation; ii) investment; iii) energy, iv) the labour market; v) financial markets; and vi) economic zones. Measures have varied between genuine easing of the business environment and regulation. However, we believe soft growth is leading towards a more pro-market policy agenda on the part of the Jokowi administration.
- **Malaysia:** The recent budget included no major reforms and currency weakness has added emphasis to financial macro-prudential regulation. However, in a clear step towards pro-market reform Malaysia's government negotiators agreed, in early October, to take part in the Trans Pacific Partnership – which will reportedly be brought to parliament in January. See also [APAC Economic Comment: Malaysia – is policy paralysed?](#)
- **Philippines:** Congress passed pro-market legislation in the form of a Competition Act and repealed restrictive Cabotage legislation in July. Previously, foreign ownership restrictions in the financial sector were significantly liberalised. Further reform will no doubt be promised by candidates for the May 2016 Congressional and Presidential elections.
- **Thailand:** With infrastructure spending progressing more slowly than hoped, the government announced a set of (mostly credit related) stimulus in September and October (see also [Thailand Strategy - Downgrade 2016E GDP on infrastructure delays](#) (19 Oct 2015)). More recently, Deputy Prime Minister Somkid Jatusripitak has promised business friendly reform to enhance growth.
- **Singapore:** Macro-prudential measures to manage the property market specifically and household leverage in general remain in place. Measures to increase productivity via subsidies for investment and reduced availability of foreign labour remain prominent, but may be adjusted in coming months. Redistribution of income in support for an ageing population has also been a key driver of policy in recent years. Singapore has also agreed to trade barrier reducing deals with the EU and is in the TPP – the most advanced ASEAN-5 state in this regard.

However, past experience suggests investors should be cautious in expecting rapid changes in the business environment. The following Figure shows a summary statistic from the World Bank's Doing Business report 2016 – released in late October. The 'Distance to Frontier' shown is an attempt to gauge how each country's business environment compares with global best practice – as defined as the least costly in terms of time and treasure to do business. A score of 60 implies that the country in question has recorded outcomes across 36 Doing Business metrics equal to 60% on average of the best country in each metric. As such, the metric is relative and that global best practice is a moving goalpost. The logic is that the easier it is to do business the more economic activity will take place and the higher incomes will be¹. Figure 9 shows only India made a new high in the business environment in 2015 relative to 2014; and yet remains in a position where there should be plenty of low hanging fruit to be gained from reform. This said, Philippines and Malaysia both made similar improvements over the six years shown, with Philippines progress being more recent.

Figure 9: ASEAN and India business environment relative to best practice

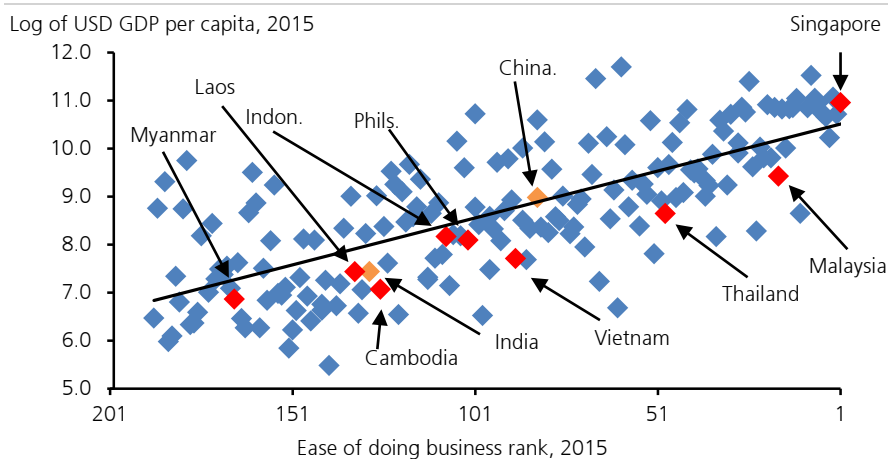


Source: UBS, World Bank

World Bank Doing Business indicators are often criticised as overly narrow in their coverage, subject to questions over the direction of causation and representative of the *de jure* situation rather than the more important *de facto* situation on the ground. Nonetheless, the following Figure shows a positive correlation between the Doing Business rank and income. However, it also shows that most ASEAN economies and India appear to have lower incomes than might be expected given the ease of doing business – perhaps reflecting a difference between reality and the metric or potential upside for income formation.

¹ See also [Asian Economic Perspectives – ASEAN: Linkages and Liberalisation](#) (22 May 2012)

Figure 10: Ease of Doing Business positively correlated with income



The fall-back – stimulus

Productivity enhancing reform is great if it can be achieved. However, if reform looks like it will take too long or is too difficult, governments will be tempted to support the economy by direct outlays or monetary stimulus.

The ability to reflate the economy depends on the space available to ease monetary policy or adopt an expansionary stance using either the fiscal balance sheet of the government or government linked bodies like SoE's.

For most of ASEAN, the case for easing monetary policy is limited by low domestic rates combined with the potential for higher Fed policy rates and the associated pressure on foreign exchange rates. India and, to a lesser extent, Indonesia are possible exceptions if inflation turns out as we expect, widening the real interest rate gap with the US (Figures 13 and 14).

Figure 11: Upside pressure on money market rates

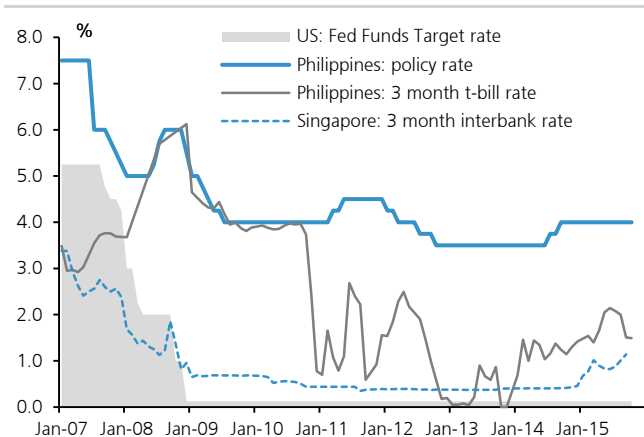


Figure 12: Little room to cut rates

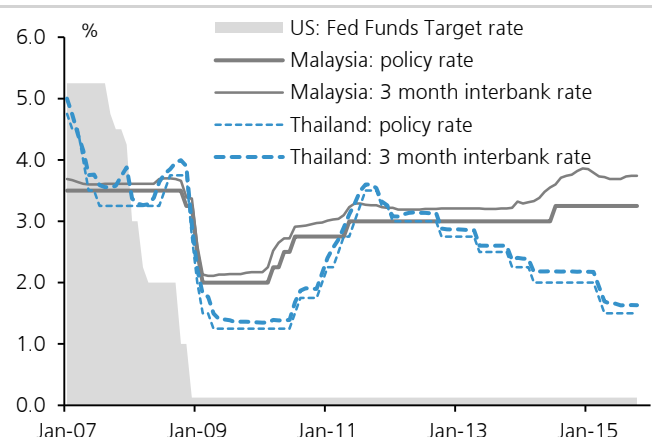
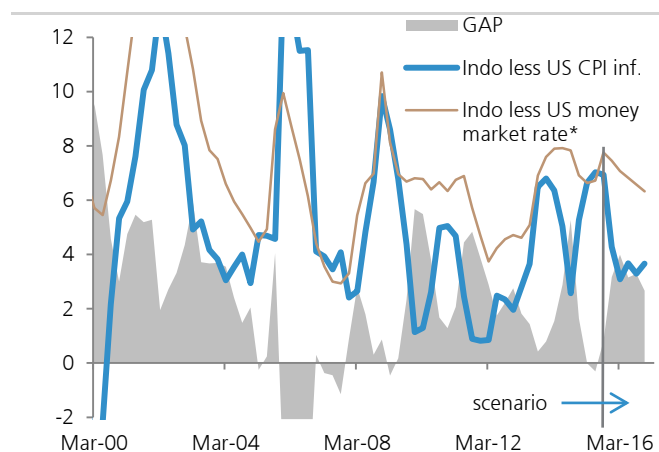
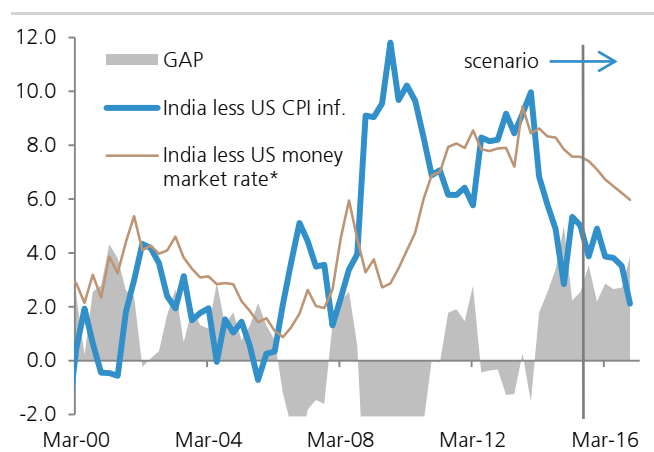


Figure 13: Real rate gap implies room to cut



Source: UBS * holding Indonesian money market rate constant

Figure 14: Real rate gap implies room to cut

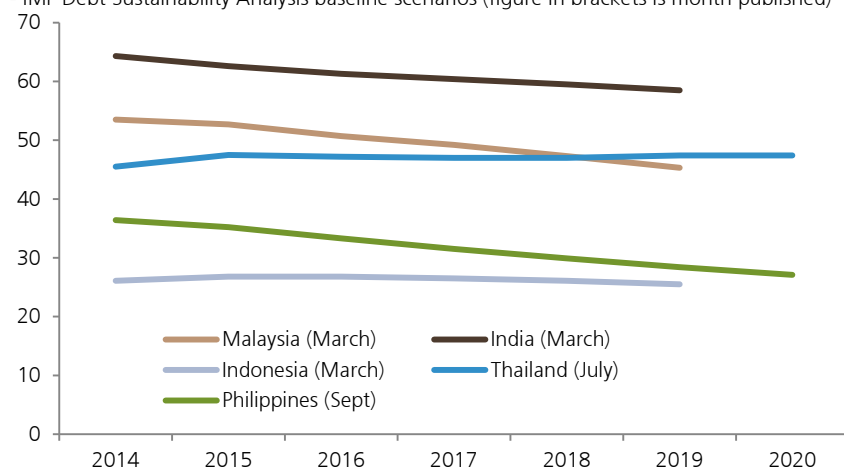


Source: UBS * holding Indian money market rate constant

Fiscal policy can be constrained by the consequences of increased deficits on the level of government debt to GDP. Figure 15 shows the IMF's baseline scenario for its debt sustainability analysis – consistent with government policy plans. Broadly stable or downward sloping debt to GDP trajectories in coming years suggest, prima facie, room to ease fiscal policy temporarily – although the relatively high level of debt to GDP in India limits the room for manoeuvre in that economy.

Figure 15: Government debt to GDP trajectories under latest IMF Debt Sustainability Analysis

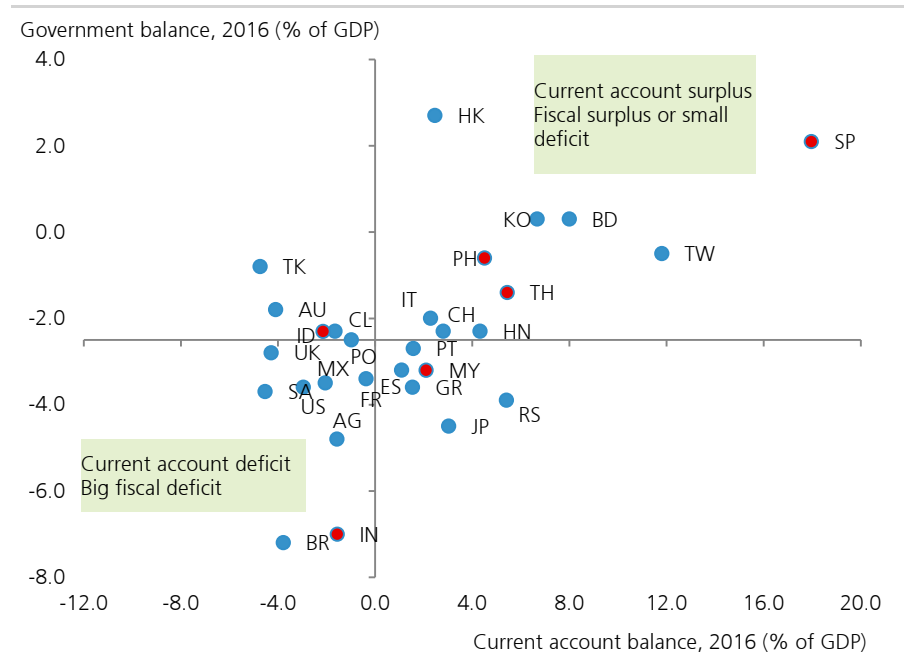
General government debt to GDP
- IMF Debt Sustainability Analysis baseline scenarios (figure in brackets is month published)



Source: IMF projections

However, fiscal stimulus, in the sense of increased government borrowing for the purpose of supporting consumption or investment, is likely to be effective only where the funds borrowed would not i) have otherwise been used domestically by the private sector or ii) result in a concerning increase in external borrowing. There is more room for fiscal policy to be effective at boosting domestic growth when the economy has a current account surplus. Figure 16 compares the IMF's forecast of the general government fiscal (revenues less spending) balance in 2016 to the IMF projection of the current account balance (the balance of spending and income in the economy). The data suggests fiscal stimulus is more likely to be successful in Thailand, Philippines and Singapore and is constrained in India and Indonesia. Malaysia has some room on this metric, but not much.

Figure 16: Fiscal balance vs. external constraint

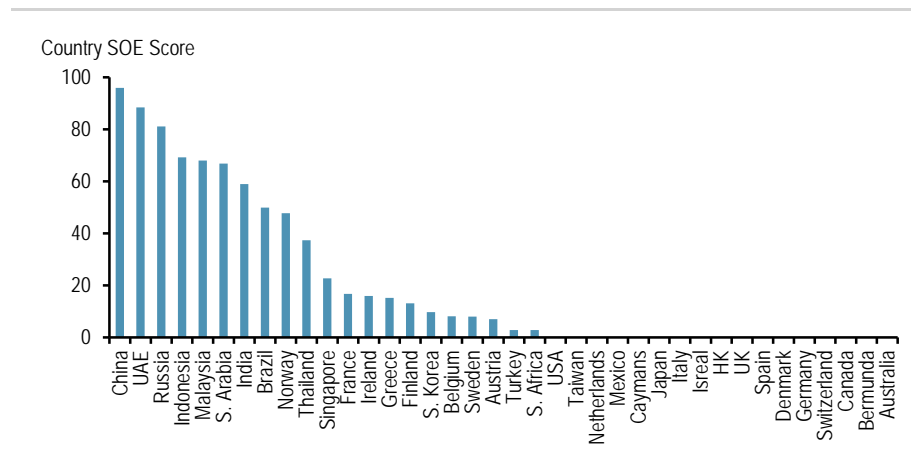


Source: IMF projections

Pressure on SoE's

In the light of constrained fiscal and monetary policy it is possible that governments might move to support the economy through other levers. State owned Enterprises are one such prominent lever in Asia. Figure 17 shows the weight of SoEs in Asian economies is typically far higher than in Western Economies.

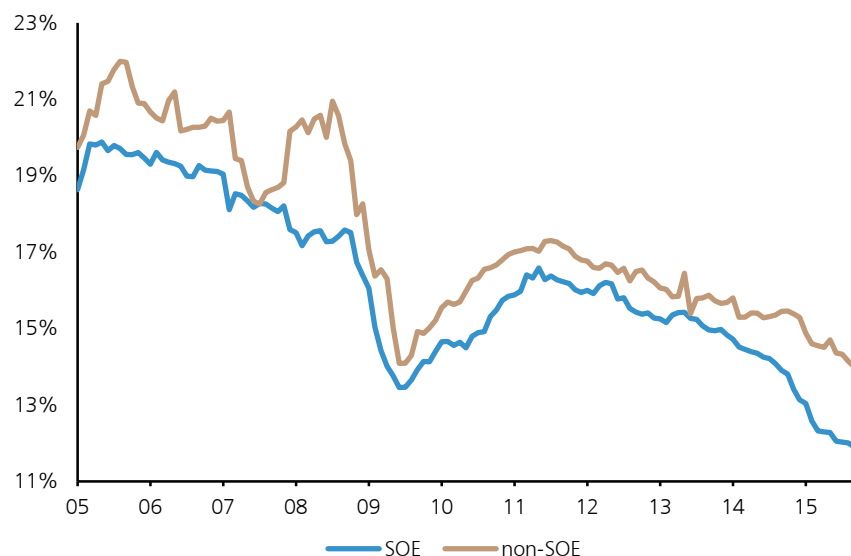
Figure 17: Weight of SoE's in economy



Source: Kowalski, P. et al. (2013), "State-Owned Enterprises: Trade Effects and Policy Implications", OECD
 Note: Country SOE Score (CSS) is an equally weighted average of SOE shares of sales, assets and market values among a country's top ten companies. The CSS thus gives an estimate of significance of state ownership amid a country's largest business entities. It ranges from 0 (no state ownership) to 100 (all sales, assets and market value of country's ten largest companies are accounted for by SOEs).

The danger of 'national service' for State owned Enterprises is that their economic efficiency is impaired. The following Figure shows the meaningful underperformance of Return on Equity of ASEAN and Indian listed State owned Enterprises compared to non-SoEs. State owned Enterprises do not have to be inefficient, but if they are forced by their owner (the government) to follow other motives than profit there is a good chance that more national resources will be consumed for less output than would otherwise be the case – although other social goals may be achieved.

Figure 18: Return on Equity for SoE's and non-SoE's in ASEAN and India



Source: UBS Note: Chart shows data for MSCI GEM countries only (i.e. ex-Singapore). Definition of SoE as per UBS methodology adopted by Global Emerging Markets Strategist Geoff Dennis

Examples of such outcomes include the limited tariff pass through allowed for Tenaga in Malaysia – although this might be changing at the margin. See also [Tenaga Nasional: Another step closer to a resolution](#) (19 Oct 2015). Meanwhile, in India the government has been leaning on SoEs to invest more; see also [India Market Strategy – Budget a positive for medium-term; growth disappointment near-term likely](#) (2 Mar 2015). In Indonesia, the social housing program is to be supported by certain banks; see also [Bank Tabungan Negara: Upgrade to buy](#) (19 May 2015) and state cement company prices were cut to support infrastructure spending [Indonesia Cement – Lack of pricing discipline, remain negative](#) (16 February 2015)

Public debtopia

Unfortunately, the pressure for ASEAN and Indian governments to support growth through easy monetary policy or public sector balance sheets (sovereigns and SoE's) could have implications for national credit worthiness and exchange rates.

In fact, governments do not even have to run wider fiscal deficits for public balance sheets (public debt to GDP) to deteriorate. To be sure, baseline IMF debt sustainability projections show broadly stable or improving government debt to GDP ratios in coming years (Figure 15). However, the same framework also shows how disappointing (nominal) growth, higher interest rates and weaker currencies – even without an increase in government deficits – can lead to a higher debt profile. The debt sustainability framework also shows how other outlays – such as those related to the realisation of contingent liabilities can impact public debt to GDP.

Debt sustainability framework:

$$d_t = \frac{(1 + i_t^w + a_{t-1}\varepsilon_t(1 + i_t^f))}{(1 + gn_t)} d_{t-1} - pb_t + ot_t$$

Where:

d_t	government debt to GDP in year t
i_t^w	weighted average interest rate on government debt in year t
a_t	share of foreign currency debt in year t
ε_t	depreciation of exchange rate versus USD in year t
i_t^f	foreign interest rate on government debt in year t
gn_t	nominal GDP growth in year t
pb_t	primary balance (fiscal balance less interest) to GDP in year t
ot_t	other flows (e.g. bank recapitalization) to GDP in year t

The following table presents scenarios for general government debt levels using the debt stability analysis framework based on similar assumptions to the IMF. The results highlight that significant changes in fiscal balances are not needed to generate higher debt to GDP ratios. Higher debt to GDP than would otherwise be the case can be driven by lower than expected growth (which can also hurt government fiscal balances through lower revenue and higher social spending). Likewise higher interest rates or weaker currencies can also push debt levels higher than otherwise expected.

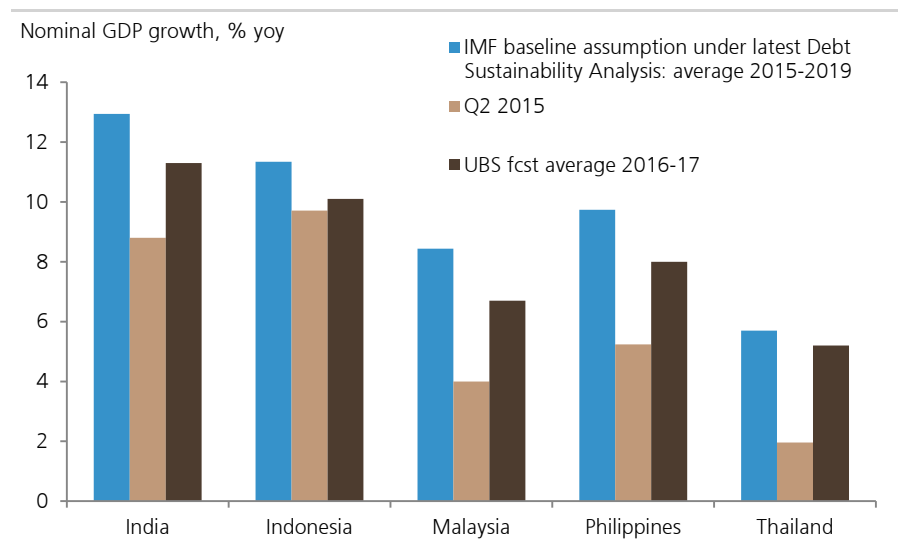
Figure 19: General government debt to GDP ratios in 2019 under selected scenarios

% GDP	Actual	BASELINE projection	less 100bps off growth	2ppt per annum depreciation of FX	plus 100bps on interest rates	less 100bps on primary balance to GDP	Cumulative: 2ppt p.a. FX depreciation, 1ppt off primary balance, 1ppts off nom growth	Change in debt versus BASELINE implied by cumulative scenario
	2014	2019	2019	2019	2019	2019	2019	
India	64.3	61.0	63.5	61.4	63.6	65.6	71.4	17%
Indonesia	26.1	23.3	24.3	24.2	24.3	27.8	31.1	34%
Malaysia	53.5	46.5	48.7	46.7	48.8	51.2	56.0	20%
Philippines	36.4	24.8	26.2	25.7	26.2	29.5	33.6	36%
Thailand	45.5	49.1	51.2	49.2	51.2	53.9	58.6	19%

Source: UBS Note: We exclude Singapore from the analysis because net asset position minimises concerns about public sector credit-worthiness. BASELINE projection uses average IMF projections for nominal growth, weighted interest rates and primary balance. Foreign interest rates based on prevailing USD yield.

One of the conclusions from UBS' Outlook 2016-17 analysis is that there is a good risk of both higher rates and poor growth relative to history. We have already highlighted the potential for increases in the Fed Funds rate to push interest rates higher in Singapore, Thailand and Philippines as part of our baseline view. It is also possible that interest rates are forced higher in Malaysia or do not fall as expected in Indonesia and India. Although the commodity prices have depressed recent growth outcomes, Figure 20 hints at the potential for downward surprises to IMF baseline assumptions. UBS forecasts for 2016-17 imply downward surprises for nominal growth across the region due to real growth and inflation outcomes.

Figure 20: IMF nominal GDP growth assumptions versus latest data



Source: UBS Estimates, IMF

This analysis does not attempt to factor in the potential costs of a regional financial dislocation – which past experience suggests could be meaningful. Luc Laeven and Fabian Valencia, in their 2012 IMF paper suggests the median fiscal costs of 147 banking crises during 1970-2012 was 6.8% of GDP, with considerable variance about that number².

How likely is public support of the financial system?

Much has been written about the typical preconditions for financial upsets. We lay out some of the most commonly cited in Figure 21 – several of which have recently been or may be present in ASEAN and India. The trouble is that these indicators typically characterise most business cycle upswings – meaning they are typical but not sufficient indicators of a crisis.

² IMF Working Paper - Systemic Banking Crises: A New Database, Luc Laeven and Fabian Valencia

Figure 21: Selected predictors of financial crisis – observed within last 2-3 years or expected shortly

	India	Indonesia	Malaysia	Philippines	Singapore	Thailand
Elevated real exchange rate	x			x	x	
Elevated real property			x		x	
Rise in domestic credit to GDP	x	x	x	x	x	x
Terms of trade deterioration		x	x			
Deteriorating current account balance			x			
World real interest rate rise	x	x	x	x	x	x

Source: UBS

In practice credit upswings and downswings happen all the time, but financial (banking or currency) crises are relatively rare – albeit quite prominent when they do occur³.

For example, in a recent note we identified 47 private non-financial credit growth peaks since 1980 across the ASEAN-5 and Indian economies⁴. Over the period covered by our credit data there were, according to prominent databases, 6 banking crises and 8 currency crises across the ASEAN-5 and Indian economies. That implies that, simplistically, around 13% of credit growth upswings have turned into banking crises in the ASEAN-5 and Indian economies. If we assume an average peak to peak credit growth cycle lasts 4-5 years (as recorded in the US as well as ASEAN and India) a similar percentage (around 13%) also holds for the frequency of banking crises per credit growth cycle globally over the same period.

Naturally, one might expect some cumulative rise in the probability of a banking crisis if a country enjoys successive credit growth accelerations. Other observations of particularly large occurrences of the signals in Figure 21 should also add to the overall probability of a financial dislocation. To the extent ASEAN-5 economies have each recorded at least two credit growth upswings in the eighteen years since the Asian Financial Crisis, the probability of a financial dislocation now is likely somewhat higher than 13%.

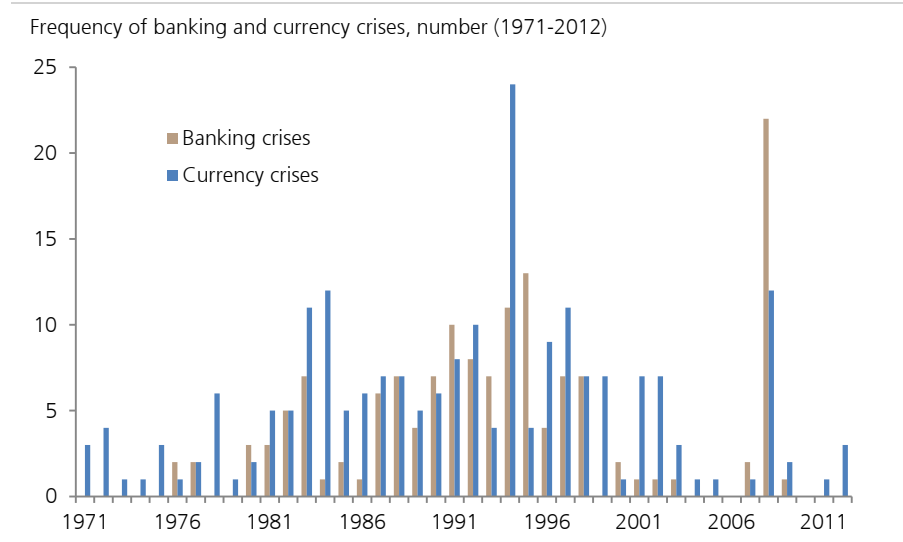
Indeed, the IMF uses an increase of private credit to GDP of 15ppts over a three year period as an indicator that emerging market governments might have to meaningfully support the private sector within its debt sustainability analysis. The same indicator for developed markets is 25ppts over three years. Over the periods where we have data, observations of the above increases of private credit to GDP predicted five of the six regional banking crises, failed to predict one and falsely signalled another seven – a positive hit rate of 42% albeit across too small a sample to draw any definitive conclusions. Thailand, Malaysia and Singapore have all experienced a rise in private credit to GDP over the above thresholds during the last upswing.

³ In an IMF Working Paper - Systemic Banking Crises: A New Database (2008), Luc Laeven and Fabian Valencia define a currency crisis as a 30% decline in the end-year value of a currency against the US dollar where the decline is also 10ppts quicker than in the previous year. Where there are multiple events meeting the definition, those within five years of an initial event are considered part of the same crisis. The same paper defines a systemic banking crisis as a country's corporate and financial sectors experiencing a large number of defaults and financial institutions and corporations face great difficulties repaying contracts on time. And where, as a result, it becomes apparent that the banking system has a large proportion of nonperforming loans and that most of its capital has been exhausted.

⁴ [APAC Economic Perspectives - ASEAN and India: Where's the next credit upturn?](#) (4 May 2015) Note: Philippine data only available from 1985, Indonesian data from 1983, Thai data from 1982

It so happens that six of the eight currency crises in the last 35 years across ASEAN and India were associated with banking crisis. That is not unusual, an IMF working paper presented data on 64 prominent banking crises globally over the period 1970-2012 showing that 55% of banking crises are associated with currency crises⁵. However, it would be wrong to conclude that currency crises – as we have defined them – usually lead to banking crises.

Figure 22: Not all currency crises lead to banking crises



Source: UBS, IMF Working Paper - Systemic Banking Crises Database: An update, Laeven and Valencia (2012)

Where data is available across 161 countries over the last 45 years (1970-2015) we count 260 currency crises: less than one every 20 years per country on average. Of these 41 (or 15%) were contemporaneous with or predated the start of a banking crisis by 1-2 years. The majority of currency crises did not trigger a banking crisis shortly afterwards. Even so, a sharp decline in a national currency probably increases the risk of a banking crisis.

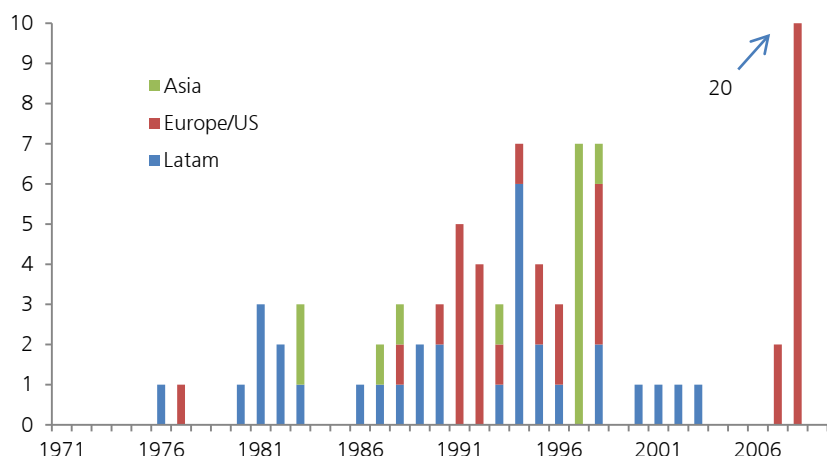
What databases of banking crises do show, however, is that there is a tendency for major financial dislocations to cluster over time. The Figure below shows the frequency of banking crises over time colour coded by region. We do not mean to suggest that just because two crises occurred in the same region they were necessarily connected. However, it is clear from the chart that there is a tendency for financial dislocations to spread within regions.

In terms of probabilities, this means that if we observe a financial dislocation within the region then our assessment of the probability of a crisis in other regional economies should also increase meaningfully. However, the frequency of regional financial dislocations we can observe is too small to draw quantitative conclusions of the increased probability of collateral damage with any certainty.

⁵ IMF Working Paper - Systemic Banking Crises: A New Database , Luc Laeven and Fabian Valencia (2012)

Figure 23: Bunched banking crises

Frequency of banking crises by region, number (1971-2012)



Source: UBS, IMF Working Paper - Systemic Banking Crises Database: An update, Laeven and Valencia (2012)

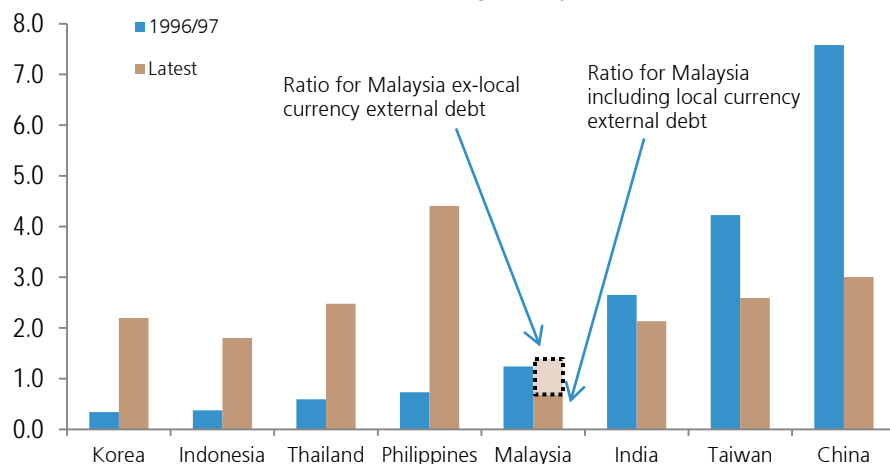
Every time is different

Of course, one should not apply historical experience blindly. The economy is not a machine. Policy makers and the rest of us react to past economic dislocations. There is an argument that the experience of the Asian Financial Crisis made regulators and bankers more cautious over the last 15 years. Certainly regulators globally have moved after the Global Financial Crisis to reduce the risk of a similar dislocation. There is a long history of investor confidence crises, but the reaction to each crisis influences the outcome in the next.

In India, capital controls including restrictions on foreign borrowing and foreign investment have long been in place in part to reduce financial vulnerabilities. In ASEAN, regulatory and other measures have been undertaken to improve financial stability. Quantifiable outcomes of these policies to guard against the external financial risks that prompted the Asian Financial Crisis include higher foreign exchange reserve levels and a bias against borrowing in foreign currency.

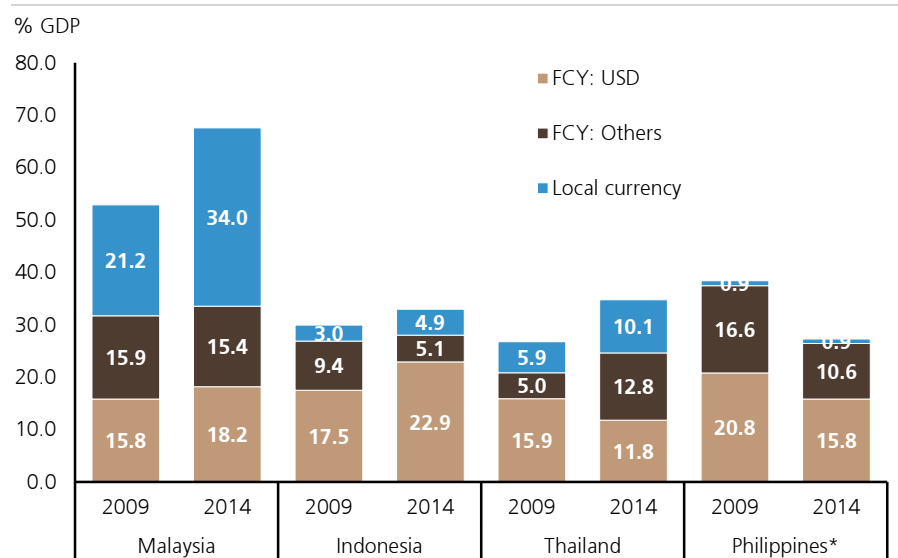
Figure 24: Better prepared: FX reserves to short-term external debt

Reserves to short-term external debt on remaining maturity basis (Times)*



Source: UBS Estimates, Haver, CEIC *Reserves adjusted for predetermined payments

Figure 25: Where external debt to GDP did rise in last credit upswing, it was mainly in local currency



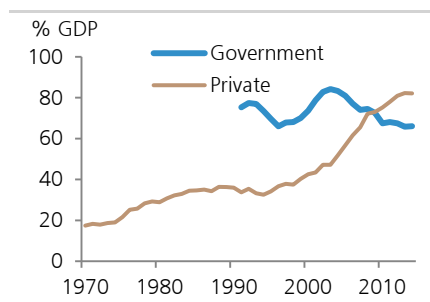
Source: UBS Estimates, Haver, IIF

*Philippines only started specifying external debt as local vs foreign currency in 2010. We have used the 2010 ratio as a proxy for 2009.

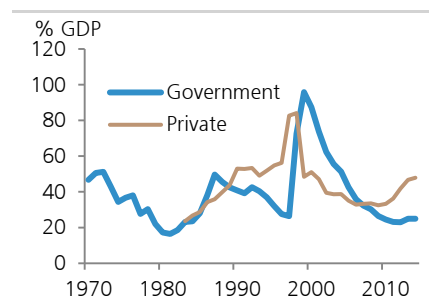
Note: We have calculated the ratios of currencies within the external debt burden by taking total external debt (consistent with BPM6 data) and multiplying it by IIF statistic D610 (% of total external debt denominated in US\$) in all cases (except Indonesia). The split for local and foreign currencies is taken from BIS data with "FCY: Others" calculated as the residual of: total - local - USD. For Indonesia the central bank provides explicit data on external debt denominated in USD and other currencies - for Indonesia this has been used instead of IIF data. Note that the BI data does not match the IIF data for Indonesia - the BI ratio (of USD external debt to total) is higher than that of the IIF data.

Subjective probabilities

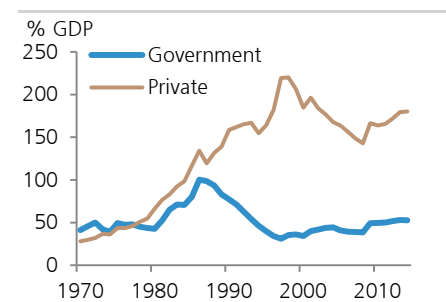
To us, the above frequency analysis means there is a meaningful risk of substantial funds from public balance sheets being put to work to help unwind some of the excesses arising from the last cycle. Figures 26-31 suggest it has happened before. Based on the above we see the case for a 20-25% chance of a financial dislocation leading to substantial financial assistance from the public to the private sector in Thailand, Singapore or Malaysia (i.e. before the next cyclical peak in credit growth). This is due to the rapid run up in private non-financial debt counter-balanced with prudential measures in this credit cycle. We also see the case for a similar probability in Indonesia, but due to the combination of domestic credit expansion and external deficit. India and the Philippines, we put at half that probability on the grounds of the lower expansion in credit, prudential measures and, in India's case, the balance sheet repair of prior years. This said, a financial dislocation in one economy would greatly increase the chance of one in another regional economy around the same time.

Figure 26: Indian debt

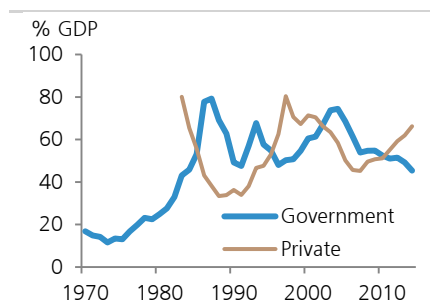
Source: UBS Estimates, IMF

Figure 27: Indonesian debt

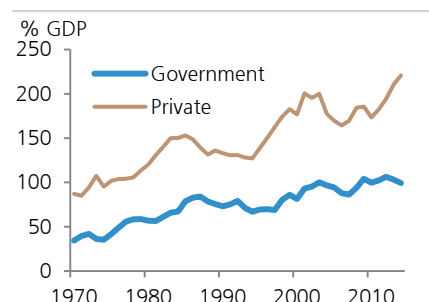
Source: UBS Estimates, IMF

Figure 28: Malaysian debt

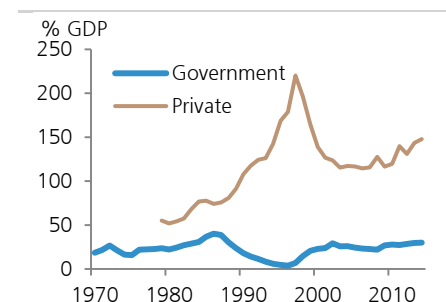
Source: UBS Estimates, IMF

Figure 29: Philippine debt

Source: UBS Estimates, IMF

Figure 30: Singaporean debt

Source: UBS Estimates, IMF

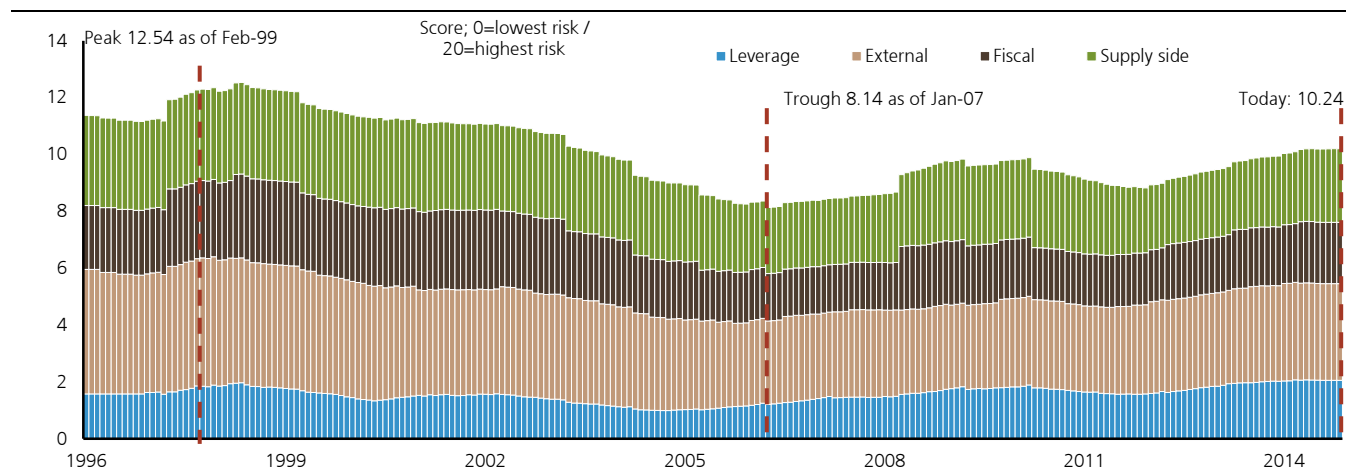
Figure 31: Thai debtSource: UBS Estimates, IMF⁶

Part of a global trend in EM creditworthiness

In [Global Macro Strategy: EM enters a new, dangerous phase](#), Global Head of EM Cross Asset Strategy, Bhanu Baweja, highlighted the potential for slow growth and maturing private credit cycles to weigh on sovereign balance sheets across EM. The discussion in this note supports that view for ASEAN and India. The implication is that difficult growth and tougher financing conditions could lead to deteriorating sovereign balance sheets either through policy efforts or the side effects of Debtopia we have written about in recent years (i.e. weak growth in itself).

⁶ Charts include data from Paolo Mauro, Rafael Romeu, Ariel Binder and Asad Zaman, 2013, "A Modern History of Fiscal Prudence and Profligacy," IMF Working Paper No. 13/5, International Monetary Fund, Washington, DC.

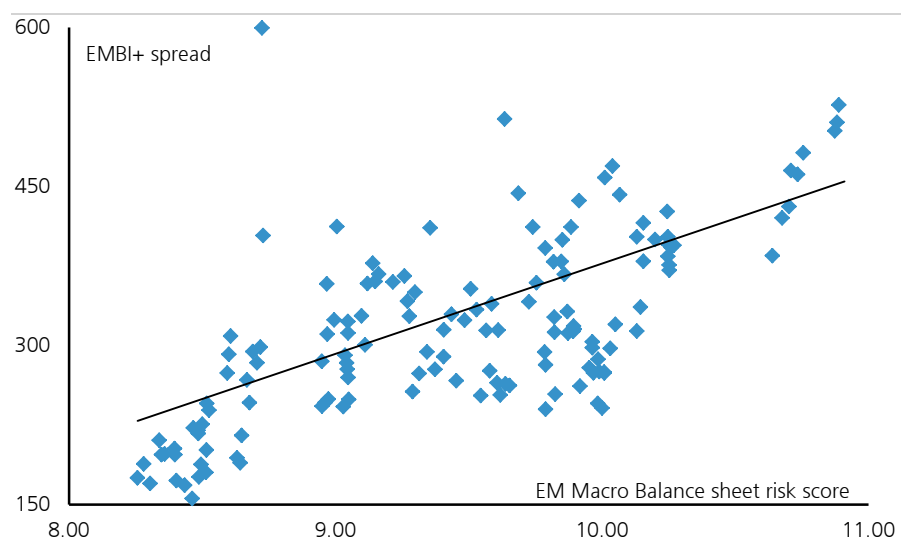
Figure 32: EM macro balance sheet risk score broken down by components: Back to the Future!⁷



Source: Haver, UBS. The EM aggregate presented here is EMBI+ weighted. MSCI EM and GBI EM weighed balance sheet scores are available too.

That, Bhanu highlights, could lead to negative implications for credit ratings and wider spreads for EM in general.

Figure 33: UBS EM macro balance sheet score vs. EMBI spread



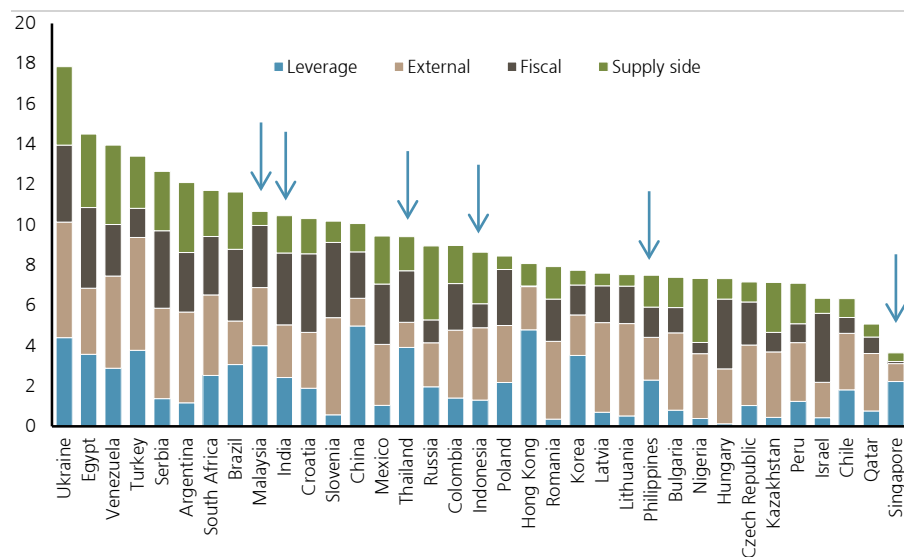
Source: Haver, Bloomberg, Datastream, UBS The EM aggregate is EMBI+ weighted

The good news is that ASEAN and India do not stand out on our Global Emerging Market balance sheet score as having particularly stretched 'balance sheet scores'. Philippines and Singapore in particular look relatively strong. Moreover, ASEAN

⁷ We measure sovereign or macro balance sheet (MBS) risk in an EM economy by taking a weighted average of 4 vulnerability indices: a) leverage (25% weight), b) external sector (35%), c) fiscal (20%), d) supply side / institutional factors (20%). These 4 categories are, in turn, divided into 12 sub categories. 12 risk variables we score are Credit to GDP level (deviation from per capita income forecasted level), change in credit to GDP, current account, external debt to GDP, short term external debt to reserves, FDI, net international investment assets, the proportion of external debt denominated in foreign currencies, fiscal balance, public debt, WB governance indicators and a proxy for the slope of the Phillips curve.

and India may not stand out in terms of the potential for balance sheet deterioration compared to, say Latin America, where growth momentum is far weaker than in ASEAN and India relative to historical trend. Nonetheless, ASEAN and India may not be immune from worse than expected public balance sheet outcomes due to weaker than expected growth.

Figure 34: UBS EM macro balance sheet scores for ASEAN and India in context



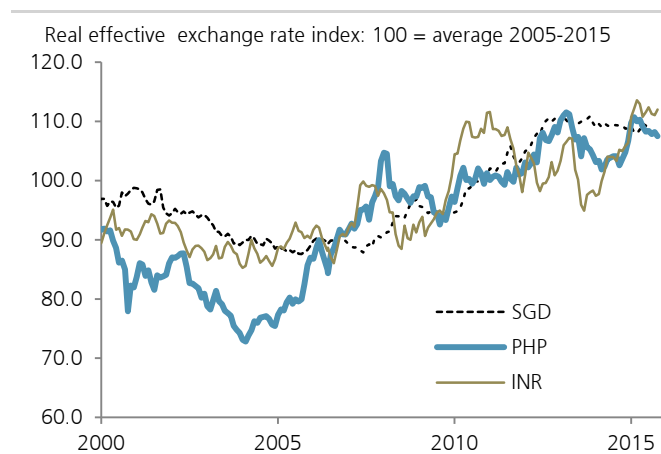
Source: UBS

Have currencies adjusted enough?

What does purchasing power parity tell us?

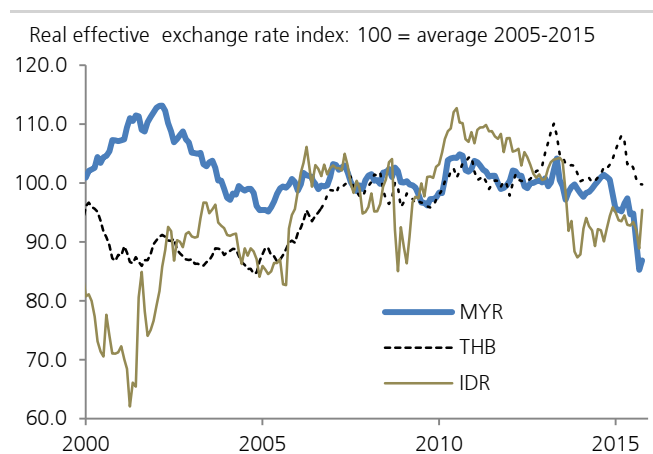
The above dynamics coupled with reasonable US growth and higher Fed rates will not be helpful for ASEAN and Indian exchange rates with the US dollar. But have price levels already adjusted enough due to ASEAN and Indian currency weakness? The following chart shows real effective exchange rates across the region – a measure of an economy's price competitiveness. Only Malaysia looks clearly competitive relative to history.

Figure 35: INR, SGD, PHP real exchange rate still elevated



Source: UBS Estimates, BIS, Haver

Figure 36: Only MYR looks clearly weak relative to history



Source: UBS Estimates, BIS, Haver

An alternative and perhaps more intuitive approach is to look directly at price levels.

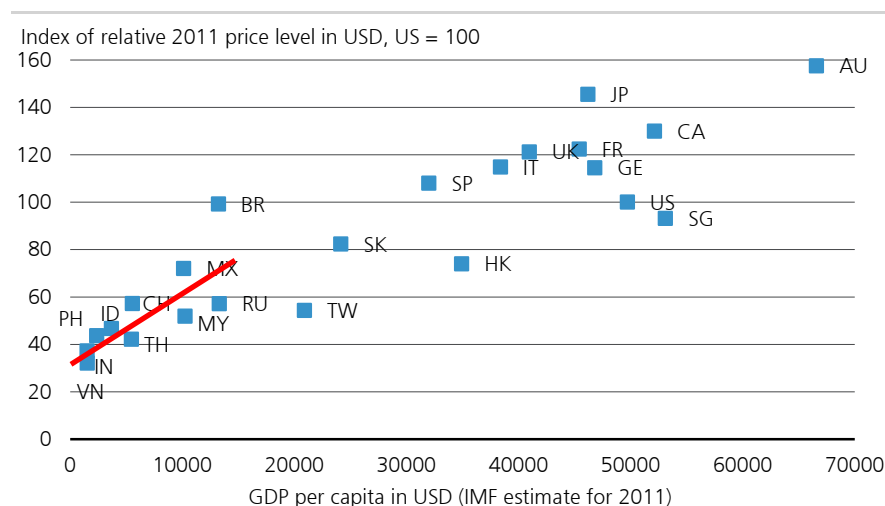
The following Figures show how ASEAN currencies have moved relative to global peers since the peak of the regional credit and global commodity boom in 2011. Both Figures use price level data from the OECD 2011 International Comparison Program combined with CPI and exchange rate data to calculate price levels relative to the US in 2011 and 2015.

This data is plotted against GDP per capita because although before the addition of tariffs, subsidies, and trade costs, the prices of traded products are broadly determined globally by the law of one price, the prices of nontraded products are determined by local circumstances, in particular by wages and salaries, which are generally higher in high-income economies. Hence to get a sense of whether price levels are unduly elevated or depressed it is necessary to put international price comparisons in the context of income levels.

The data suggests the price of consumer goods and services has fallen in Malaysia especially and ASEAN generally against China and the US. But much of Europe and other emerging markets have also gained in competitiveness relative to the US. This helps explain why, despite declines in ASEAN and Indian currencies against the US dollar, there has not been much change in real exchange rates.

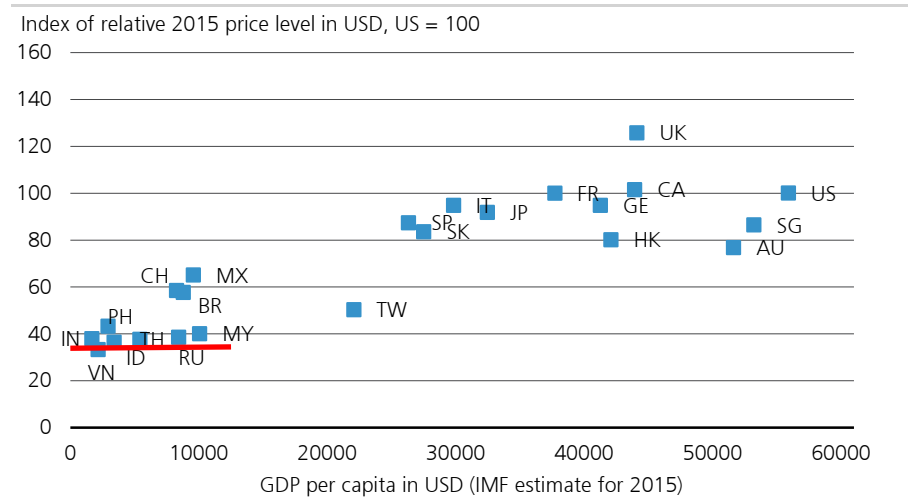
What the below data does suggest, however, is that the price levels in Malaysia look relatively low while those in India and Philippines look high given relative income levels. That suggests relatively less depreciation and disinflation pressure for Malaysia and relatively more in Philippines and Indonesia. Interestingly, relative to its income level, Singapore's price level does not look particularly high – potentially limiting the disinflation pressure in that economy.

Figure 37: Before the USD rally - price levels and income in 2011



Source: UBS, World Bank, Haver

Figure 38: Price levels and income in October 2015 – does the similarity across ASEAN and India make sense?



Source: UBS, World Bank, Haver

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12-Month Rating	Definition	Coverage ¹	IB Services ²
Buy	FSR is > 6% above the MRA.	49%	33%
Neutral	FSR is between -6% and 6% of the MRA.	40%	26%
Sell	FSR is > 6% below the MRA.	12%	18%
Short-Term Rating	Definition	Coverage ³	IB Services ⁴
Buy	Stock price expected to rise within three months from the time the rating was assigned because of a specific catalyst or event.	less than 1%	less than 1%
Sell	Stock price expected to fall within three months from the time the rating was assigned because of a specific catalyst or event.	less than 1%	less than 1%

Source: UBS. Rating allocations are as of 30 September 2015.

1:Percentage of companies under coverage globally within the 12-month rating category. 2:Percentage of companies within the 12-month rating category for which investment banking (IB) services were provided within the past 12 months.

3:Percentage of companies under coverage globally within the Short-Term rating category. 4:Percentage of companies within the Short-Term rating category for which investment banking (IB) services were provided within the past 12 months.

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	UBS Terminology	Time Horizon	Definition
Issuer Ratings			
Credit Rating	AAA, AA, A, BBB, BB, B, CCC, CC, C (+/-)	Up to 12 months	UBS' assessment of a company's creditworthiness
Outlook	Positive; Stable; Negative	Up to 6 months	UBS' expected trend in a company's creditworthiness
Security Recommendations			
Bond Recommendation	Outperform; Marketperform; Underperform	Up to 3 months	A corporate bond's expected relative performance versus a defined reference
CDS Recommendation	Buy Protection; Sell Protection	Up to 3 months	Recommendation to hedge a company's creditworthiness

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Source: UBS

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Company Name	Reuters	12-month rating	Short-term rating	Price	Price date
Bank Tabungan Negara	BBTN.JK	Buy	N/A	Rp1,165	05 Nov 2015

Source: UBS. All prices as of local market close.

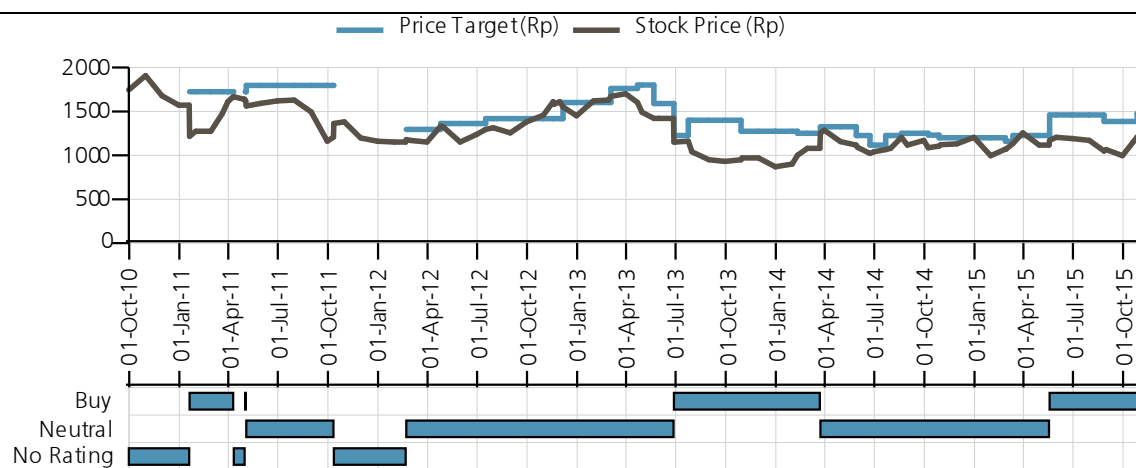
Ratings in this table are the most current published ratings prior to this report. They may be more recent than the stock pricing date

Issuer Name	Credit Rating	Outlook
India (Republic Of)	-	-
Indonesia (Republic of)	-	-
Malaysia	-	-
Philippines (Republic of)	-	-
Singapore	-	-
Thailand (Kingdom of)	-	-

Source: UBS. Ratings in this table are the most current published ratings prior to this report.

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Bank Tabungan Negara (Rp)



Source: UBS; as of 05 Nov 2015

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