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Asia Vulnerability Monitor: Identifying the overstretched

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EM Asia's growth momentum has broadly trended higher, led by stronger-than-expected exports. Having said that, however, some markets look overstretched, benefiting from a rapid rise in debt. In this report, we identify the areas of potential correction.

We believe the Hong Kong Monetary Authority is deliberately draining liquidity in an attempt to manage a gradual adjustment of interest rates. In the context of higher rates, its housing market remains vulnerable to a sharp correction.

Although Singapore has already witnessed a significant correction in its property prices, higher rates suggest sustained weakness in the sector ahead, especially in the context of challenging demographics.

Malaysia's households are heavily indebted, posing risks to our BNM rate hike call, especially given muted inflation and the election next year. By our estimates, MYR looks significantly undervalued.

While its recovery from policy shocks may be slower than expected, India's asset prices look stretched.

China is vulnerable, largely due to its high leverage. While it is unlikely to come unhinged in the near term, China's high indebtedness poses a risk to its long-term growth and financial stability, perhaps suggesting a tolerance of higher inflation and a weaker CNY, which remains overvalued in our metrics.

Despite the ongoing risks from North Korea, South Korea likely to enjoy above 3% growth in Q3 due to strong exports. However, sustained rapid growth in household borrowing requires not only tighter regulations, but also modest normalization of BoK policy rates.

Taiwan's risks remain contained, with sustained growth of above 2%, low inflation and fairly-valued asset markets

The Philippines continues to enjoy above-potential growth, supported by double-digit expansion in credit, while a weak PHP poses upside risks to our rates call.

We see Thailand's growth momentum strengthening further as we enter 2H. BoT is likely to remain firm on not cutting rates further to ensure financial stability, although its PE ratio looks relatively high, as does Indonesia's.

Indonesia is the least vulnerable Asian economy in our scorecard. Its growth remains stable at around its potential, but remarkably weak retail sales growth suggests that all may not be as rosy as it appears. While further rate cuts might be called for, this would pose risks to the IDR.

From the most to least likely

- Hong Kong*
- Singapore
- Malaysia
- India
- China
- South Korea
- Taiwan
- Philippines
- Thailand
- Indonesia

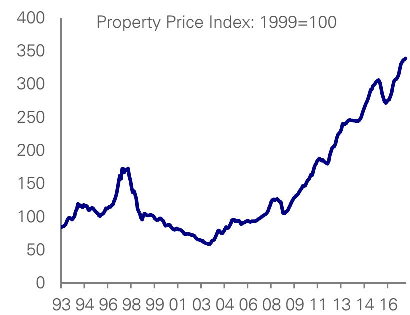
** Please refer to the note on pg.2*
Source: Deutsche Bank

Asia Vulnerability Monitor[1]

Watch the overstretched asset markets as rates rise

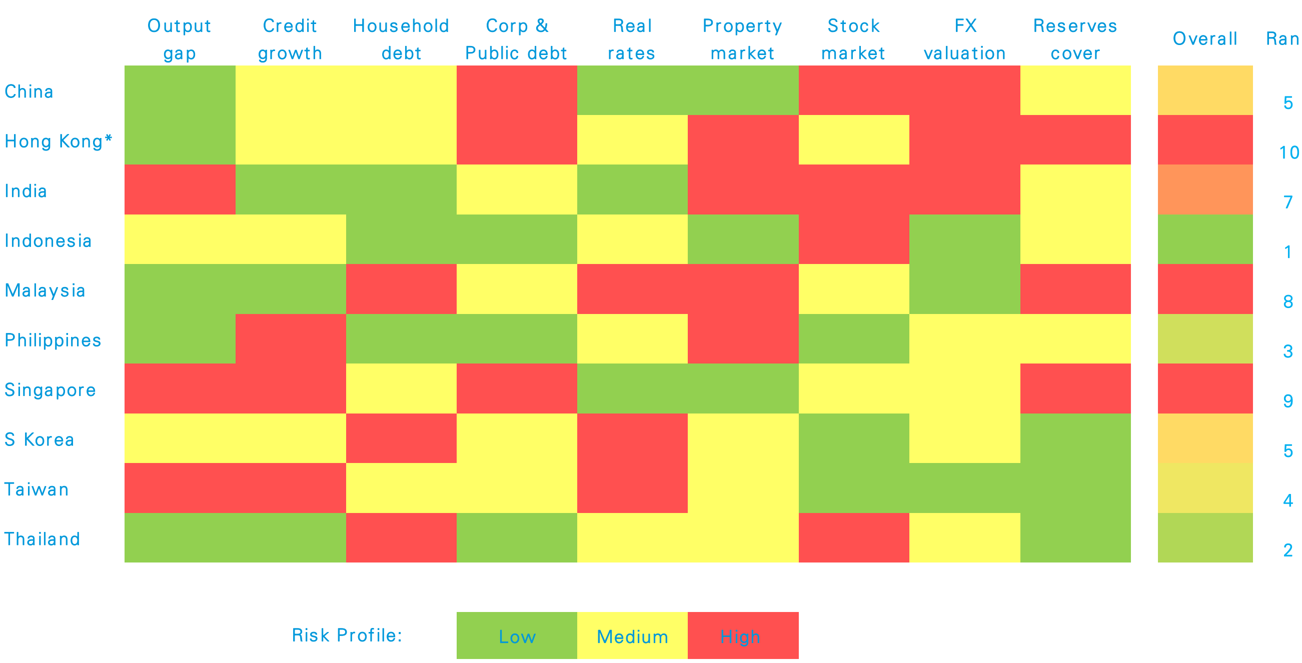
- The rapid rise in debt since the GFC remains a source of concern for the region as a whole, especially for China and Hong Kong, where it is rising at double-digit rates. In the context of our US team's forecast of 100bp of rate hikes by the Fed by end-2018, Hong Kong's overstretched property market faces perhaps the greatest downside risk in the region, given the leverage to short-term rates.[2]
- For South Korea, the problem is not property prices, but its highly indebted households, as real rates remain too low. Amid above potential growth, we see the sustained rise in household debt posing upside risk to our BoK policy rate call (of two 25bps rate hikes over next 12 months).
- As far as FX valuations are concerned, CNY looks the most overvalued in EM Asia, while MYR appears to be the most undervalued. A sharper-than-expected rise in FX volatility poses risks to our BNM rate hike call and thereby Malaysia's overstretched households and property market.

HK Property prices continue to surge



Sources: CEIC and Deutsche Bank

A heat-map of vulnerability



Note: A heat map provides a useful snapshot of various risks. The assessment is done on a relative basis with respect to an economy's own history and its Asian peers. Indicators span growth (output gap), credit, debt (household, corporate, and public), interest rates, external sector (FX valuation, reserves cover of external funding needs) and asset market (PE ratio).
The rankings 1 through 10 correspond to lowest to highest risk.
** Hong Kong's own indebtedness would be sharply lower by 100% of GDP, if we were to remove loans to non-residents.*
Source: CEIC, Haver Analytics, Bloomberg Finance LP, Deutsche Bank

[1] We have changed our methodology since our last publication of this report. We have replaced our estimate of growth momentum with output gap, as the former does not take into account structural changes in an economy. We also opted to use FX reserves cover of gross external funding needs separately, instead of looking at external account and FX reserves cover of imports. We have included equity and real estate market valuations in our metrics.

[2] Please see DB's report, "Hong Kong Property: Demographically challenged" published on 7 June 2017, by Jason Ching and Jeffrey Gao. Refer to page 10 for discussion on potential impact of higher US rates.

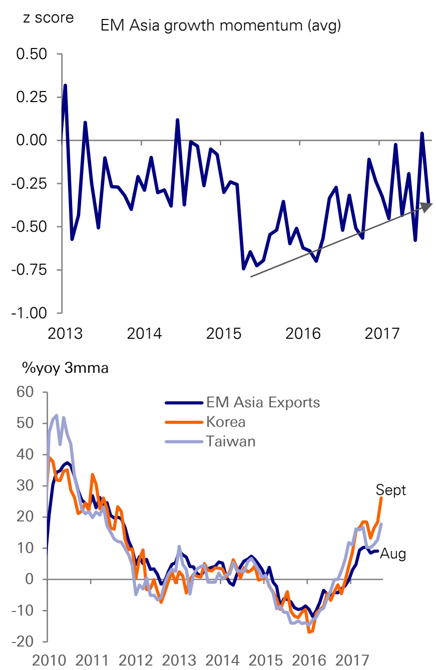
Details

Growth momentum

EM Asia has enjoyed a surge in exports in Q3, supporting stronger growth momentum and posing upside risks to our growth outlook of 6% this year. We may not be getting the export slowdown that we expected for 2H. Instead, we could see relatively stable, if not higher growth in 2H.

Vietnam and Singapore led the region in upside surprises in Q3, reporting stronger-than-expected growth of 7.5%yoy and 4.6%, respectively, vs. 6.5% and 2.9% in Q2. Their growth was led by manufacturing, reflecting strong exports. At the same time, China's growth hardly slowed in Q3, at 6.8% vs. 6.9% in Q2, amid stable export growth, stronger consumption and stronger services growth. Moreover, the data released thus far suggests that we may not see the slowdown we have been expecting in Hong Kong, Malaysia and Taiwan, while South Korea's growth could accelerate to above 3%. In contrast, India's growth may not rebound as quickly as we were expecting after the policy shocks that reported the largest negative output gap in the region, while the growth outlook in Indonesia looks remarkably stable, at around 5%.

EM Asia's growth trends higher, as exports surge

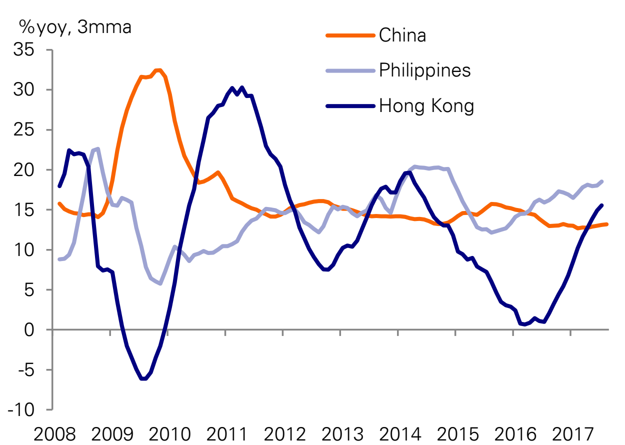


Note: August is our latest MMI estimate and, therefore, fails to reflect the surge in sharp rebound in exports in September. Please refer to appendix for technical explanation.
Sources: CEIC, Deutsche Bank

Credit cycle

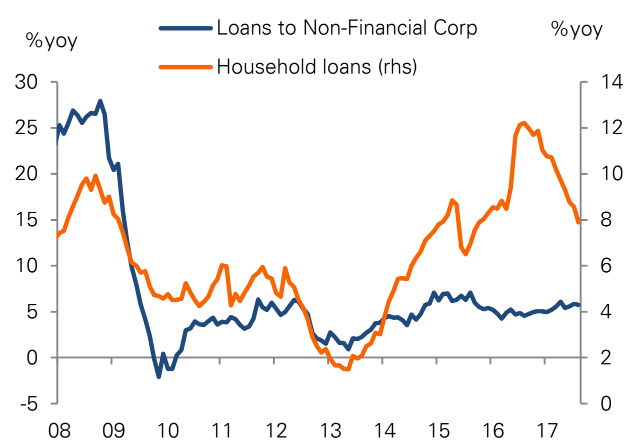
EM Asia's credit cycle has turned, either bottoming or trending higher, with the exception of India, where NPA resolution and higher real rates weigh. Despite macro-prudential measures, China, Hong Kong and the Philippines have posted double-digit growth in credit. Meanwhile, in the context of already high leverage, the sustained rise in household loans has prompted tighter financial oversight in South Korea. (Please refer to our [October Asia Economics Monthly] for details.) Although less leveraged than China, South Korea's future growth remains hindered by its indebtedness, especially that of its households. Malaysia's heavily indebted households also remain a source of risk for its long-term growth and policy rate outlook. While the relatively low indebtedness of the Philippines suggests there may be room for credit to continue expanding at a rapid pace, we underline the importance of prudential regulations to ensure sustainable growth.

Rapid credit growth in CH, HK, and PH



Sources: CEIC and Deutsche Bank

South Korea's loan growth led by households



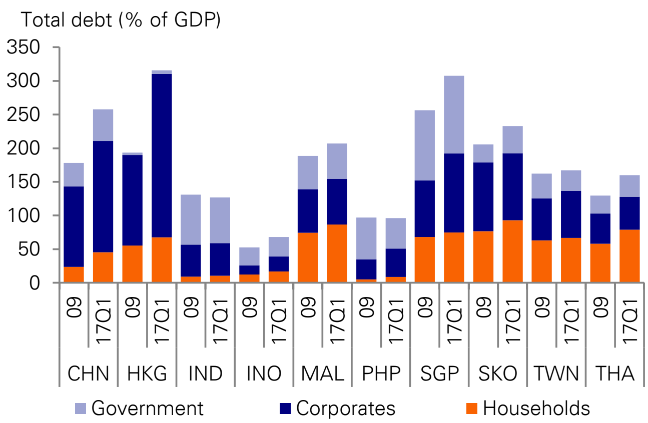
Sources: CEIC and Deutsche Bank

Real rates

Lower and/or negative real rates have supported the rebound in credit growth, with the exception of India. Our Taylor rule model suggests that the gap between suggested, appropriate policy rates and actual rates is widest for the Philippines and South Korea, followed by China. However, we expect the latter to follow its reform agenda to guide weaker growth in designated sectors

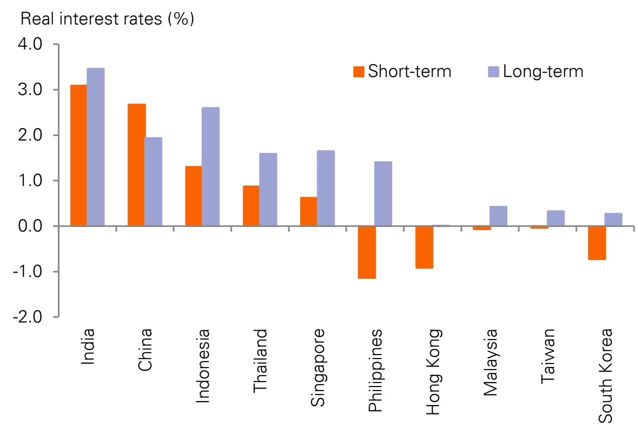
rather than hiking rates, which could have a general impact on the entire economy. In contrast, risks to BoK and BSP rates are tilted to the upside (rate hikes could come earlier than expected).

EM Asia more leveraged than before



Note: Hong Kong's indebtedness would be sharply lower, by 100% of GDP, if we were to remove loans to non-residents.
Sources: BIS, CEIC, Haver Analytics, and Deutsche Bank

Real rates are too low in some places

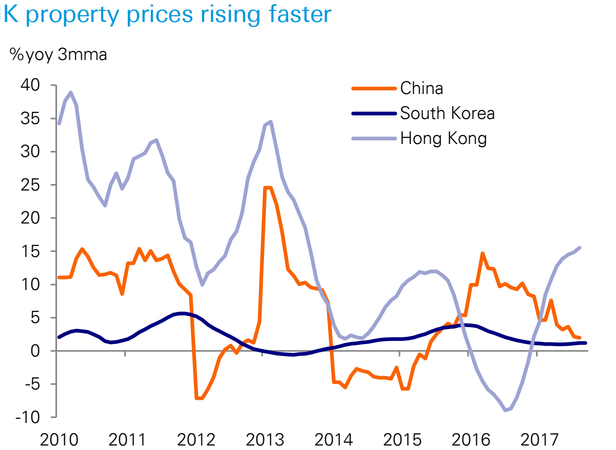


Note: Short-term real rates are computed as the difference between three-month T-bill rates and the corresponding year's (2017) average inflation forecast. Long-term real rates are the difference between 10-year bond yields and the corresponding year's (2017) average inflation forecast.
Sources: CEIC and Deutsche Bank

Property markets

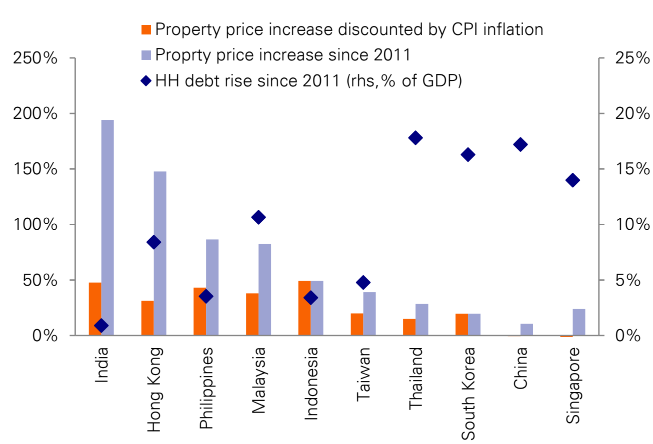
In the context of our US team's forecast of 100bp of rate hikes by the Fed to 2.125% by end-2018, Hong Kong property faces perhaps the greatest downside risk in the region, given the leverage to short-term rates. Hong Kong and India have reported the strongest rises in residential property prices in EM Asia since 2011, in nominal terms. Discounted by inflation and GDP, India, Hong Kong, Malaysia and the Philippines have seen the most rise in housing prices. For South Korea, the problem is not property prices, but the high indebtedness of households and its impact on medium- to long-term growth. We expect the Bank of Korea (BoK) to be the first to hike in the region, with higher rates limiting housing price inflation ahead.

HK property prices rising faster



Source: CEIC, Haver Analytics, and Deutsche Bank.

Property prices surged in IN, HK, PH and MA

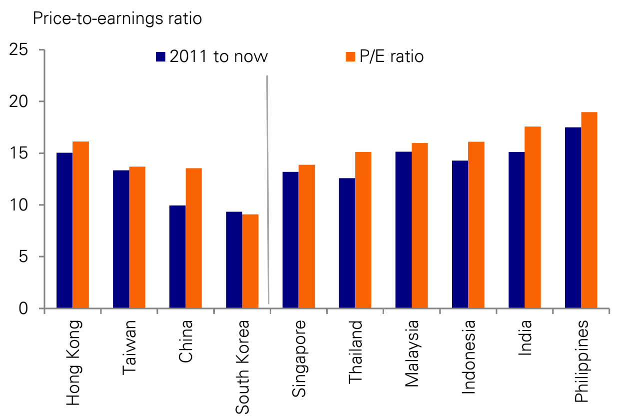


Note: Malaysia's data as of 2016Q4
Source: BIS, CEIC, Haver Analytics, and Deutsche Bank.

Equity markets

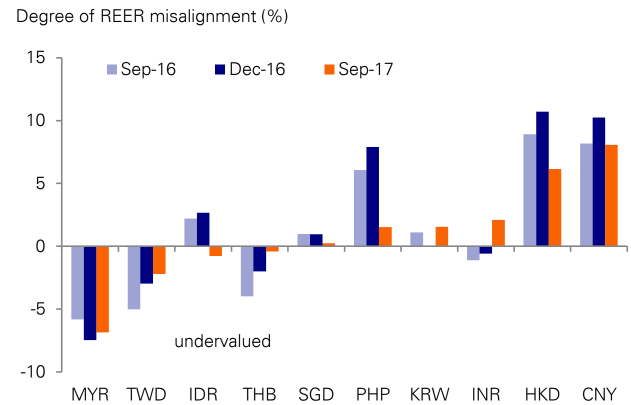
In historical and relative terms, with the exception of South Korea, PE ratios of all markets in EM Asia have risen. China has seen the largest rise in its PE ratio, thanks largely to its tech giants, followed by Thailand, India and Indonesia. Relatively speaking, the ASEAN markets look stretched, compared to their NE Asian counterparts.

ASEAN equity markets look stretched



Note: Please refer to appendix for technical explanation.
Source: Bloomberg and Deutsche Bank

CNY and HKG look most overvalued

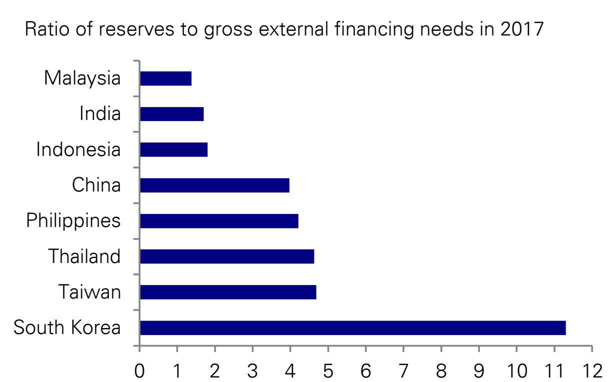


Note: Please refer to appendix for technical explanation
Source: CEIC, Haver Analytics, and Deutsche Bank

FX valuation

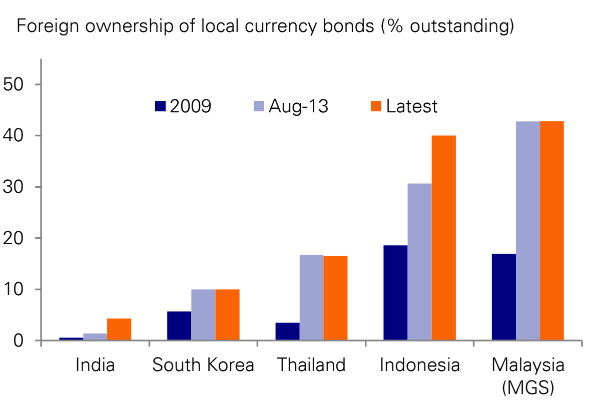
As far as FX valuations are concerned, CNY and HKG look the most overvalued, while MYR looks the most undervalued in EM Asia. Given the relatively high foreign ownership of its local bonds/bills, Malaysia has taken preemptive measures to reduce risks to its local markets and MYR. Indonesia also has a high foreign debt ownership of about 40%, followed by about 16% for Thailand. MYR and IDR are exposed to sudden shifts in foreign interest in their local rates, with INR far less exposed; hence, our caution on further rate cuts by BI. Meanwhile, a sharper-than-expected rise in FX volatility would translate into an earlier-than-expected rate hike by BNM.

FX reserves low for MYR, INR and IDR



Note: Please refer to the appendix for a technical explanation
Source: CEIC, Haver Analytics, and Deutsche Bank

Large foreign interests in local bonds



Note: Please refer to the appendix for a technical explanation
Source: CEIC, Haver Analytics, and Deutsche Bank

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Appendix A

The Asia Vulnerability Monitor aims to examine in detail risk metrics for EM Asian economies. It covers at least 15 economic and financial indicators across 10 economies, culminating in a composite indicator of vulnerability assessment in the region. The assessment is made on a relative basis, with respect to an economy's own history and its Asian peers. Indicators span growth (output gap and z-score of high frequency indicators), credit, external sector (FX valuation, reserves cover of external funding needs), interest rates, debt (household, corporate, and public) and asset markets (property and equity). A heat map provides a useful snapshot of various risks. We take a simple average of the rankings across these indicators to come up with an overall country ranking.

The objective of this exercise is not to predict a crisis, but rather to assess the underlying risk of disorderly adjustment unless remedial measures are carried out expeditiously. Identifying the economy with the highest degree of exchange rate misalignment or most expensive equity market is done not to make a call that a currency crisis or stock market crash is on the horizon, but instead, our goal is to identify areas of stress or in need of adjustment. Misalignment and stress points can fester for years if global macro conditions remain benign, as has been the case repeatedly in recent financial market history. However, it pays to know if there is a concentration of risk in one place.

The following details of the methodology behind each indicator in the Vulnerability Monitor. Countries included in this study are China, Hong Kong India, Indonesia, Malaysia, Philippines, Singapore, South Korea, Taiwan and Thailand.

Growth momentum

To assess an economy's growth momentum, we come up with a single-country indicator (we call it the macro momentum indicator or MMI), which is a weighted average of the 3mma of the z-scores of annual growth rates of high-frequency indicators such as non-oil imports, industrial production, retail sales, credit and auto sales, among others. In order to arrive at an "optimized" composite score, each variable is weighted by its coefficient estimate obtained in a regression, where GDP is the dependent variable. Analysis is done over the period from 2010 to the present.

The MMI aims to proxy the pace of underlying domestic demand. Economies that are growing significantly faster (>=1 std) or slower (<=1 std) than their trend (average since 2010) incur a red flag, as they face the highest risk of a sharp adjustment. Guided by this rule, we take the absolute value of the country MMIs and rank them from highest to lowest.

Credit cycle

We use the ratio of nominal credit growth to nominal GDP growth in the ranking. Economies where credit is expanding considerably faster or slower than the underlying economy (i.e., we take the absolute value) merit a red flag. In financial crisis literature, credit growth of more than two times nominal GDP growth is a red light warning about credit quality. The rationale is simple: if credit grows substantially faster than the underlying economy, banks will likely struggle to manage debt repayment risks. Conversely, we deem that shrinking credit is not supportive of economic growth and could warn of an economic slowdown. In addition, we make use of other measures of credit such as the momentum of real credit growth (3mma of the z-scores), the total debt of an economy and historical changes.

Real rates

We take the deviation of short- and long-term real rates from its historical average (since 2011) and rank them accordingly. The idea again is that real rates that are considerably lower than historical trends and relative to peers warn of financial imbalances.

Debt

For household debt, we take the ratio of household sector loans to annualized GDP. We note that the figures are not strictly comparable across countries given differences in reporting. For instance, Malaysia, reports bank and non-bank financial institutions' loans to households, while many others only report bank loans. Keeping this caveat in mind and guided by available data on debt-servicing ratios and household assets, we rank the household debt-to-GDP ratios across EM Asia from highest (most at risk) to lowest. Aside from household debt, we also look at corporate sector and government debt. We source the data from the BIS's credit to the non-financial sector database. We take the sum of corporate sector and government debt as a share of a country's GDP and rank this across EM-Asian countries.

Asset market valuation

We look at the deviation of a country's PE ratio from its historical average (since 2011) to assess the potential misalignment in the stock markets. We use MSCI PE ratios for all markets. For the housing market, we look at the rise in housing prices in large cities of a country against the increase in GDP (since 2011) to assess the potential misalignment in housing markets. The more positive it is, the greater the risk of a correction.

FX valuation

We refer to the average of the results of our three FX valuation models: the Behavioral Equilibrium Exchange Rate (BEER), the Fundamental Equilibrium Exchange Rate (FEER) and PPP-based models. The only exception is the HKD, where in the absence of a BEER-based HKD REER fair value, only the average of the FEER and PPP fair values is presented. For more information on the three FX valuation models, kindly refer to the Appendix of the *FX Valuation Snapshot*.

Reserves cover

FX reserves relative to the projected gross external funding needs for a given year. Gross external funding (GEF) needs to refer to the sum of the current account deficit (forecast for the year) and short-term external debt, including any debt due within one year. The higher the reserves/GEF ratio, the greater the country's ability to counter adverse shocks and smooth the volatility in the exchange rate, and the lesser the degree of risk in our ranking. As we look at a country's ability to defend the currency against outflows, we also examine the odds of capital flow reversals. One measure is a country's foreign holdings of local debt securities, which is actually captured in the external debt measure that feeds into the GEF.

The author of this report wishes to acknowledge the contribution made by Daisy Sharma in preparation of this report and thanks William Stephens and Michael Spencer for their input.

Appendix 1

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