

Global Economic Perspectives



Presented by

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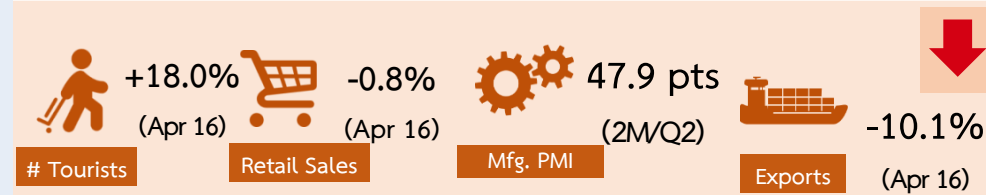
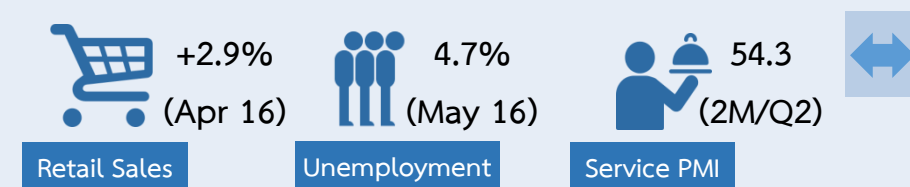
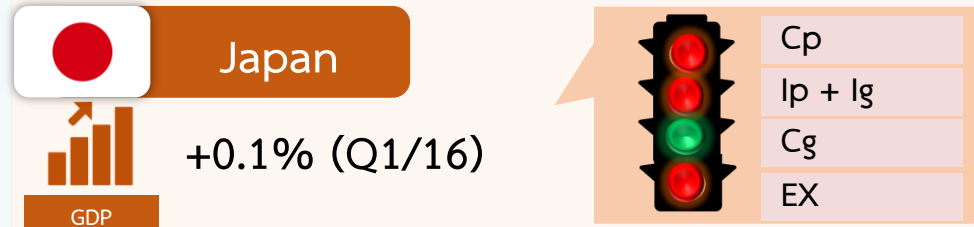
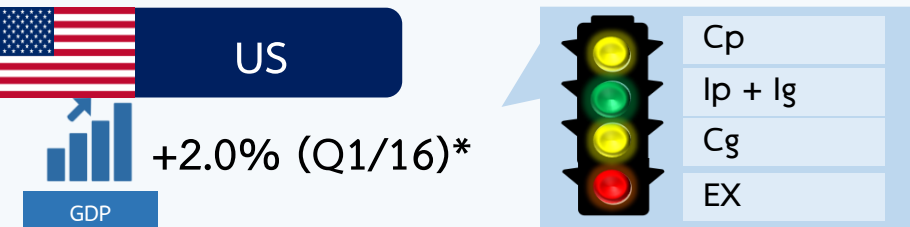
Bureau of Macroeconomic Policy

Fiscal Policy Office, Ministry of Finance

23 June 2016

Global Economic Focus

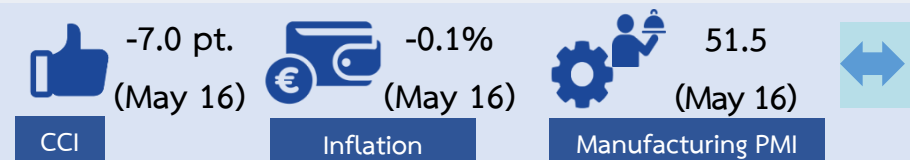
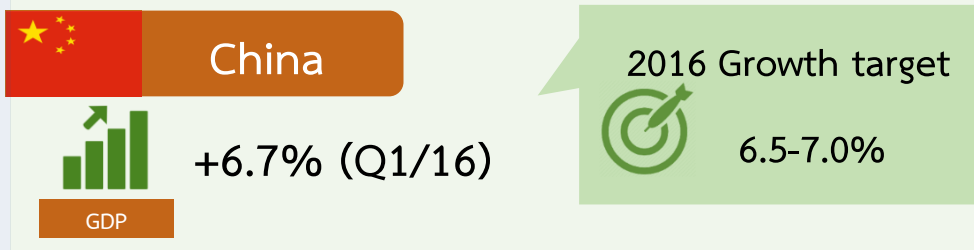
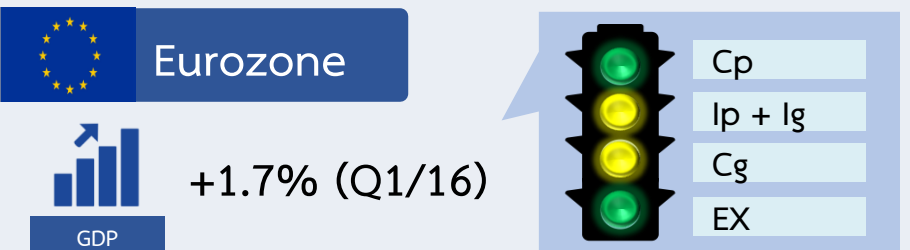
Fragile global economic recovery



Contradiction between
FOMC press release and minutes



Stimulus package and VAT hike delay



Eurogroup agreed on Greek debt relief
and UK referendum



PBOC adjusted rules on banks' RRR
calculation



US : Contradiction between FOMC press release and minutes

FOMC Meeting
26-27 Apr 16

Press Release
27 Apr 16

Minutes
18 May 16

Yellen's Speech
27 May 16

Yellen's Speech
6 June 16

Keep rate
at 0.25 -0.50%



Gradually raise
rate



May raise rate in
Jun 16

If incoming data
in Q2 signals
improvement

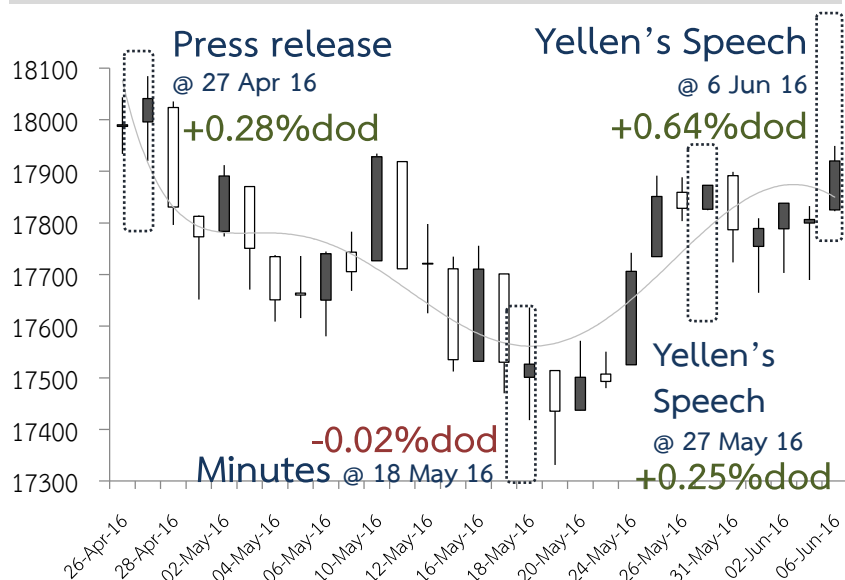


Hike
rate in
coming
months

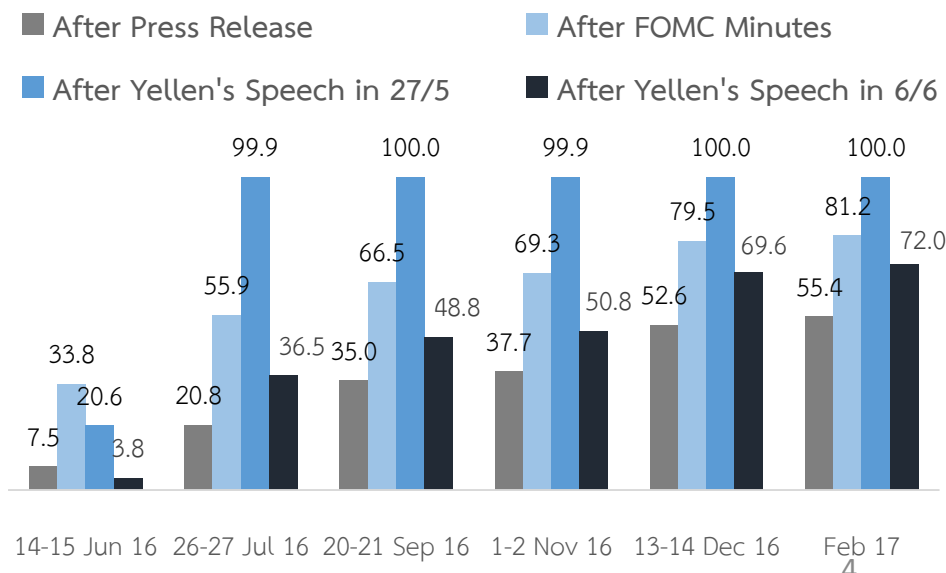


Shouldn't
attach too
much to any
single monthly
report

Market Impact: Dow Jones Industrial Average



Market expectation on Probability of Rate Hike





US : Presidential Election 2016

ELECTION STEPS



Primaries
Caucuses

National
Conventions

Finalize candidate
Choosing running mate
Campaigning (from July)

General
Election

8 Nov 16



Electoral
College



Donald Trump



Republican Nomination

1,239 gained/1,237 needed

Hillary Clinton



Democrat Nomination

2,383 gained/2,383 needed



Keep wage!

Minimum wage



International
Trade



Oppose TPP



Support US-CN
trade reform



Raise to \$12/hr

Minimum wage



International
Trade



Oppose TPP



Support trade that
promote jobs and
wages



Big Business

Increase tariff to support
domestic industry



Hedge Fund

Stop tax avoidance from carried
interest income on hedge fund

Abolish inheritance and
marriage property taxes



Rich people



Small Business



Tax relief



Tax cut if share profit
with employees

Reform tax code



Rich people



Student

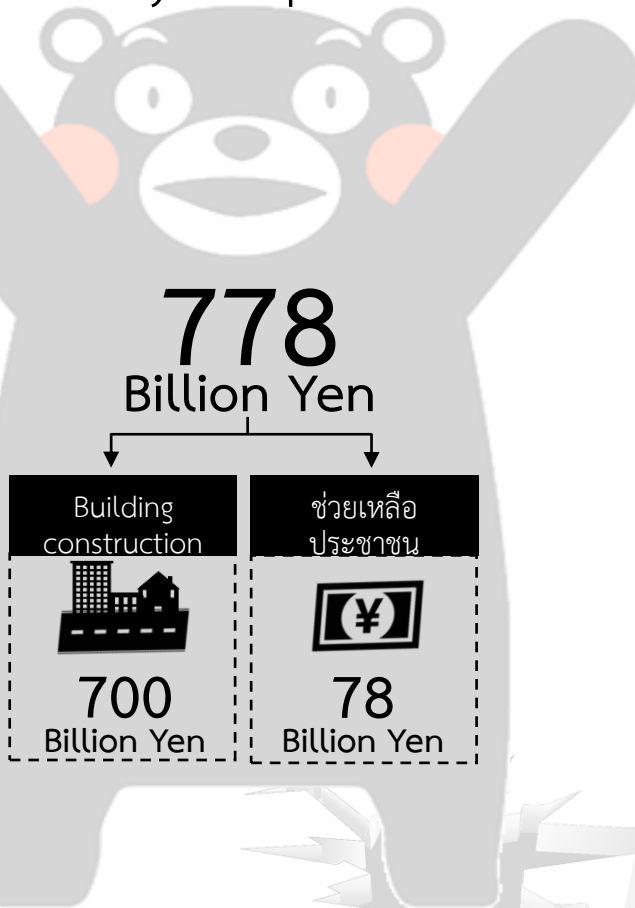
Tax cut of up to \$2,500

5



Japan: Stimulus package and VAT hike delay

- 1 The cabinet approved extra budget 2016 to relieve and reconstruct the economic damage caused by earthquake in Kumamoto



- 2 Japanese government has planned to increase VAT from 8% to 10% on 1 April 2017

Delay tax hike?

Commit to the plan!



Shinzo Abe
Prime Minister

VS



Taro Aso
Minister of Finance

- Prime Minister Abe announced that **VAT increasing will be put off until October 2019**
- However, for the ministry, raising the consumption tax rate is top of its must-do list for reconstructing Japan's debt-laden public finances.

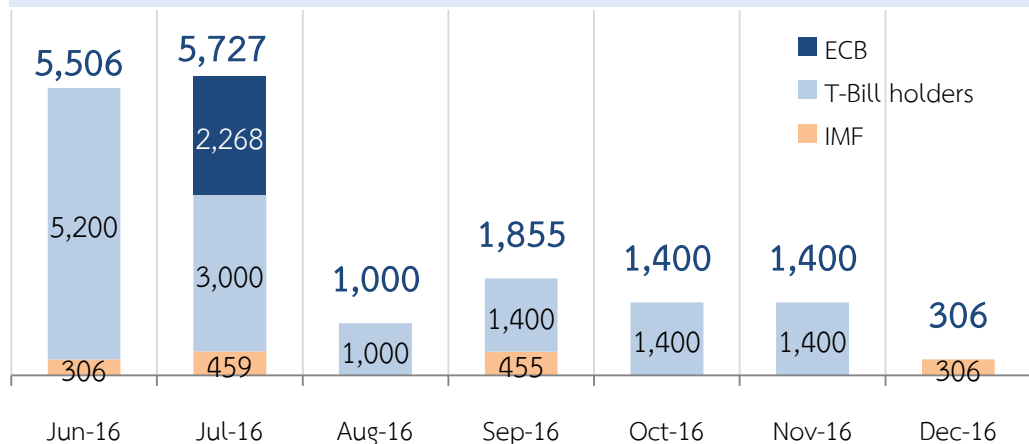


Eurogroup reached agreement on Greece Debt Relief

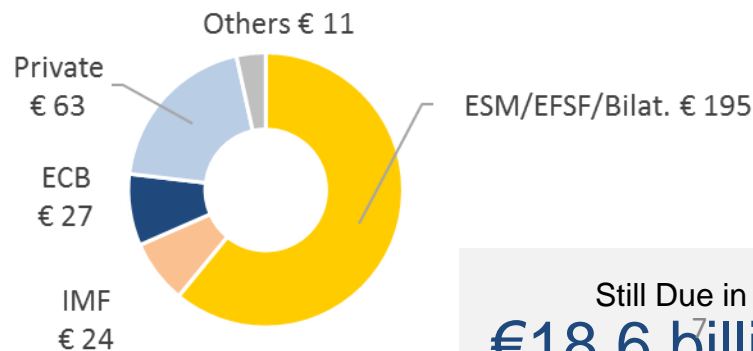
The Eurogroup agreed on a package of debt relief for Greece by lowering interest rate costs or changing repayment dates.



Greece Debt Repayment Schedule 2016



Total Debt
€321 billion



Still Due in 2016
€18.6 billion



UK referendum in 23 Jun 16



| Leave | Stay |
|---|---|
| Independence and Flexibility in Trade Negotiation | 45% of exports to EU closely-Linked Financial Market |
| Save at least 350 Mil. GBP of Membership Fee | Norway still has to pay to access single EU mkt and have no say |
| Regain control over Domestic Regulations | Simplified regulation under EU standard |
| Block influx of migrants | Leaving doesn't mean reduced migration |

Trade

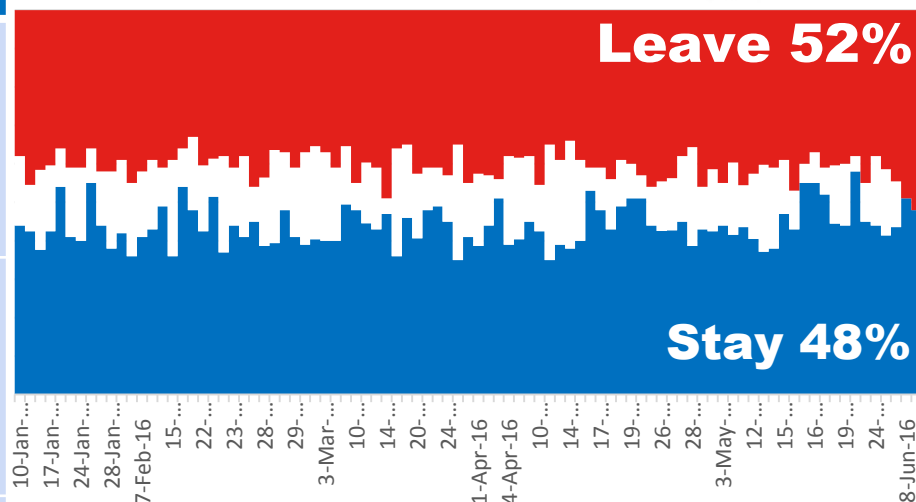
EU Budget

Regulations

Immigrations

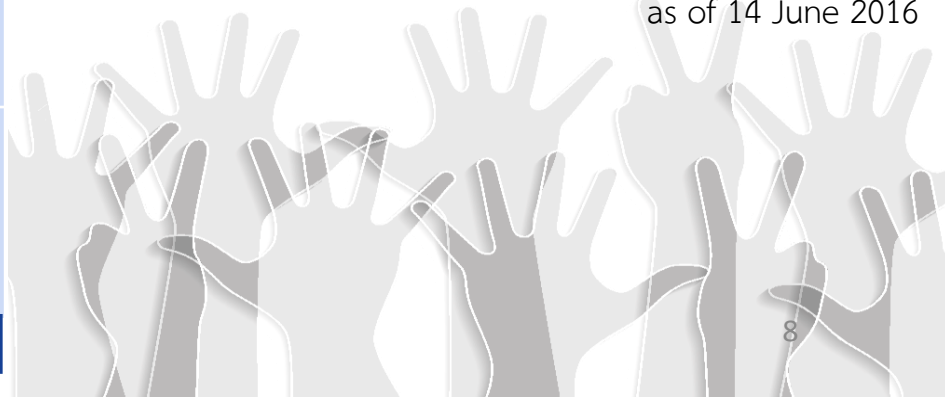
Source: The Economist

Figure 1: Stay-or-Leave Poll



Source: www.whatukthinks.org

as of 14 June 2016





PBOC adjusted rules on banks' RRR calculation

From

End of period



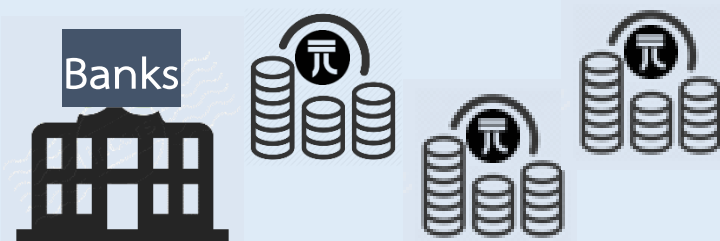
To

Arithmetic average of
daily outstanding
deposits in a certain

period

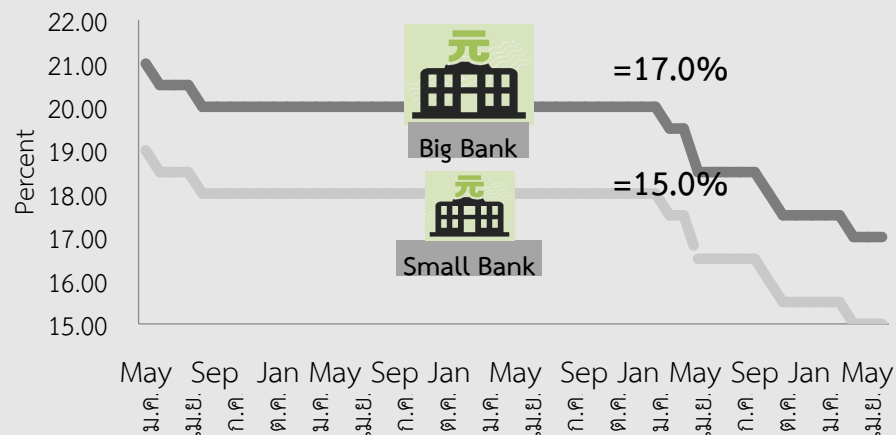
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Implication



Banks' flexibility of liquidity
management will improve

Current RRR





IMD raised Thailand's competitiveness ranking to 28th



13th
Economic
Performance

13

23rd
Government
Efficiency

27

25th
Business
Efficiency

24

49th
Infrastructure

46



Supportive factors



14th >> 10th
Public Finance

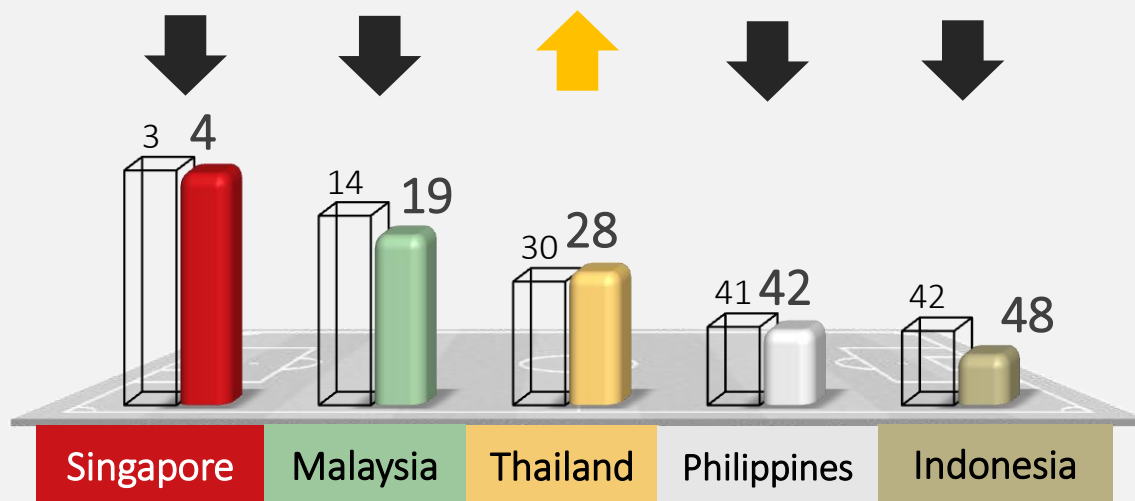


6th >> 5th
Fiscal Policy



51th >> 44th
Societal Framework

Compare to ASEAN-5



World Bank Outlook June 2016: “Divergences and Risks”

2016F



- Downward revision in commodity exporters
- Heightened domestic uncertainties
- More challenge in external environment

Divergences

- Low commodity price for Exporters vs Importers
- Divergence in monetary policy effectiveness vs willingness to use expansionary fiscal policy

Risks

- Policy and political uncertainties
- Geopolitical risks
- Eroding confidence in policy effectiveness
- Negative spillover from advanced and key emerging economies

Positive factors affecting Thai economy



1



Strengthening domestic consumption

2



Low commodity prices

3



Growing investment

World Bank's Global Outlook

| | Jan 16 | Jun 16 |
|-----------------------|--------|--------|
| World | 2.9 | 2.4 ▼ |
| Thailand | 2.0 | 2.5 ▲ |
| United State (11.2%) | 2.7 | 1.9 ▼ |
| China (11.1%) | 6.7 | 6.7 |
| Japan (9.4%) | 1.3 | 0.5 ▼ |
| Eurozone (7.2%) | 1.7 | 1.6 ▼ |
| Malaysia (4.8%) | 4.5 | 4.4 ▼ |
| Vietnam (4.2%) | 6.6 | 6.2 ▼ |
| Indonesia (3.7%) | 5.3 | 5.1 ▼ |
| Philippines (2.8%) | 6.4 | 6.4 |
| India (2.5%) | 7.8 | 7.6 ▼ |
| United Kingdom (1.8%) | 2.4 | 2.0 ▼ |

Source: World Bank GEP Report in June 2016

Photo credit: freepik.com, thenounproject.com



Global Economic Outlook 2016 by FPO

| Global Economic Outlook | 2014 | 2015 | 2016 Q1 | IMF Apr 16 | 2016f WB Jun 16 | FPO Apr 16 |
|-----------------------------|------|------|------------|---------------|-----------------------|---------------|
| 15 Trading Partners (76.2%) | 3.67 | 3.49 | 3.19 | 3.37 | - | 3.49 |
| 1. US (11.2%) | 2.4 | 2.4 | 2.0* | 2.4 | 1.9 | 2.4 |
| 2. China (11.1%) | 7.3 | 6.9 | 6.7 | 6.5 | 6.7 | 6.6 |
| 3. Japan (9.4%) | 0.0 | 0.5 | 0.1 | 0.5 | 0.5 | 0.8 |
| 4. Eurozone (7.2%) | 0.9 | 1.6 | 1.7 | 1.5 | 1.6 | 1.5 |
| 5. Hong Kong (5.5%) | 2.7 | 2.4 | 0.8 | 2.2 | N.A. | 1.9 |
| 6. Malaysia (4.8%) | 6.0 | 5.0 | 4.2 | 4.4 | 4.4 | 4.6 |
| 7. Australia (4.6%) | 2.7 | 2.5 | 3.1 | 2.5 | N.A. | 2.3 |
| 8. Vietnam (4.2%) | 6.0 | 6.7 | 5.5 | 6.3 | 6.2 | 6.7 |
| 9. Singapore (4.1%) | 3.3 | 2.0 | 1.8 | 1.8 | N.A. | 2.2 |
| 10. Indonesia (3.7%) | 5.0 | 4.8 | 4.9 | 4.9 | 5.1 | 5.1 |
| 11. Philippines (2.8%) | 6.2 | 5.9 | 6.9 | 6.0 | 6.4 | 6.9 |
| 12. India (2.5%) | 7.0 | 7.2 | 7.9 | 7.5 | 7.6 | 7.3 |
| 13. South Korea (1.9%) | 3.3 | 2.6 | 2.8 | 2.7 | N.A. | 2.7 |
| 14. United Kingdom (1.8%) | 2.9 | 2.3 | 2.0 | 1.9 | 2.0 | 2.2 |
| 15. Taiwan (1.7%) | 3.9 | 0.6 | -0.7 | 1.5 | N.A. | 1.4 |
| Thailand | 0.8 | 2.8 | 3.2 | 3.0 | 2.5 | 3.3 |

*Preliminary

Global Economic Perspectives

Global Economic Forecasts: What and Why?

- In the **Eurozone** a strong Q116 GDP triggered an upgrade in our 2016 GDP forecast from 1.4% to 1.6%. Similarly our 2016 **China** GDP was upgraded from 6.2% to 6.6% as both exports and domestic demand rebounded in March combined with looser-than expected credit and fiscal and quasi-fiscal policy support. Our **Latin America** GDP forecast though has fallen from -0.8% to -0.9% due to softer revisions to **Brazil** and **Argentina**. We are still forecasting **global growth** will be 2.9% in 2016 followed by 3.4% in 2017. That follows growth of 3.1% in 2015.
- **The Fed** seems to be slowly convincing itself that the early-Q1 shocks were only temporary, and it is, in turn, returning to an outlook for growth and inflation more similar to that which preceded the first rate hike. We continue to expect the first rate hike in September, but July is also a strong possibility and June a weaker one.

Global Economic Forecasts: What and Why?

Key developments

- Leading indicators of industrial activity have fallen. Both **G3 manufacturing orders** and **Global manufacturing** surveys are softer this month and global industrial production growth has also been subdued. Inventory-related indicators for the US continue to remain quite high which suggest the near-term outlook for manufacturing production is quite soft. That said, financial conditions are more accommodating than they were, real world trade is holding up and commodity prices (oil) have gained some ground.
- **H2 will likely show further acceleration in the US.** The accomplishment of some H1 inventory correction leaves less to do later, eventually benefiting the factory sector. Profits and business confidence appear to have troughed—a positive for capex. Export orders are picking up again. The rise in the saving rate is likely to stall. Wage gains appear to be accelerating a little.
- The **ECB** delivered a bigger-than-expected easing package on 10 March, comprising cuts to all three benchmark interest rates (depo now at

-0.4%), an increase in the monthly asset purchases from EUR 60bn to EUR 80bn, the inclusion of non-financial corporate bonds into the QE programme, and another TLTRO, with sweetened conditions. We think the ECB is "done" for now – until Q4 2016, when we expect guidance from the ECB on how it wants to conduct its asset purchases after March 2017.

Risks to the forecast

- In the **UK**, opinion polls on the **EU referendum** remain stable. Sterling has been the main barometer of uncertainty, and we think this is likely to continue – equities are much harder to trade for the risk of UK exit from the EU.
- **The dependence of many of the world's major economies on loose monetary conditions poses risks** for financial stability if, as we assume, the Fed embarks on a normalization of monetary policy in the latter half of the year.
- **A slowing of China** or an aggressive devaluation in the Chinese currency. However these both remain unlikely given China's capacity to insulate debtors and its currency from market pressures. Fragilities in other major emerging economies (e.g., Brazil and Russia) are further sources of downside risk.
- We would highlight **more rapid US household formation stimulating consumption**, or the possibility that global Q4 economic data is revised meaningfully higher as a source of upside risk.

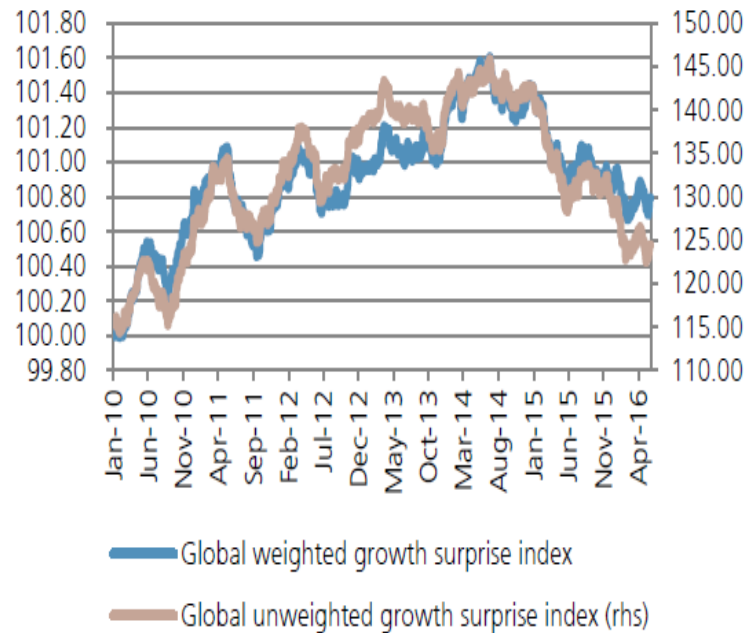
Global Economic Forecasts: What and Why?

What to watch

- **Bank lending standards and loan demand**
- **Further gains in US home prices**
- **Chinese housing indicators.**
- **Oil prices**
- **Inflation**
- **Food prices**

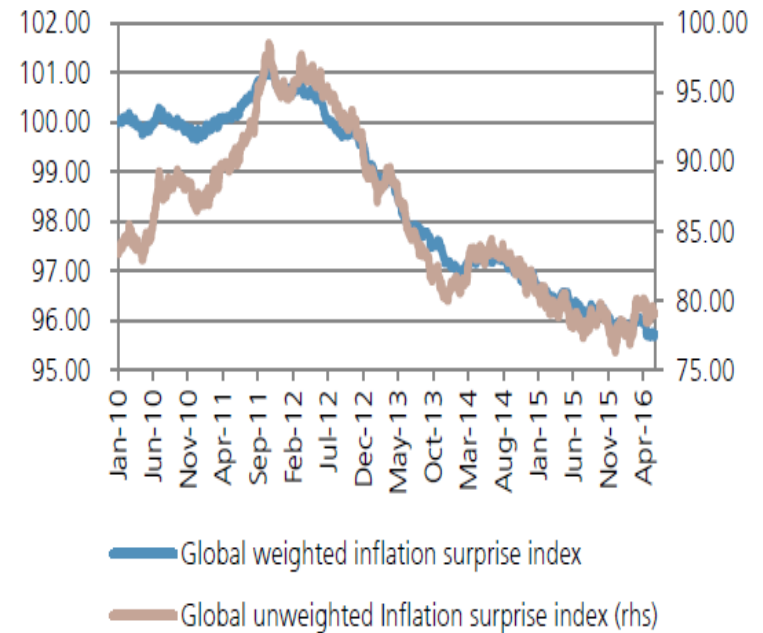
Regional Surprises

Global unweighted and weighted growth surprises



Source: Bloomberg/UBS

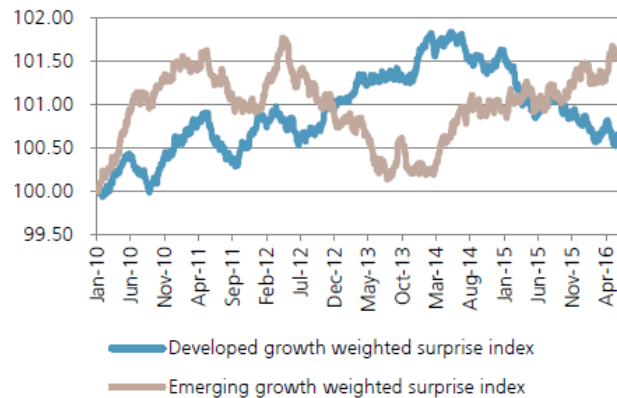
Global unweighted and weighted inflation surprises



Source: Bloomberg/UBS

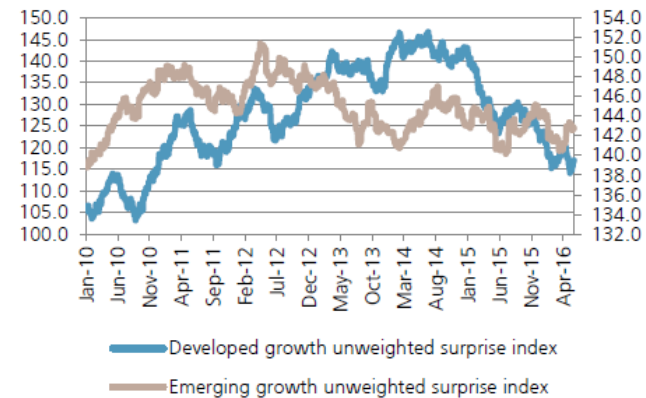
Regional Surprises

Developed vs Emerging growth weighted surprises



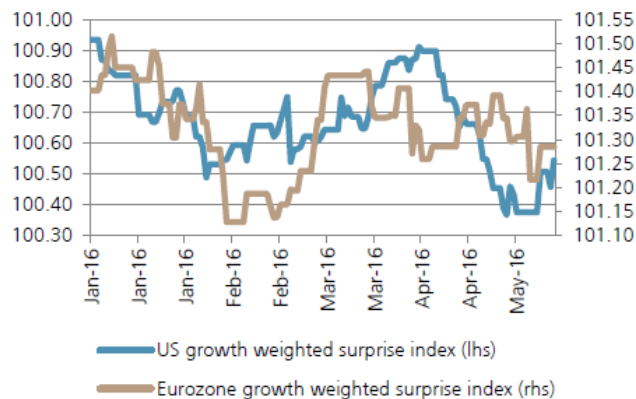
Source: Bloomberg/UBS

Developed vs Emerging growth unweighted surprises



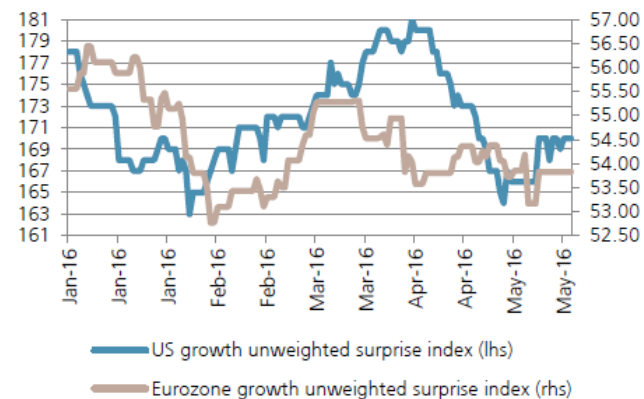
Source: Bloomberg/UBS

US vs Eurozone growth weighted surprises



Source: Bloomberg/UBS

US vs Eurozone growth unweighted surprises



Source: Bloomberg/UBS

The US

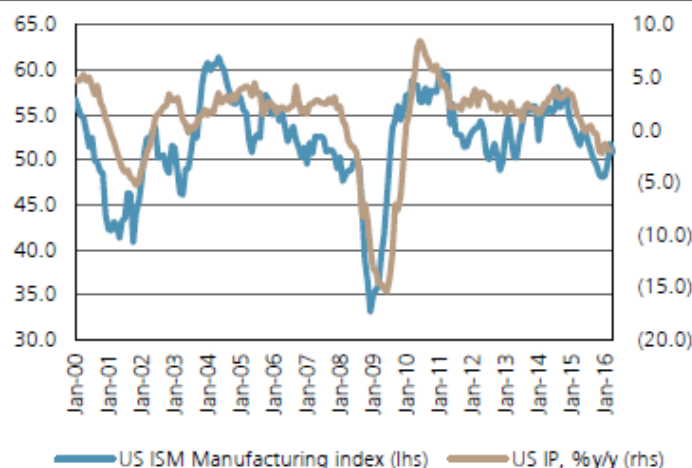
Key Messages

- 2H15 weakness extending into 1H16 amid inventory correction, stalled capex, and uneven household spending
- There are some tentative signs of a pickup at the end of Q1/start of Q2
- Slow growth and a slow-moving Fed, but no recession.
- Inflation indicators continue to accelerate and are likely to put more pressure on PCE than CPI.
- We expect a 0.875% policy rate at the end of 2016 and 1.875% at the end of 2017.

Main Developments

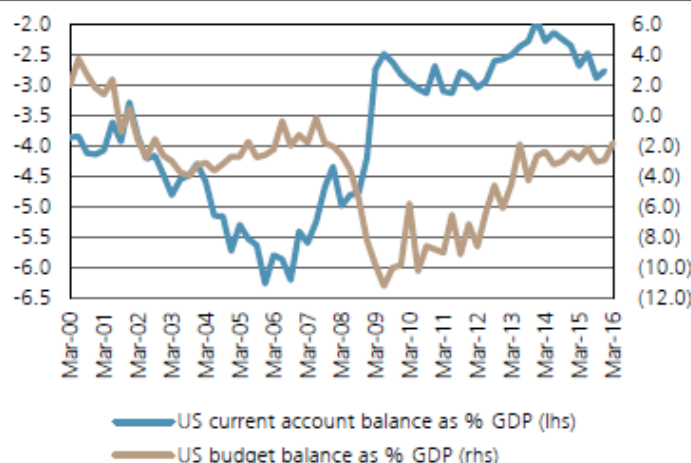
- **H1 growth may put upward pressure on our forecast for 1.5% calendar average 2016 real GDP.** Q1 growth is likely to be revised up ½ pt to a 1.0% annual rate. Our Q2 growth forecast of 1.3% may be low. Strong April retail sales imply consumption accelerated sharply to start Q2. We still forecast a decent H2 acceleration, but Q1-Q2 may be a little stronger than we have incorporated into our estimates.
- The Fed clearly expects some reacceleration in spending but also downplays Q1 spending softness, instead focusing on continued labour market momentum. There are technical and fundamental reasons to expect Q2 acceleration. Flaws in Q1 GDP seasonal adjustment have biased Q1 growth figures down. Those seasonal biases also appear to add a bit to Q2 (though not as much as they take away from Q1). More fundamentally, the foreign and financial strains of the start of the year are fading.
- **H2 will likely show further acceleration.** The accomplishment of some H1 inventory correction leaves less to do later, eventually benefiting the factory sector. Profits and business confidence appear to have troughed—a positive for capex. Export orders are picking up again. The rise in the saving rate is likely to stall. Wage gains appear to be accelerating a little.
- **Inflation pressures continue to build.** The core CPI has risen at a 2½% a.r. this year through Apr (vs 2.0%/y in Q415), and energy prices are no longer the drag that they were. Most of the acceleration has been non-rent components, which means greater pressure on core PCE than core CPI inflation—a warning signal for the Fed.
- **The Fed** is slowly convincing itself that the early-Q1 shocks were only temporary, and it is, in turn, returning to an outlook for growth and inflation more similar to that which preceded the first rate hike. We continue to expect the first rate hike in September, but July is also a strong possibility and June a weaker one.

US ISM and industrial production



Source: UBS, Haver

US current account and budget balance



Source: UBS, Haver

Eurozone core

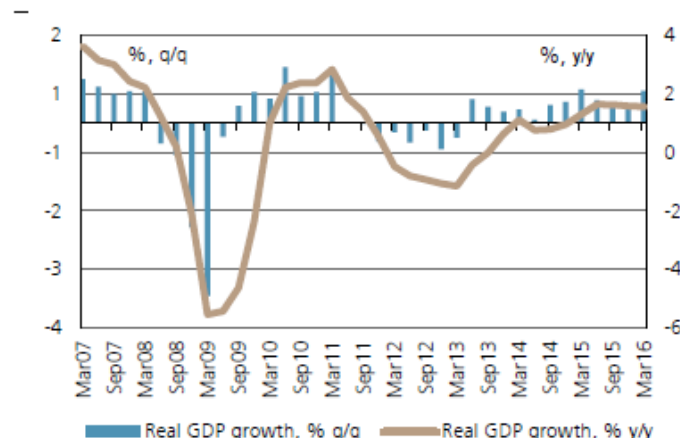
Key Messages

- Following the strong Q1 GDP data, we upgraded our 2016 Eurozone growth forecast to 1.6% from 1.4%; we maintain our 1.7% projection for 2017.
- We expect HICP to stay at or below zero until July, before rising to 1.0% y/y by end-2016. We forecast 1.7% y/y for end-2017.
- Following its substantial easing package on 10 March, we believe the ECB is "done" for now. But in Q4, we expect the ECB to guide the markets on how it wants to conduct its asset purchases after March 2017. We believe the likelihood of QE ending sharply after March 2017 is relatively low.

Main developments

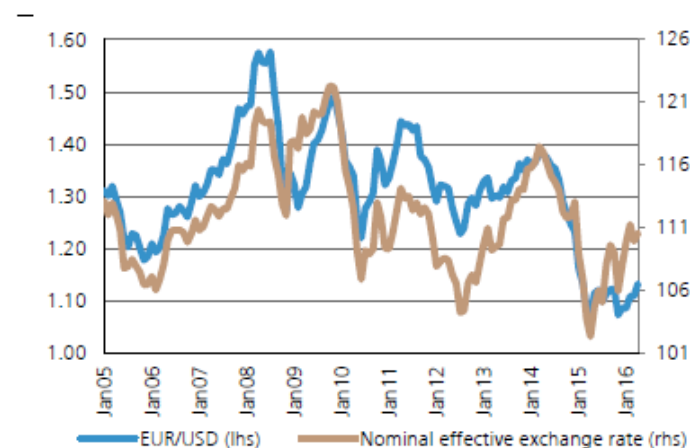
- Eurozone GDP grew by a surprisingly strong 0.6% q/q (1.6% y/y) in Q1 2016**, which led us to raise our 2016 GDP forecast to 1.6% from 1.4%; we continue to project **1.7% growth for 2017**. External risks have arguably receded a bit recently, but we are conscious about various political risks.
- We expect **growth** to be **carried by domestic demand**, while the impact of foreign trade is likely to be slightly negative. The key drivers of growth in 2016/17 should be: (a) the ECB's easy monetary policy; (b) low oil and commodity prices; and (c) fiscal policy turning growth-supportive.
- On the country level, we raised our 2016 forecasts for **Germany, France and Spain** following the Q1 release on 13 May. We now expect German growth to be 1.6% in 2016 and 1.5% in 2017, France to grow by 1.5% and 1.7% in 2016/17 and Spanish GDP to rise by 2.9% and 2.2%. We marginally lowered our **Italy** forecast to 1.1% this year given somewhat weaker Q1 data than expected.
- Eurozone HICP** stood at -0.2% in April and we expect the rate to stay around zero or even negative until July, before rising to perhaps 1.0% y/y by end-2016, on the back of base effects related to energy. We project 1.7% y/y for end-2017, while stressing the substantial uncertainty related to energy prices.
- The **ECB** delivered a bigger-than-expected easing package on 10 March, comprising cuts to all three key interest rates (depo now at -0.4%), a rise in the monthly asset purchases from EUR 60bn to EUR 80bn, the inclusion of non-financial corporate bonds into the QE programme, and a sweetened TLTRO II. Regarding the outlook, we think the ECB is "done" for now – until Q4 2016, when we expect guidance from the ECB on how it wants to conduct its asset purchases after March 2017.

Eurozone real GDP, %q/q and y/y



Source: Haver, UBS

EUR/USD & NEER



Source: Haver, UBS

Eurozone periphery

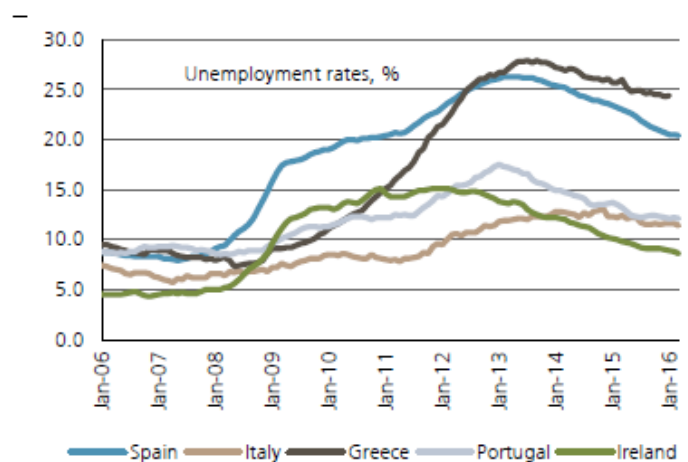
Key Messages

- The periphery benefits from the Eurozone recovery, easier financial conditions, smaller fiscal drag and improved competitiveness.
- Spain's macro performance remains solid. But the difficulties in forming a new government and the Catalonia issue remain sources of political risk.
- The new left-of-centre government in Portugal is slowing down the path of fiscal consolidation. The markets will likely pay heightened attention.
- We expect Greece to return to a growth path in 2017 (+1.5%), assuming that Greece sticks to the current, third EUR 86bn bail-out terms.

Main Developments

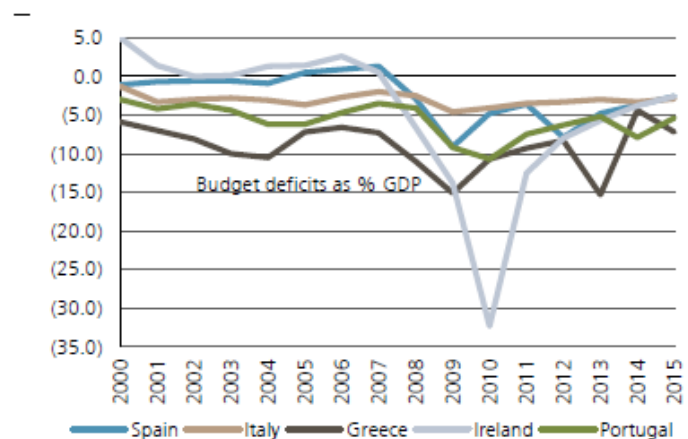
- We remain constructive on the **Spanish economy**, with GDP growth of 2.9% in 2016 (recently upgraded from 2.6%) and 2.2% for 2017, after 3.2% in 2015. Spain is heading towards repeat elections on 26 June, following the failure to establish a new government after the elections on 20 December. The political uncertainty may have an impact on business sentiment. The negotiations with the independence movement in Catalonia are likely to remain complicated as well.
- Following the elections in **Portugal** on 4 October, Prime Minister Antonio Costa (Socialist) is leading a minority government. The government is expected to moderate the path of fiscal austerity. Given that Portugal's economic fundamentals remain somewhat vulnerable, the new government's economic policy, and fiscal policy in particular, is likely to be closely scrutinized by the markets.
- We expect **Greece** to return to a growth path in 2017 (+1.5%) from a -0.9% in 2016, assuming that Greece sticks to the current, third bail out (€86bn). Greece and the institutions have concluded the first review given the Greek parliament passed a law on pension and taxes and an agreement on potential contingency measures has been reached. If the first review were to be concluded it would open the way for discussions on debt relief. A new IMF document argued to focus on Gross Financing Need and suggested a solution that would cut GFN by a cumulative 40% of GDP by 2040 via a combination of longer maturities and low interest rates (1.3%). If debt relief is considered to be adequate by the IMF, it could re-join the programme. The ECB could also potentially include Greek bonds in its QE.

Unemployment rates



Source: UBS, Haver

Budget deficits as % GDP



Source: UBS, Haver

Japan

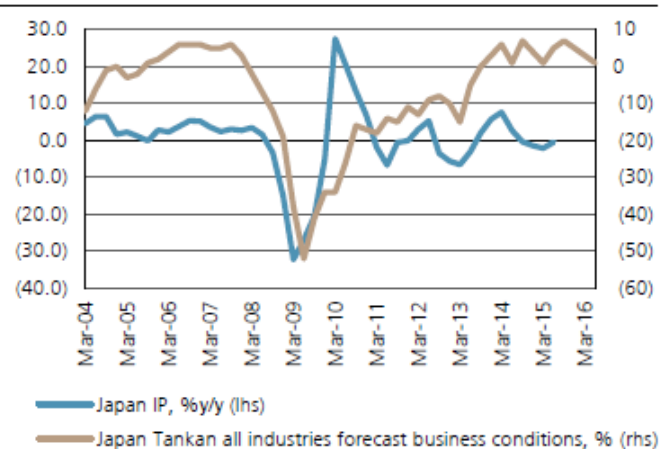
Key Messages

- Q1 GDP was better than expected due to consumption and exports. However, we cut our Q2 GDP forecast and maintained CY2016 forecast.
- PM Abe is expected to announce large scale supplementary budget after G7 summit. The VAT hike is likely to be delayed.
- BoJ is also likely to move, coinciding with the supplementary budget, in order to enhance inflation expectations.
- The impact on market sentiments and on potential growth from new growth strategy would likely be limited.

Main Developments

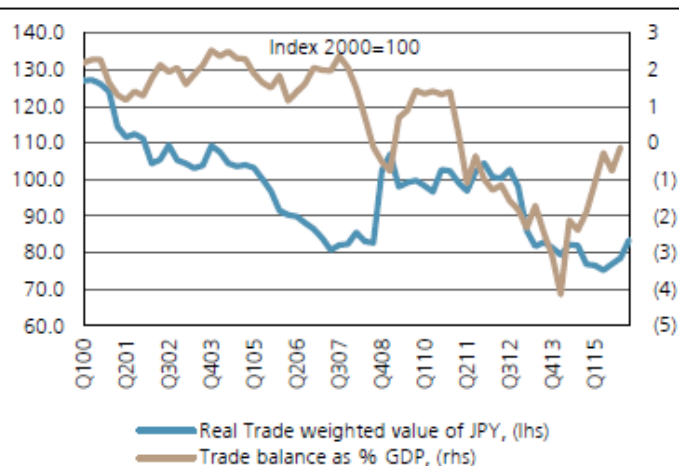
- Q1 GDP was +0.4%qoq, much stronger than both the consensus and the UBS view.** The better than expected results derived mainly from consumption supported by the leap year effect and from exports supported by inbound consumption. Capex remained weak at -1%qoq despite the negative rate policy of the BoJ. Despite better than expected results in Q1, **we have downgraded our Q2 growth forecast after the Kumamoto earthquake and maintained CY2016 growth forecast at +0.8%.**
- PM Abe is likely to announce large scale fiscal spending after the G7 summit in May 26-27th, possibly on 1st June** (the end of the current Diet session). We expect a supplementary budget of JPY 10 trn (2% of GDP), focusing on measures to stimulate consumption and on infrastructure spending. **A decision to delay the VAT hike** (a 2% hike is scheduled in April 2017) is possible. If there is a delay on the VAT hike, PM Abe may feel it necessary to hold a lower house election alongside the upper house election in July. On the basis of current Cabinet approval ratings in the polls, the LDP - Komei partnership is likely to maintain a two thirds majority.
- For monetary policy, a coordinated easing alongside government fiscal spending would have the biggest market and economic impact, specifically with regard to inflation expectations. We expect additional easing in the near future (probability for June is 40%, for July 20%, for Sep, 20%).
- The government has released drafts of a new growth strategy, focusing on 1. Fourth Industrial Revolution (Robotics, IoT, AT), 2. Promoting healthcare, 3. Enhancing tourism strategy, 4. Improving productivity in servicing sectors, 5. Activation of existing housing etc. The impact on market sentiment would be limited. We maintain Japan's potential growth at around 0.7% even with revised new growth strategy.

Industrial production and Tankan index



Source: UBS, Haver

Trade Balance and JPY



Source: UBS, Haver

UK

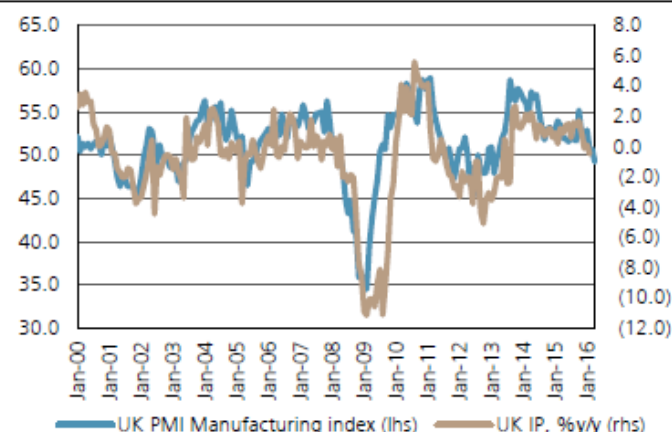
Key Messages

- We expect the UK economy to grow 2.0% in 2016 and 2.3% 2017.
- We expect a first BoE rate hike in November 2016.
- Activity has slowed in the run up to the EU referendum vote.
- We expect a recovery in the second half of the year, but the risks appear to be on the downside.

Main Developments

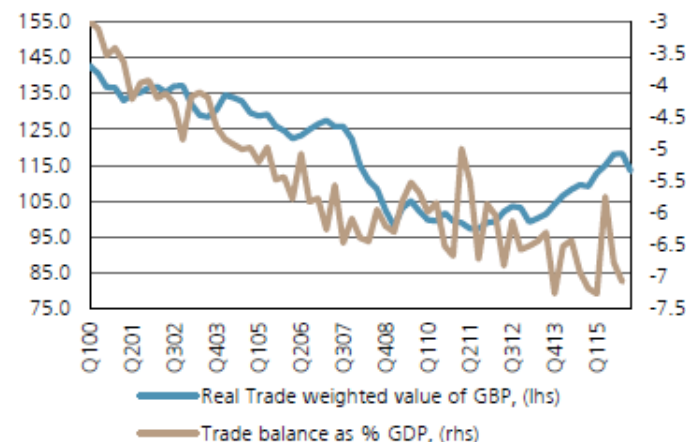
- **UK GDP growth slowed to 0.4% in 2016 Q1, down from 0.6% q/q in the fourth quarter of 2015.** That meant the year-on-year rate of growth remains at 2.1%. Relative to consensus the outcome was in line, though our previous forecast updated had pencilled a 0.5% growth rate.
- **We see growth in the UK at 2.0% in 2016 and 2.3% in 2017.** Near-term momentum is being impacted by uncertainty from the EU referendum: investment and hiring intentions have slowed, and we expect that GDP growth in Q2 will slow to 0.3% q/q.
- **Opinion polls on the EU referendum remain stable.** Sterling has been the main barometer of uncertainty, and we think this is likely to continue – equities are much harder to trade for the risk that the UK leaves the EU.
- **We expect the first hike from the Bank of England in November.** Though this view is predicated on a potential bounce back in activity in the second half of the year, and a renewed momentum in the UK labour market.

Industrial production and PMI index



Source: UBS, Haver

Trade Balance and GBP



Source: UBS, Haver

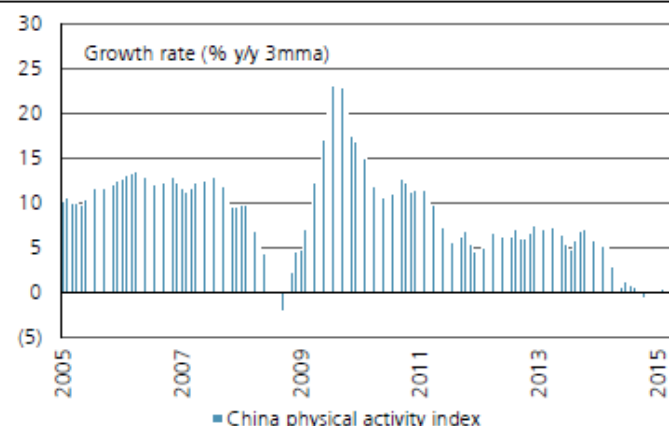
China/Emerging Asia

- China's rebound eased in April, as public and infrastructure investment cooled from March's very fast pace as private and manufacturing investment growth edged down. Property sales & starts increased further but investment did not accelerate.
- Despite weaker headline #s, overall credit growth and the credit impulse stayed very strong. Such strength and recent policy signals about reining in credit growth and financial risk controls mean that policy easing momentum has already peaked.
- We revised our end-2016 USDCNY forecast to 6.6-6.7, from 6.8 previously. Global uncertainties and lacklustre US growth should keep the USD relatively weak to support USDCNY stability in the next few months. But as the next US Fed hike comes back into focus, pressures will likely revive again.

Main Developments

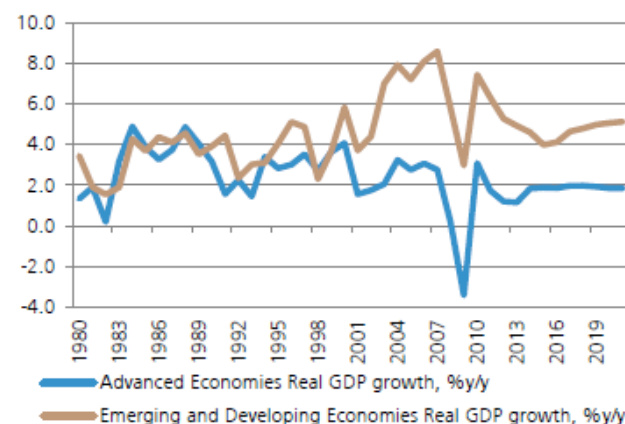
- April's economic data came in mostly weaker than expected.** A key drag came from public & infrastructure investment growth which normalized from March's strength, as private and manufacturing investment growth edged further down. External and domestic demand were weak as well, weighing down IP growth – although supply-side restraint likely contributed too. Property sales accelerated to over 44%/y despite a high base and cooling measures in some selected cities, as new starts grew almost 26%. However, property investment did not accelerate, suggesting that some new starts have yet to turn into active construction, possibly due to a front-running of new starts before May 1 when a new VAT tax structure kicked in, and lingering developer caution on the property recovery's duration.
- Credit policy remains accommodative, despite April's headline disappointment.** New TSF dipped on weaker new corporate bonds, undiscounted bills and loans due to seasonal and policy normalization factors. But once adjusted for local government bond issuances, overall credit growth (17%/y) and our credit impulse (>37% of GDP) stayed very strong. Meanwhile, rising investor concerns over rising default/credit events contributed to an onshore bond market sell-off in April and early May, but we think other structural factors are also driving the upward adjustment in yields and spreads. Scale of material YTD default events remains tiny at <0.05% of total bond market capitalization.
- The government released new policy signals to rein in policy easing expectations, stressing reforms and growth support can co-exist.** A People's Daily interview with a "person of authority" published May 9th called for more control of financial risks and progress on structural reforms. Combined with stronger economic data and the current strength of credit impulse, it is clear that easing policy momentum has already peaked. We think that subsequent government statements about a continued need to support growth were not intended to cancel or nullify this message, but instead meant to highlight that the pursuit of reforms does not necessitate the sacrifice of near-term growth support.
- USD weakness to help USDCNY stability.** Global uncertainties and lacklustre US growth should keep the USD relatively weak to support USDCNY stability in the next few months. But as the next US Fed hike comes back into focus later this year, such pressures may revive again. Even so, China's recent move to allow the RMB basket index to depreciate by >3% has bought built some space for the CNY to not have to depreciate so much against the USD if the latter strengthens. Hence the recent revision of our end-2016 USDCNY forecast to only 6.6-6.7, from 6.8 previously.

China physical activity index



Source: UBS, Haver

EM/DM Real GDP Growth



Source: UBS, Haver

Emerging non-Asia

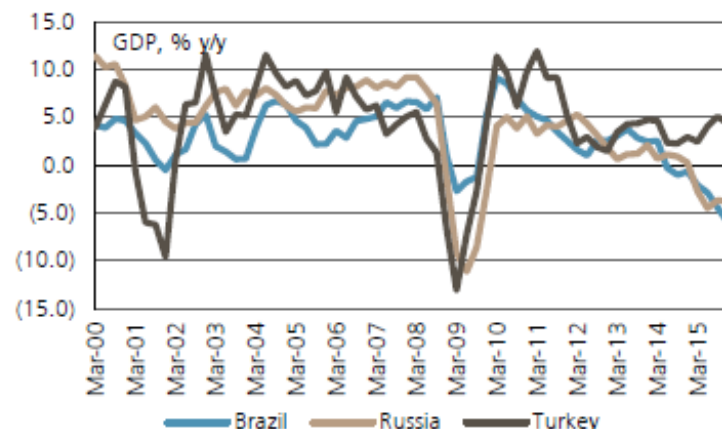
Key Messages

- Russia is likely to exit the recession this year but with growth prospects dim, the government is looking at steps to boost GDP growth to 4% in medium term.
- LatAm is still a region adjusting to the new realities of lower commodity prices and lower capital inflows.
- Brazil needs to engineer a fiscal adjustment of some 5 percentage points of GDP just to stabilize the debt.

Main Developments

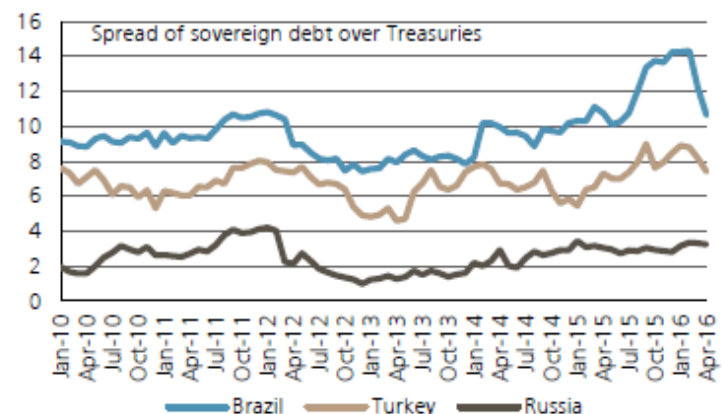
- **Russia** is approaching the end of the recession: the GDP decline moderated to -1.2%/y in Q1'16, prompting us to revise FY 2016 forecast up to -0.6% from -1.2%. Despite inflation undershooting expectations, the CBR kept rates at 11% but hinted at a possible resumption in the easing cycle at one of the forthcoming meetings; we expect a 50bps cut in June provided RUB volatility stays low. To compensate for weaker oil revenues, the government aims to raise extra revenue from privatisation and higher SOE dividends but so far has made little progress, relying on the Reserve Fund instead. The PM announced a return to 3-year fiscal planning and possibly a fiscal rule. The focus is shifting to an economic programme for 2018 presidential elections, with former FinMin Kudrin tasked with preparing the list of measures to bring economic growth back to 4%.
- In **Ukraine** after months of political uncertainty, a ruling coalition of two main pro-EU parties appointed a new government under the leadership of presidential ally V. Groisman. Passing the IMF programme review delayed since Dec' 2015 is the main near term task.
- In Emerging EMEA, central banks in **Hungary** and **Turkey** have continued on their easing path in May. In Turkey, there was a reshuffle in the government as there was a change in the Prime Minister position.
- Pending a final vote on impeachment in the Senate, **Brazil's** President Rousseff was removed from office and replaced by vice-President Michel Temer, who moved quickly to appoint a new cabinet. Nonetheless, given the more than 5% of GDP turnaround in the primary balance needed to stabilize the debt, the new administration has its work cut out for it. We await announcements on spending cuts, tax measures, and sale of assets to start putting the debt dynamics on a more stable path. We see inflation dipping lower towards the CB's target band, allowing the monetary authority to deliver 150bp in cuts later in the year and a 10.5% Selic rate next year – consistent with a USD/BRL at 3.60-3.70 for 2016-17. In **Mexico**, the peso has again come under pressure despite the recovery in oil prices, again raising the spectre of further rate hikes and/or intervention on the part of Banxico ahead of the Fed. In **Argentina**, the authorities are focused on bringing down inflation now that the holdout situation has been resolved: the risk is that economic activity may take longer to recover than originally expected. **Venezuela** is facing a mounting shortage of goods. The government has so far resisted attempts by the opposition for a recall referendum.

GDP growth



Source: UBS, Bloomberg

Spread of sovereign debt over Treasuries

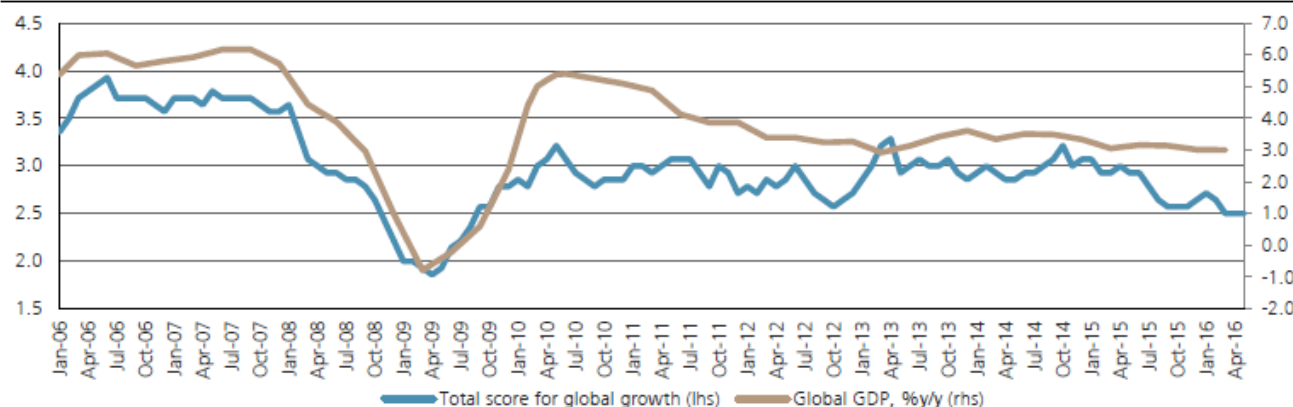


Source: UBS, Bloomberg

Global growth

- What the numbers say:** The recent economic data for the world has been mixed. In the Eurozone a strong Q116 GDP triggered an upgrade in our 2016 GDP forecast from 1.4% to 1.6%. Similarly our 2016 China GDP was upgraded from 6.2% to 6.6% as both exports and domestic demand rebounded in March combined with looser-than expected credit and fiscal and quasi-fiscal policy support. Our Latin America GDP forecast though has fallen from -0.8% to -0.9% due to softer revisions to Brazil and Argentina. We are still forecasting global growth to be 2.9% in 2016 followed by 3.4% in 2017. That follows growth of 3.1% in 2015. The recent dataflow from the US though has been varied although it has picked up in the last week as displayed in our unweighted and weighted global growth surprise indices.
- What they mean:** Although the US is a very integrated part of the global economy traditional relationships between economies have been altered over the past decade. The impact of the US on the growth momentum of Europe and Asia over the first half of 2016 should not be materially different from the impact of the US on the growth momentum of Europe and Asia in the latter part of 2016.
- 12-month outlook:** Poor growth momentum in late 2015 is expected to spill over into early 2016 before gradually improving in 2H16 and 2017.

Total score for global growth and global GDP



Global Growth

Global Economic activity

| Indicators | Latest | 3-month Av. | Trend | Std. Dev. | Score |
|------------------------------|--------|-------------|-------|-----------|-------|
| Global growth surprise index | 123.0 | 124.5 | 128.8 | 7.9 | 2.0 |
| Global composite PMI index | 51.6 | 51.3 | 53.8 | 4.5 | 2.0 |
| Global Consumer Conf ind. | 0.6 | 0.6 | 0.0 | 0.9 | 4.0 |
| G7 RPD growth | 2.4 | 2.4 | 1.7 | 0.9 | 4.0 |
| China physical activity ind. | 0.8 | 1.4 | 9.6 | 5.2 | 1.0 |

| | | | | | |
|---------|---------------|---|---------|-----------------|---|
| | Weaker growth | | Neutral | Stronger growth | |
| | ← | | Score | → | |
| | 1 | 2 | 3 | 4 | 5 |
| Average | | | 2.6 | | |

Financial conditions

| Indicators | Latest | 3-month Av. | Trend | Std. Dev. | Score |
|------------------------------|--------|-------------|-------|-----------|-------|
| UBS US fin. conditions ind.* | -0.2 | -0.4 | 0.0 | 0.3 | 1.0 |
| UBS EU fin. conditions ind.* | 0.2 | -0.1 | 0.0 | 0.5 | 3.0 |
| UBS JPY fin. cond. ind.* | -0.3 | -0.2 | 0.0 | 0.5 | 3.0 |
| EMBI spread, bps | 377.9 | 398.6 | 399.2 | 105.3 | 3.0 |

*An index of credit market spreads, equity prices and bank lending growth

| | | | | | |
|---------|---------------|---|---------|-----------------|---|
| | Weaker growth | | Neutral | Stronger growth | |
| | ← | | Score | → | |
| | 1 | 2 | 3 | 4 | 5 |
| Average | | | 2.5 | | |

Global monetary conditions

| Indicators | Latest | 3-month Av. | Trend | Std. Dev. | Score |
|---------------------|--------|-------------|-------|-----------|-------|
| G7 M1 growth (%y/y) | 6.5 | 6.8 | 6.2 | 2.7 | 3.0 |
| G7 M3 growth(%y/y) | 5.4 | 5.4 | 5.3 | 1.3 | 3.0 |
| EM M1 growth (%y/y) | 12.2 | 12.2 | 14.9 | 4.0 | 2.0 |
| EM M2 growth(%y/y) | 10.5 | 10.9 | 15.4 | 2.5 | 1.0 |
| G7 policy stance* | -0.4 | -0.7 | -0.7 | 1.2 | 3.0 |

*An index of real policy rates and government budget balances

| | | | | | |
|---------|---------------|-----|---------|-----------------|---|
| | Weaker growth | | Neutral | Stronger growth | |
| | ← | | Score | → | |
| | 1 | 2 | 3 | 4 | 5 |
| Average | | 2.4 | | | |

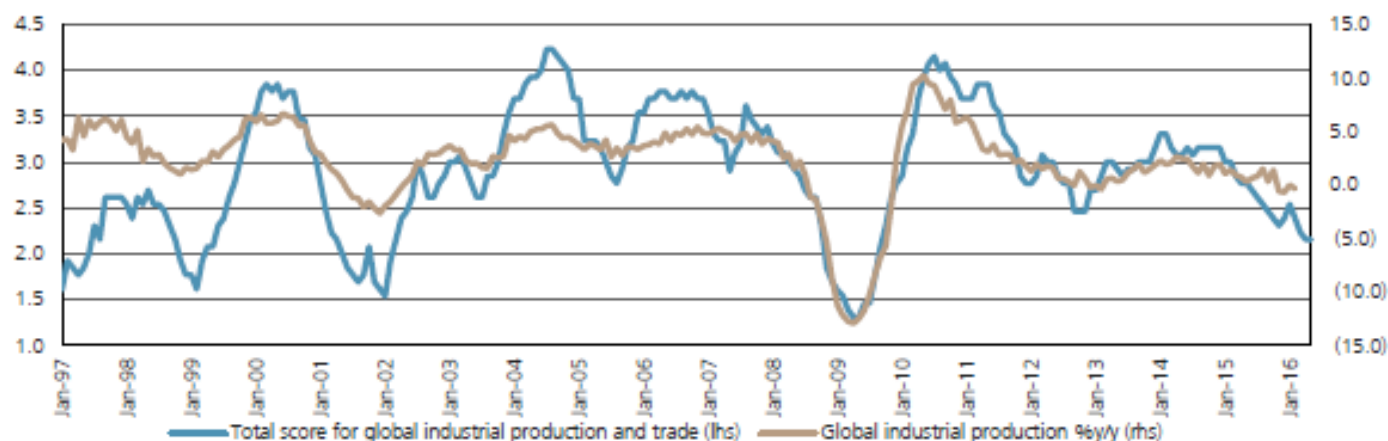
*The overall score represents a simple average of the scores for each indicator

Source (all Figures): UBS/Haver, OEF Note: Values outside 1 SD merit a '1' or '5' score, 1& 2 SD a '2' or '4', and a '3' otherwise.

Global Production and Trade

- ***What the numbers say:*** Global manufacturing surveys are softer this month as are G3 manufacturing orders which have fallen from 6.9% to -2.0%/y. Global industrial production growth has also been subdued and inventory-related indicators for the US continue to remain quite high which suggest the near-term outlook for manufacturing production is quite soft. Nominal world trade indicators remain subdued relative to recovery phases of the past.
- ***What they mean:*** Nominal values of world trade have disappointed of late. However, real trade has improved, increasing relative to global GDP. This suggests that the prices of traded goods and services are falling relative to the prices of non-traded goods and services.
- ***12-month outlook:*** The nominal value of global trade is likely to stagnate, with subdued commodity prices having a disproportionate impact on trade figures through the multiple counting of complex supply chains. Real trade data should fare better with growth in the world economy more consumer focused.

Total score for Global Production and Trade versus Global Industrial Production growth



Source: UBS, Haver

Global Production and trade

Production

| Indicators | Latest | 3-month Av. | Trend | Std. Dev. | Score |
|-------------------------------|--------|-------------|-------|-----------|-------|
| Global Industrial Prod., %y/y | -0.4 | -0.4 | 2.6 | 1.2 | 1.0 |
| Global PMI manuf. index | 50.1 | 50.2 | 51.3 | 1.1 | 1.0 |
| G3 manuf. new orders, %y/y | -2.0 | 0.5 | 1.4 | 10.6 | 3.0 |
| G7 leading ind., 6 mo. %chg | 0.6 | 0.7 | 1.8 | 1.8 | 2.0 |

| | | | | | |
|---------|--------|-----|---------|----------|---|
| | Weaker | | Neutral | Stronger | |
| | ← | | Score | → | |
| Average | 1 | 2 | 3 | 4 | 5 |
| | | 1.8 | | | |

Inventory*

| Indicators | Latest | 3-month Av. | Trend | Std. Dev. | Score |
|-----------------------------|--------|-------------|-------|-----------|-------|
| Global inventory/orders in. | -2.0 | -2.2 | -4.4 | 4.5 | 3.0 |
| Asia inventory/ship. index | 105.8 | 106.2 | 100.8 | 10.1 | 2.0 |
| Stocks/G7 GDP %y/y | 0.2 | 0.1 | 0.0 | 0.4 | 3.0 |
| US inventory to sales ratio | 1.4 | 1.4 | 1.3 | 0.0 | 1.0 |
| EU finished stocks balance | 6.1 | 6.1 | 7.9 | 4.4 | 3.0 |

*Higher inventory balances are negative for the growth outlook and are thus assigned lower relative scores.

| | | | | | |
|---------|--------|-----|---------|----------|---|
| | Weaker | | Neutral | Stronger | |
| | ← | | Score | → | |
| Average | 1 | 2 | 3 | 4 | 5 |
| | | 2.4 | | | |

World trade

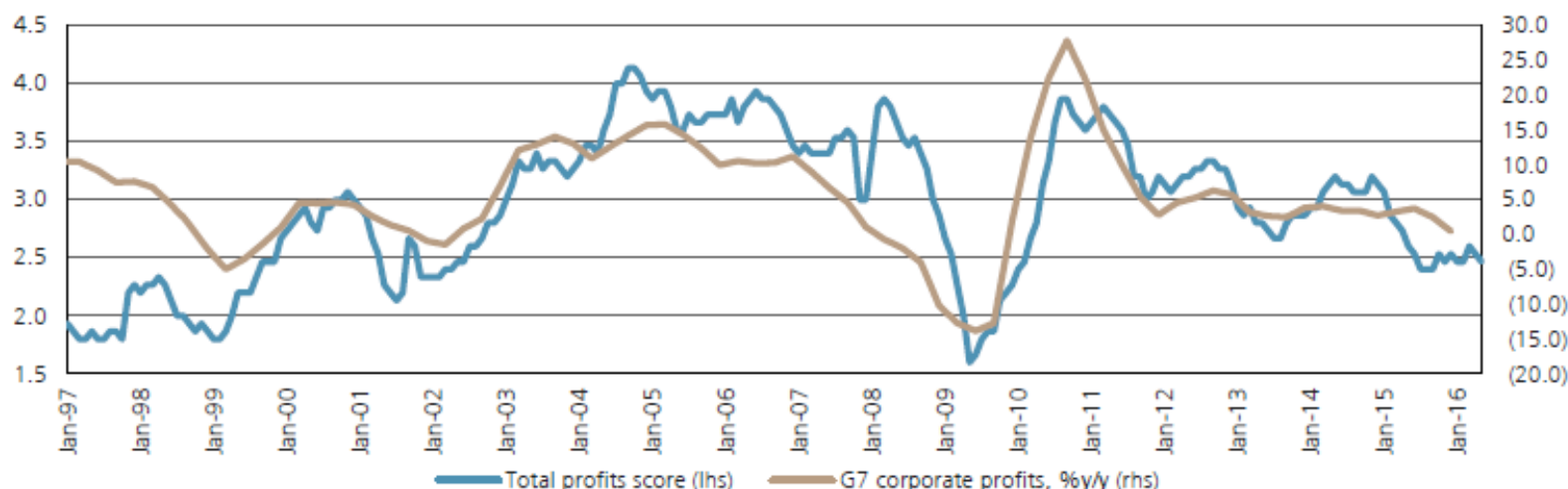
| Indicators | Latest | 3-month Av. | Trend | Std. Dev. | Score |
|-----------------------------|--------|-------------|-------|-----------|-------|
| World trade imports %y/y | 2.5 | 2.8 | 5.7 | 5.3 | 2.0 |
| World trade exports %y/y | 0.6 | 0.9 | 5.7 | 5.5 | 2.0 |
| Global PMI exp. orders ind. | 49.2 | 49.4 | 50.6 | 3.4 | 3.0 |
| US ISM export orders index | 52.5 | 50.3 | 53.1 | 4.2 | 2.0 |

| | | | | | |
|---------|--------|-----|---------|----------|---|
| | Weaker | | Neutral | Stronger | |
| | ← | | Score | → | |
| Average | 1 | 2 | 3 | 4 | 5 |
| | | 2.3 | | | |

Profits

- **What the numbers say:** Macroeconomic measures of profitability have been at weak levels in recent months partly due to soft productivity growth in the US. US corporate profits slowed as expected in Q415.
- **What they mean:** We think stronger growth of capital expenditures and employment will boost revenues in the period ahead, but at some cost to margins and asset turnover. Combined with a modest pick-up in US wage pressures US profit growth is apt to slow down further.
- **12-month outlook:** We expect US corporate profit growth to continue to slow over the next 12 months underscoring moderate global demand.

Total profits and G7 corporate profits



Profits

Profit share, % of GDP

| Indicator | Figure | Average | Trend | Dev. | Score |
|-------------------------|--------|---------|-------|------|-------|
| US corporate profits | 10.4 | 10.7 | 10.1 | 1.6 | 3.0 |
| Japan corporate profits | 13.9 | 14.0 | 8.9 | 2.8 | 5.0 |
| EU operating surplus | 40.5 | 40.6 | 41.5 | 0.6 | 1.0 |

| | | | | | |
|---------|----------------|---|---------|------------------|---|
| | Weaker profits | | Neutral | Stronger profits | |
| | ← | | Score | → | |
| | 1 | 2 | 3 | 4 | 5 |
| Average | | | 3.0 | | |

Growth and productivity

| Indicator | Figure | Average | Trend | Dev. | Score |
|--------------------------|--------|---------|-------|------|-------|
| G7 nominal GDP %y/y | -2.1 | -3.0 | 2.8 | 4.8 | 1.0 |
| G7 productivity, %y/y | 0.4 | 0.5 | 1.1 | 1.1 | 2.0 |
| US productivity, %y/y | 0.7 | 0.7 | 2.2 | 1.5 | 1.0 |
| EU productivity, %y/y | 0.8 | 0.8 | 0.8 | 1.3 | 3.0 |
| Japan productivity, %y/y | 0.4 | 0.7 | 0.8 | 2.1 | 3.0 |

| | | | | | |
|---------|----------------|-----|---------|------------------|---|
| | Weaker profits | | Neutral | Stronger profits | |
| | ← | | Score | → | |
| | 1 | 2 | 3 | 4 | 5 |
| Average | | 2.0 | | | |

Costs, capacity, policy* and earnings

| Indicator | Figure | Average | Trend | Dev. | Score |
|-----------------------------|--------|---------|-------|------|-------|
| G7 unit wage costs, %y/y | 1.6 | 1.6 | 1.5 | 1.0 | 3.0 |
| G7 non-unit wage costs %y/y | 0.7 | 1.4 | 2.4 | 1.3 | 4.0 |
| Global labour capacity, % | -0.2 | -0.1 | 0.2 | 0.4 | 4.0 |
| G7 Policy stance | -0.4 | -0.7 | -0.7 | 1.2 | 3.0 |
| G7 PPI, %y/y | -3.1 | -2.9 | 1.4 | 2.9 | 1.0 |
| US capacity utilisation, % | 75.4 | 75.3 | 78.1 | 3.8 | 2.0 |
| EPS Upgrade/downgrade ratio | -13.5 | -25.4 | -7.2 | 16.1 | 1.0 |

*Scoring system adjusted to reflect the impact on profitability, i.e. lower unit costs imply higher profitability

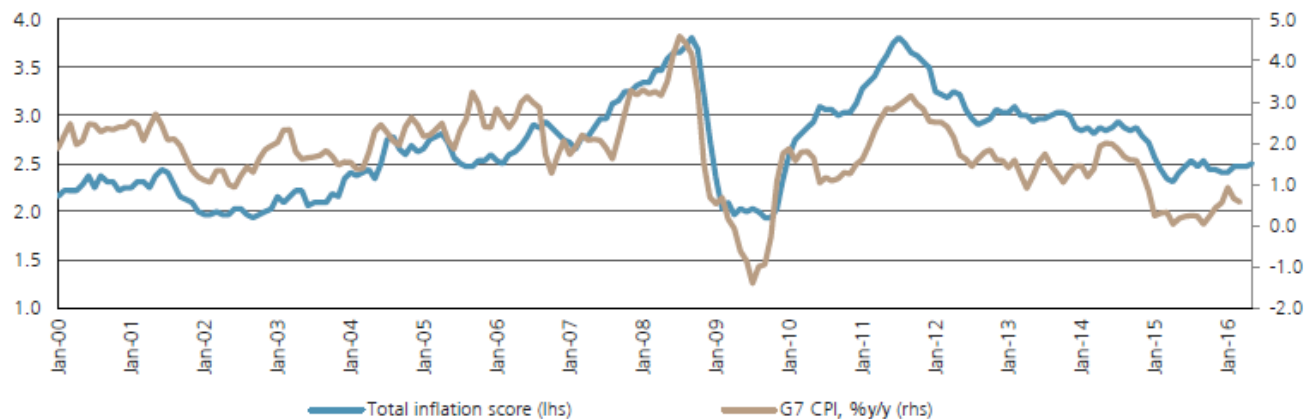
| | | | | | |
|---------|----------------|---|---------|------------------|---|
| | Weaker profits | | Neutral | Stronger profits | |
| | ← | | Score | → | |
| | 1 | 2 | 3 | 4 | 5 |
| Average | | | 2.6 | | |

Source (all Figures): UBS/Haver, OEF Note: Values outside 1 SD merit a '1' or '5' score, 1& 2 SD a '2' or '4', and a '3' otherwise.

Inflation

- **What the numbers say:** Commodity prices remain at soft levels but have begun to creep up recently. In general headline inflation remains subdued thanks to the continued decline in energy prices (led by fuel oil and motor fuel). The pick-up in US core price inflation has accelerated and been broad based; year-to-date, the core CPI has risen at a 2.5% annual rate, with gains across a wide variety of sectors. It is worth noting though that our global inflation surprise weighted index has surprised negatively since the beginning of April.
- **What they mean:** Headline inflation has been restrained by energy prices (core inflation will obviously be less impacted by the heavy fall in energy prices). This is disguising growing inflation pressures in economies for local reasons.
- **12-month outlook:** Core inflation has been high in over half the economies of the world, while the cross-country correlation of core inflation remains very low. This suggests that apart from oil inflation, this is becoming an increasing local issue rather than a global concept. Local forces, principally labour costs and administered prices, are expected to continue to influence underlying inflation.

Total inflation score and G7 CPI growth



Source: UBS, Haver

Inflation

Commodities

| Indicators | Latest | 3-month Av. | Trend | Std. Dev. | Score |
|--------------------------------|--------|-------------|-------|-----------|-------|
| Oil prices | 48.7 | 41.1 | 84.6 | 34.9 | 1.0 |
| CRB index: Metals | 662.4 | 624.1 | 793.6 | 283.8 | 2.0 |
| CRB index: Textiles & fibers | 271.1 | 271.0 | 275.6 | 28.1 | 3.0 |
| CRB ind: Raw indust. materials | 450.4 | 436.2 | 485.6 | 109.4 | 3.0 |
| CRB index: foodstuffs | 358.5 | 346.5 | 375.1 | 87.9 | 3.0 |
| CRB ind: Livestock & products | 479.2 | 454.9 | 501.3 | 124.2 | 3.0 |

| | | | | | |
|---------|-----------------|---|---------|------------------|---|
| | Lower inflation | | Neutral | Higher inflation | |
| | ← | | Score | → | |
| | 1 | 2 | 3 | 4 | 5 |
| Average | | | 2.5 | | |

Producer Prices

| Indicators | Latest | 3-month Av. | Target/Trend | Std. Dev. | Score |
|-------------------------|--------|-------------|--------------|-----------|-------|
| US PPI, %y/y | -1.3 | -2.1 | 2.1 | 3.1 | 1.0 |
| US core PPI, %y/y | 1.6 | 1.7 | 2.0 | 0.9 | 3.0 |
| Eurozone PPI, %y/y | -4.1 | -3.7 | -3.4 | 3.0 | 3.0 |
| Eurozone core PPI, %y/y | -1.1 | -0.8 | -0.5 | 1.8 | 3.0 |
| Japan PPI, %y/y | -4.2 | -3.9 | -2.9 | 2.5 | 3.0 |
| China PPI, %y/y | -4.3 | -4.8 | -5.4 | 4.2 | 3.0 |

| | | | | | |
|---------|-----------------|---|---------|------------------|---|
| | Lower inflation | | Neutral | Higher inflation | |
| | ← | | Score | → | |
| | 1 | 2 | 3 | 4 | 5 |
| Average | | | 2.7 | | |

Consumer Prices

| Indicators | Latest | 3-month Av. | Trend | Std. Dev. | Score |
|-------------------------|--------|-------------|-------|-----------|-------|
| US CPI, %y/y | 1.1 | 1.0 | 0.4 | 1.2 | 3.0 |
| US Core CPI | 2.1 | 2.2 | 2.0 | 0.2 | 5.0 |
| Eurozone CPI, %y/y | -0.2 | -0.1 | 0.1 | 0.9 | 3.0 |
| Eurozone core CPI, %y/y | 0.7 | 0.9 | 0.9 | 0.3 | 3.0 |
| Japan CPI, %y/y | 0.1 | 0.1 | 0.4 | 0.6 | 2.0 |
| China CPI, %y/y | 2.3 | 2.3 | 2.0 | 2.6 | 3.0 |

| | | | | | |
|---------|-----------------|---|---------|------------------|---|
| | Lower inflation | | Neutral | Higher inflation | |
| | ← | | Score | → | |
| | 1 | 2 | 3 | 4 | 5 |
| Average | | | 3.2 | | |

Source (all Figures): UBS/Haver, OEF Note: Values outside 1 SD merit a '1' or '5' score, 1& 2 SD a '2' or '4', and a '3' otherwise.

Inflation

Wages

| Indicators | Latest | 3-month Av. | Trend | Std. Dev. | Score |
|------------------------------|--------|-------------|-------|-----------|-------|
| US av. hourly earnings, %y/y | 2.5 | 2.5 | 2.3 | 0.8 | 3.0 |
| US ECI, %y/y | 1.9 | 1.9 | 2.1 | 0.8 | 3.0 |
| EU av. hourly earnings, %y/y | 1.6 | 1.7 | 1.7 | 0.8 | 3.0 |
| UK av. Weekly earnings, %y/y | 1.6 | 1.6 | 1.5 | 1.2 | 3.0 |
| G7 unit wage costs %y/y | 1.6 | 1.6 | 1.5 | 1.0 | 3.0 |
| China unit wage costs %y/y | 4.5 | 4.6 | 4.9 | 2.6 | 3.0 |
| India unit wage costs %y/y | 4.7 | 4.8 | 5.0 | 3.5 | 3.0 |

| | | | | | |
|---------|-----------------|---|---------|------------------|---|
| | Lower inflation | | Neutral | Higher inflation | |
| | ← | | Score | → | |
| | 1 | 2 | 3 | 4 | 5 |
| Average | | | 3.0 | | |

Capacity

| Indicators | Latest | 3-month Av. | Trend | Std. Dev. | Score |
|------------------------------|--------|-------------|-------|-----------|-------|
| Global output gap, % | -2.0 | -2.0 | 0.0 | 1.6 | 1.0 |
| Emerging econ. output gap, % | -1.2 | -1.1 | 0.0 | 1.9 | 2.0 |
| Global labour capacity, % | -0.2 | -0.1 | 0.2 | 0.4 | 2.0 |

| | | | | | |
|---------|-----------------|-----|---------|------------------|---|
| | Lower inflation | | Neutral | Higher inflation | |
| | ← | | Score | → | |
| | 1 | 2 | 3 | 4 | 5 |
| Average | | 1.7 | | | |

Inflation expectations

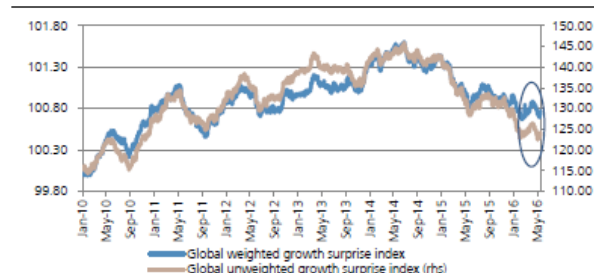
| Indicators | Latest | 3-month Av. | Trend | Std. Dev. | Score |
|------------------------------|--------|-------------|-------|-----------|-------|
| US Michigan 5-10yr exp. | 2.5 | 2.6 | 2.9 | 0.1 | 1.0 |
| EU inflat. expectations ind. | 2.9 | 2.9 | 15.3 | 9.9 | 1.0 |
| US inflation breakeven 5 yr | 1.7 | 1.7 | 2.2 | 0.4 | 1.0 |
| EU inflation breakeven 10 yr | 1.2 | 1.1 | 2.0 | 0.4 | 1.0 |

| | | | | | |
|---------|-----------------|---|---------|------------------|---|
| | Lower inflation | | Neutral | Higher inflation | |
| | ← | | Score | → | |
| | 1 | 2 | 3 | 4 | 5 |
| Average | 1.0 | | | | |

Source (all figures): UBS/Haver, OEF Note: Values outside 1 SD merit a '1' or '5' score, 1& 2 SD a '2' or '4', and a '3' otherwise.

Surprises and markets

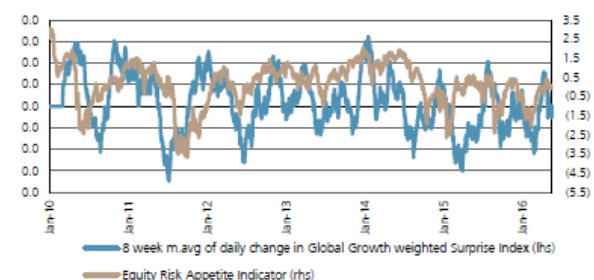
UBS global unweighted and weighted growth surprises



Source: UBS/Bloomberg

Our unweighted and weighted global growth surprise indices have begun to climb in recent weeks

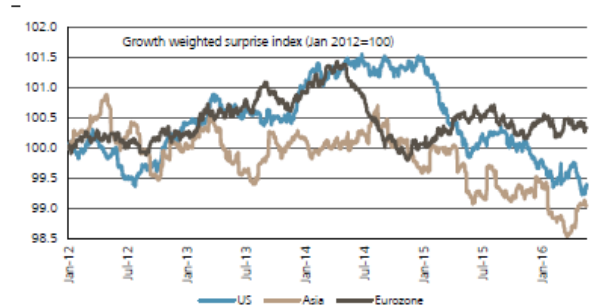
UBS global growth weighted 8 week change vs. Equity risk appetite indicator



Source: UBS/Bloomberg

Our global weighted 8 week moving average of the daily change remains closely correlated to the equity risk appetite since the beginning of 2016

Regional decomposition of global unweighted growth surprise indices

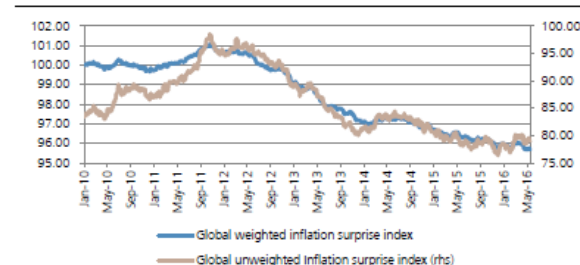


Source: UBS/Bloomberg

The dataflow from the Eurozone has been disappointing but in contrast data from Asia has perked up. The US has also begun to pick up over the last couple of weeks.

Surprises and markets

UBS global unweighted and weighted inflation surprises



Source: UBS/Bloomberg/Haver

Our global inflation weighted surprise indices have fallen slightly over the past month

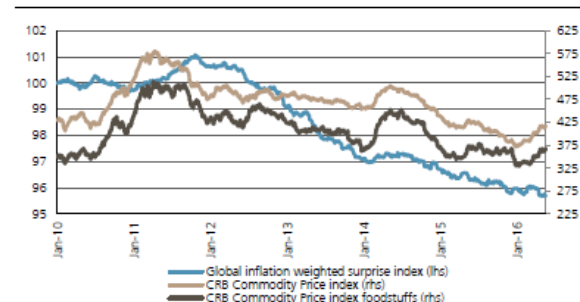
Global inflation weighted surprise versus Brent oil price



Source: UBS/Bloomberg

Our weighted inflation surprise index unsurprisingly has enjoyed tight correlations with the oil price up until recently

Global inflation weighted surprise index versus commodities



Source: UBS/Bloomberg

Correlations between our inflation weighted surprises and commodities have also widened in recent weeks

Economic forecasts

GDP growth

| %y/y | Weight* | 2014 | 2015F | 2016F | 2017F |
|----------------------|---------|------|-------|-------|-------|
| US | 0.00 | 2.4 | 2.4 | 1.5 | 2.5 |
| Canada | 0.00 | 2.5 | 1.2 | 1.9 | 2.5 |
| Japan | 0.00 | -0.1 | 0.6 | 0.8 | 0.4 |
| Western Europe | 0.00 | 1.3 | 1.8 | 1.7 | 1.8 |
| of which: | | | | | |
| Eurozone | 0.00 | 0.9 | 1.6 | 1.6 | 1.7 |
| UK | 0.00 | 2.9 | 2.3 | 2.0 | 2.3 |
| Switzerland | 0.00 | 1.9 | 0.9 | 1.0 | 1.5 |
| Asia ** | 0.00 | 6.3 | 6.0 | 5.8 | 5.7 |
| of which: | | | | | |
| China | 0.00 | 7.3 | 6.9 | 6.6 | 6.3 |
| India | 0.00 | 7.2 | 7.6 | 7.4 | 7.6 |
| Latin America | 0.00 | 1.0 | -0.5 | -0.9 | 1.8 |
| of which: | | | | | |
| Brazil | 0.00 | 0.1 | -3.8 | -3.5 | 0.8 |
| Emerging EMEA | 0.00 | 2.1 | 0.2 | 1.5 | 2.6 |
| of which: | | | | | |
| Russia | 0.00 | 0.7 | -3.7 | -0.6 | 1.5 |
| Rest of world | 0.00 | 3.5 | 3.5 | 3.0 | 3.3 |
| Advanced economies | 0.00 | 1.8 | 2.0 | 1.6 | 2.0 |
| Developing economies | 0.00 | 4.8 | 4.1 | 4.0 | 4.5 |
| WORLD | 1.00 | 3.4 | 3.2 | 2.9 | 3.4 |

Source: UBS estimates

*Based on purchasing-power-parity-adjusted GDP levels; **includes Australia and New Zealand

Inflation

| %y/y | Weight* | 2014 | 2015F | 2016F | 2017F |
|----------------|---------|------|-------|-------|-------|
| US | 0.00 | 1.6 | 0.1 | 1.6 | 2.5 |
| Canada | 0.00 | 1.9 | 1.1 | 1.7 | 1.9 |
| Japan | 0.00 | 2.8 | 0.8 | 0.2 | 0.8 |
| Western Europe | 0.00 | 0.8 | 0.1 | 0.3 | 1.5 |
| of which: | | | | | |
| Eurozone | 0.00 | 0.4 | 0.0 | 0.2 | 1.5 |
| UK | 0.00 | 1.5 | 0.0 | 0.6 | 1.5 |
| Switzerland | 0.00 | 0.0 | -1.1 | -0.3 | 0.4 |
| Asia ** | 0.00 | 3.2 | 2.3 | 2.5 | 2.6 |
| of which: | | | | | |
| China | 0.00 | 2.0 | 1.4 | 1.9 | 2.0 |
| India | 0.00 | 5.9 | 4.9 | 4.6 | 4.2 |
| Latin America | 0.00 | 10.9 | 19.0 | 19.1 | 12.6 |
| of which: | | | | | |
| Brazil | 0.00 | 6.4 | 10.7 | 6.4 | 4.7 |
| Emerging EMEA | 0.00 | 6.5 | 10.2 | 7.1 | 5.9 |
| of which: | | | | | |
| Russia | 0.00 | 7.8 | 15.5 | 7.2 | 5.4 |

Source: UBS estimates

*Based on purchasing-power-parity-adjusted GDP levels; **includes Australia and New Zealand

Interest rate forecasts

| % | 26-May-16 | Dec-16 | Dec-17 |
|---------------------|-----------|--------|--------|
| US | | | |
| Fed Funds Rate | 0.38 | 0.88 | 1.88 |
| 10 year yield | 1.84 | 2.00 | 2.30 |
| Canada | | | |
| Bank of Canada Rate | 0.50 | 0.50 | 1.25 |
| 10 year yield | 1.50 | - | - |
| Japan | | | |
| Call Rate | -0.06 | -0.30 | -0.30 |
| 10 year yield | -0.08 | 0.20 | 0.30 |
| Germany | | | |
| Repo Rate | 0.00 | 0.00 | 0.00 |
| 10 year yield | 0.27 | 1.10 | 1.50 |
| Sweden | | | |
| Repo Rate | -0.50 | -0.50 | -0.15 |
| 10 year yield | 0.64 | 1.30 | 2.20 |
| UK | | | |
| Repo Rate | 0.50 | 0.75 | 1.50 |
| 10 year yield | 1.73 | 1.80 | 2.05 |
| Switzerland | | | |
| 3 month rate | -0.73 | -0.80 | -0.50 |
| 10 year yield | -0.27 | 0.15 | 0.45 |
| Australia | | | |
| Cash Rate | 1.75 | 1.50 | 1.50 |
| 10 year yield | 2.64 | 2.30 | 2.40 |
| New Zealand | | | |
| Cash Rate | 2.25 | 2.00 | 2.75 |
| 10 year yield | 3.13 | 2.70 | 3.00 |

Source: UBS estimates

Foreign exchange rates

| | 26-May-16 | Dec-16 | Dec-17 |
|---------|-----------|--------|--------|
| EUR/USD | 1.12 | 1.16 | 1.20 |
| USD/JPY | 110.00 | 112.00 | 114.00 |
| EUR/JPY | 122.00 | 129.92 | 136.80 |
| USD/RMB | 6.55 | 6.65 | 7.00 |
| GBP/USD | 1.45 | 1.59 | 1.60 |
| EUR/GBP | 0.77 | 0.73 | 0.75 |
| USD/CHF | 0.99 | 0.99 | 1.00 |
| EUR/CHF | 1.11 | 1.15 | 1.20 |
| USD/CAD | 1.32 | 1.25 | 1.23 |
| AUD/USD | 0.72 | 0.68 | 0.70 |
| NZD/USD | 0.67 | 0.63 | 0.65 |
| EUR/SEK | 9.34 | 9.50 | 9.60 |
| EUR/DKK | 7.44 | 7.46 | 7.46 |
| EUR/NOK | 9.38 | 9.00 | 8.75 |

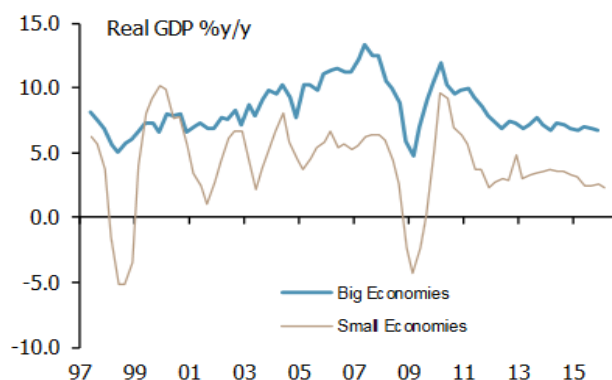
Source: UBS estimates

Asian Economic Perspective

Gross Domestic Product (GDP)

- **Why this matters:** GDP is the broadest measure of economic activity. It is strongly correlated with the profit cycle and provides important clues about inflation and the direction of policy. Strong GDP often suggests policy will tighten; weak GDP implies a policy bias for pro-growth. Shifts in macro policies affected markets.

Figure 3: Real GDP growth (small versus big)



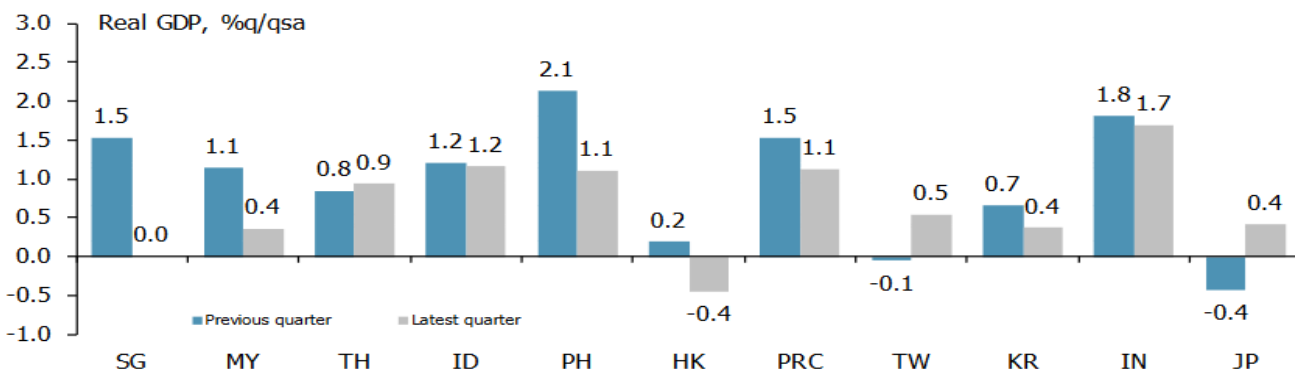
Source: CEIC, UBS. Note: Aggregated using 2007 nominal GDP fixed weight, big economies include China, India, and Indonesia.

Figure 4: Real GDP growth %y/y

| | 2015 | 2016E | 2017E | 3Q15 | 4Q15 | 1Q16 |
|-------------|------|-------|-------|------|------|------|
| China | 6.9 | 6.6 | 6.3 | 6.9 | 6.8 | 6.7 |
| Hong Kong | 2.4 | 0.6 | 1.2 | 2.3 | 1.9 | 0.8 |
| India | 7.6 | 7.4 | 7.6 | 7.7 | 7.3 | -- |
| Indonesia | 4.8 | 4.7 | 4.6 | 4.7 | 5.0 | 4.9 |
| Japan | 0.6 | 0.8 | 0.4 | 1.8 | 0.7 | 0.0 |
| Korea | 2.6 | 2.3 | 2.3 | 2.8 | 3.1 | 2.7 |
| Malaysia | 5.0 | 3.6 | 3.4 | 4.7 | 4.5 | 4.2 |
| Philippines | 5.9 | 5.5 | 5.1 | 6.2 | 6.5 | 6.9 |
| Singapore | 2.0 | 1.5 | 1.4 | 1.8 | 1.8 | 1.8 |
| Taiwan | 0.7 | 2.0 | 1.8 | -0.8 | -0.5 | -0.8 |
| Thailand | 2.8 | 2.8 | 2.5 | 2.9 | 2.8 | 3.2 |

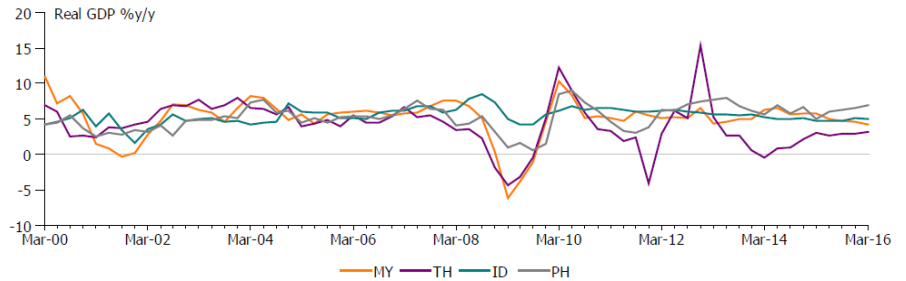
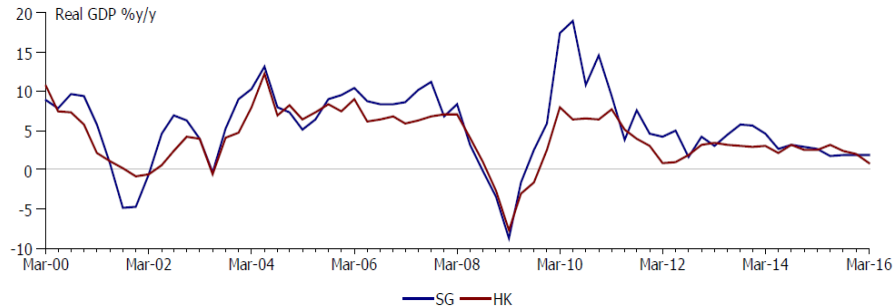
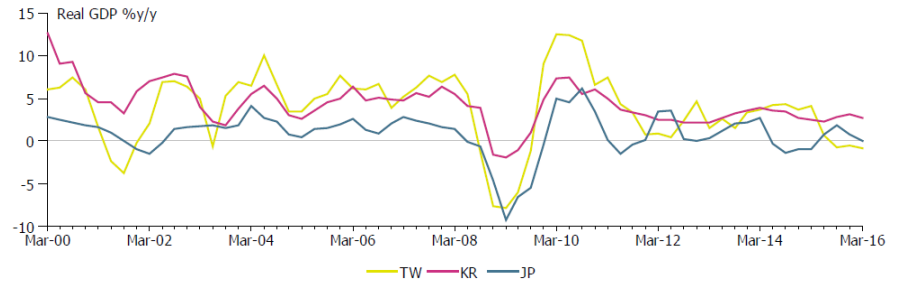
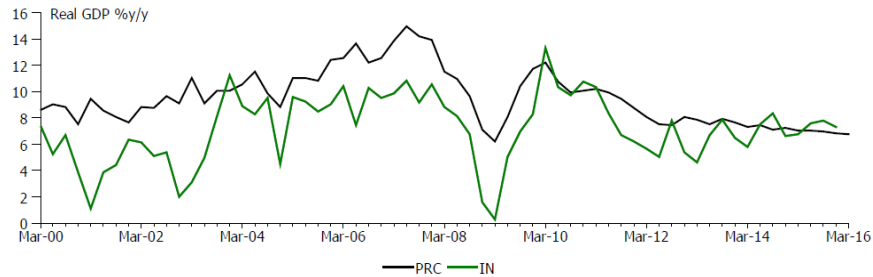
Source: CEIC and UBS estimates

Figure 5: Latest sequential GDP growth (All economics as of 1Q16, except India as of 4Q15)**



Source: CEIC, UBS. **Japan's consumption tax hike front loaded consumption in 1Q, which then was given back in 2Q.

GDP, continued



Source for all charts on this page: CEIC, UBS

GDP: Contribution to Growth

Figure 6: China

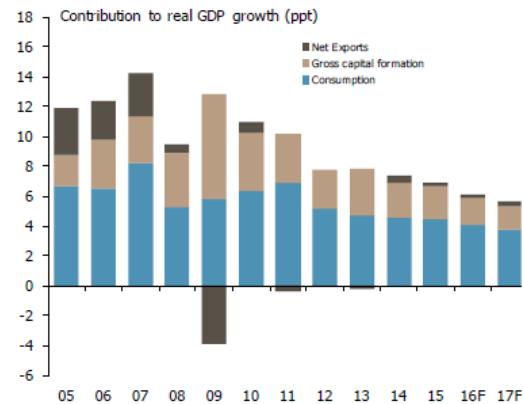


Figure 7: Hong Kong

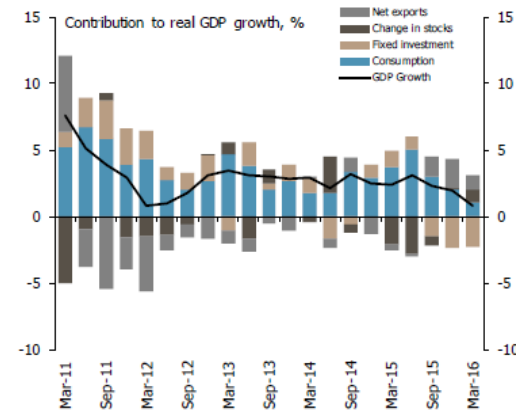


Figure 8: India

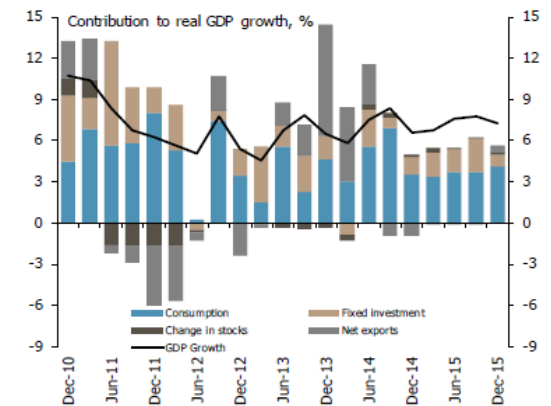


Figure 9: Indonesia

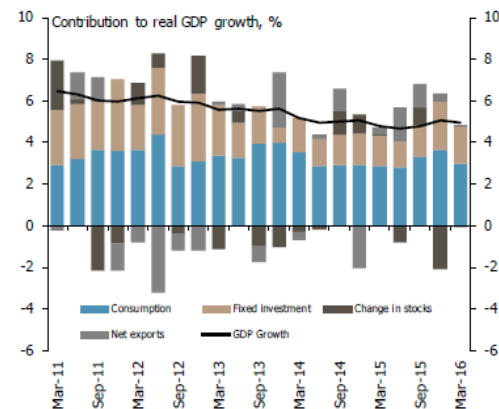


Figure 10: Japan

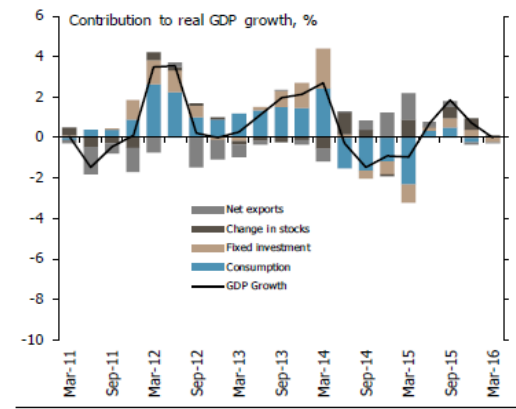
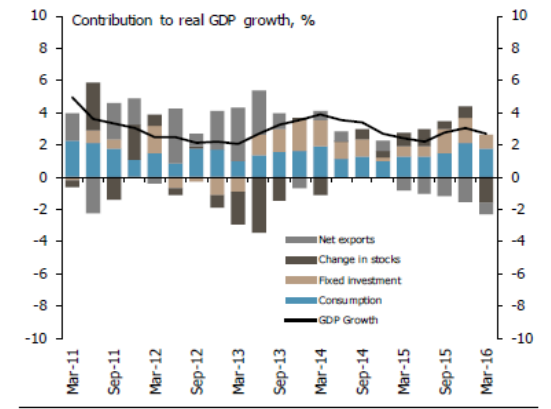


Figure 11: Korea



Source for all charts on this page: CEIC, UBS

GDP: Contribution to Growth

Figure 12: Malaysia

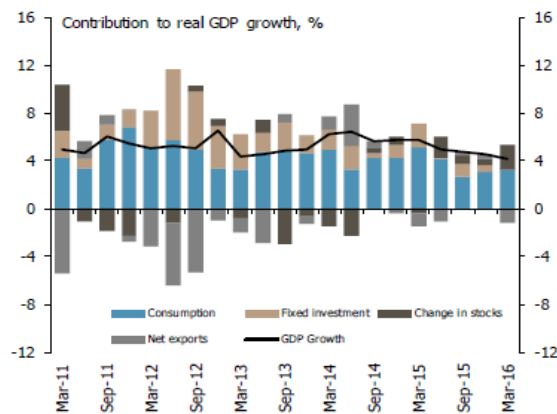


Figure 13: Philippines

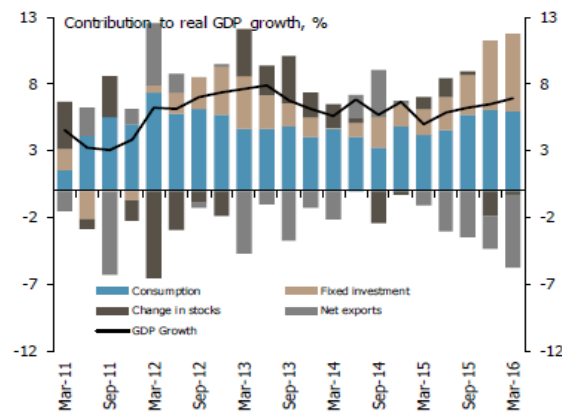


Figure 14: Singapore

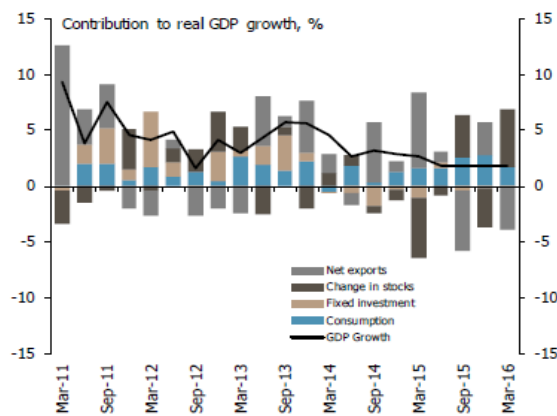


Figure 15: Taiwan

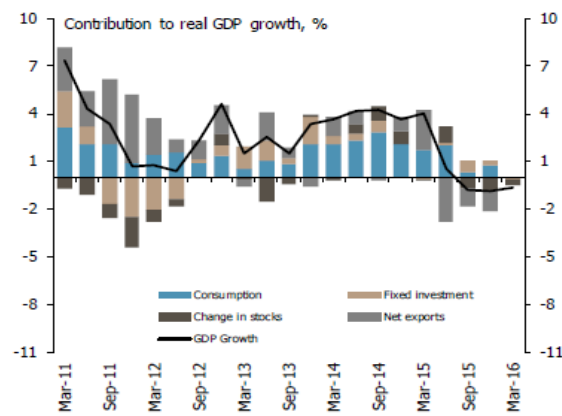
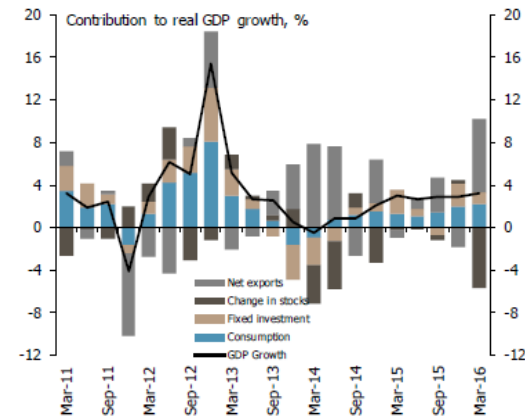


Figure 16: Thailand

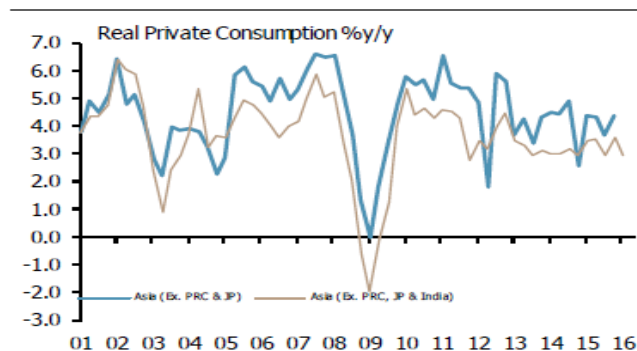


Source for all charts on this page: CEIC, UBS

Consumption

- Why this matters: Private consumption accounts for 50-60% of GDP of Asian GDP. Hence small changes in consumption tend to have a large impact on GDP. That in turn is relevant for profits and policy.

Figure 17: Overall Real Private Consumption growth



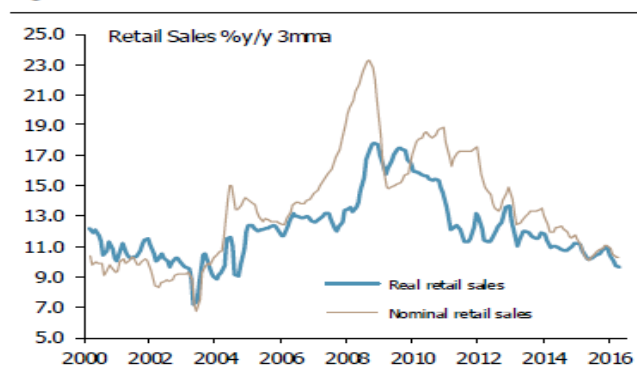
Source: CEIC, UBS. Note: Aggregated using 2007 nominal GDP fixed weight.

Figure 18: Real private consumption growth %y/y

| | 2015 | 2016E | 2017E | 3Q15 | 4Q15 | 1Q16 |
|-------------|------|-------|-------|------|------|------|
| China* | 10.6 | -- | -- | 10.5 | 10.9 | 9.7 |
| Hong Kong | 4.7 | 0.1 | 1.6 | 4.4 | 2.7 | 1.1 |
| India | 7.4 | 7.8 | 7.8 | 5.6 | 6.4 | -- |
| Indonesia | 5.0 | 4.9 | 4.6 | 5.0 | 4.9 | 4.9 |
| Japan | -1.2 | 0.5 | -0.2 | 0.4 | -1.0 | -0.6 |
| Korea | 2.2 | 2.2 | 1.8 | 2.2 | 3.3 | 2.1 |
| Malaysia | 6.0 | 6.7 | 4.7 | 4.1 | 4.9 | 5.3 |
| Philippines | 6.3 | 5.0 | 4.4 | 6.1 | 6.5 | 7.0 |
| Singapore | 4.5 | 2.1 | 1.6 | 4.6 | 5.5 | 3.0 |
| Taiwan | 2.3 | 2.1 | 2.0 | 0.5 | 1.5 | 1.8 |
| Thailand | 2.1 | 2.3 | 2.2 | 1.8 | 2.6 | 2.3 |

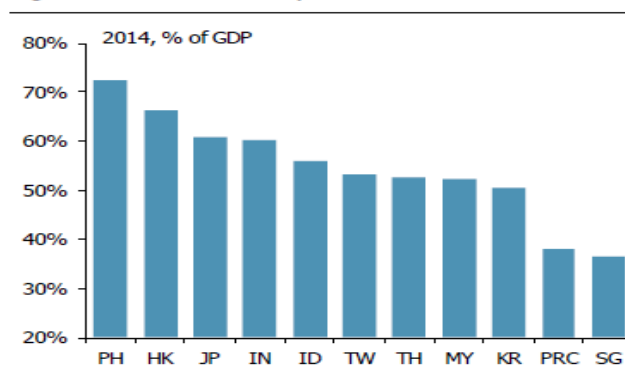
Source: CEIC and UBS estimates. Note: China only reports annual nominal GDP breakdown by expenditure. Chinese data above is real retail sales (nominal sales adjusted by RPI), a frequent proxy to gauge Chinese consumption spending. For real consumption, UBS estimated the annual growth rate in 2015 at 7.5%.

Figure 19: China – nominal and real retail sales



Source: CEIC and UBS calculations. Note: China's retail sales of consumer goods cover both wholesale and retail trade. Real retail sales are nominal sales adjusted by RPI (retail price inflation).

Figure 20: Private consumption, % of GDP



Source: CEIC and UBS calculations

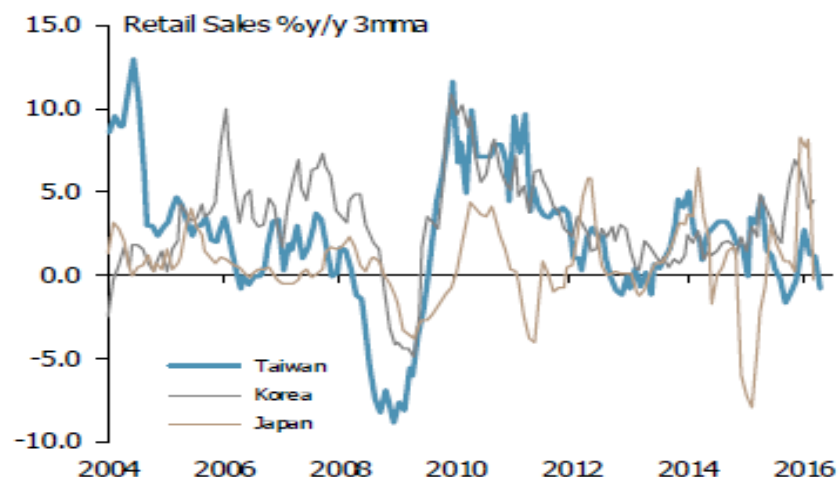
Consumption Indicator: Retail Sales

Figure 21: India—real retail sales



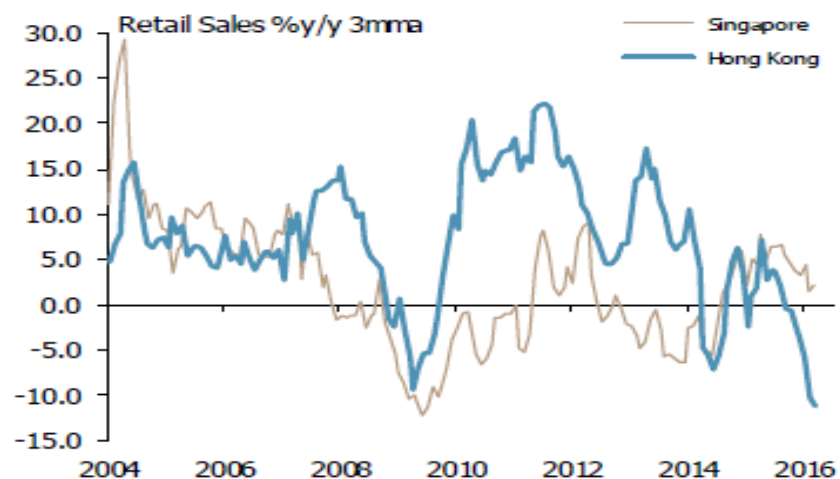
Source: CEIC and UBS calculations

Figure 22: North Asia—real retail sales



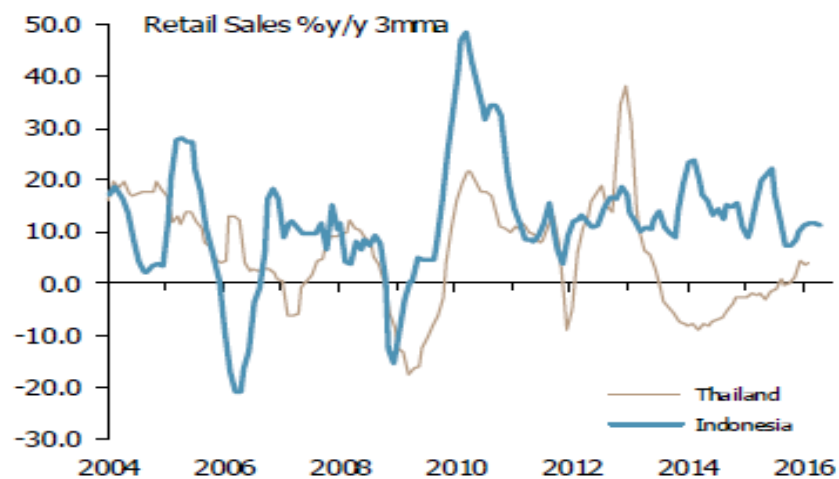
Source: CEIC and UBS calculations

Figure 23: Hong Kong and Singapore—real retail sales



Source: CEIC and UBS calculations

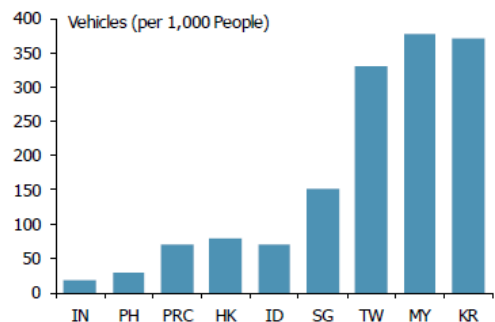
Figure 24: ASEAN—nominal retail sales



Source: CEIC and UBS calculations

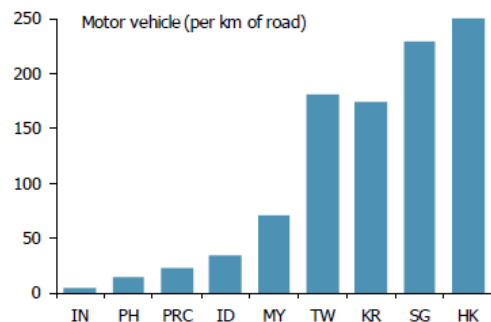
Consumption Indicator: Auto Sales

Figure 25: Car ownership (per 1,000 people)



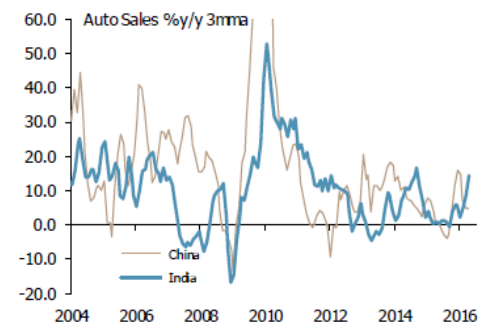
Source: World Bank, CEIC and UBS calculations. 2009 data for India; 2010 data for Philippines; 2015 data for Taiwan and 2011 for the rest.

Figure 26: Motor vehicles (per km of road)



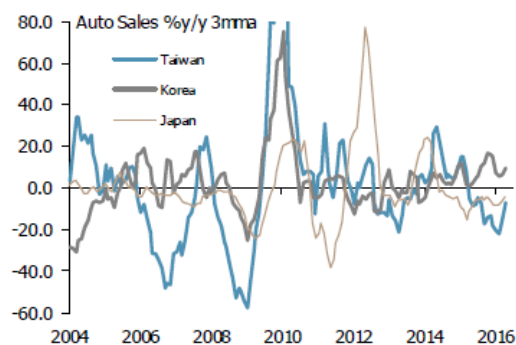
Source: World Bank, CEIC and UBS calculations. 2007 data for Philippines, 2009 data for India, 2014 for Taiwan and 2011 for the rest.

Figure 27: China and India—car sales



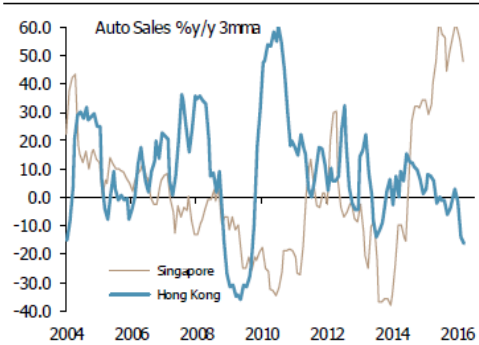
Source: CEIC and UBS calculations

Figure 28: North Asia—car sales



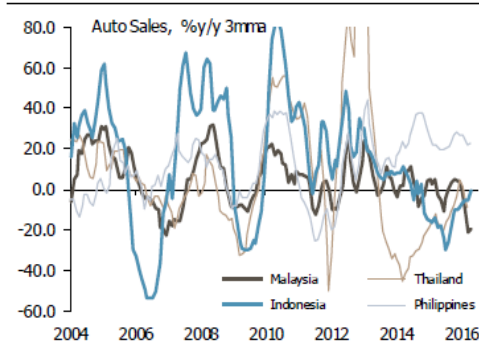
Source: CEIC and UBS calculations

Figure 29: Hong Kong and Singapore—car sales



Source: CEIC and UBS calculations

Figure 30: ASEAN—car sales

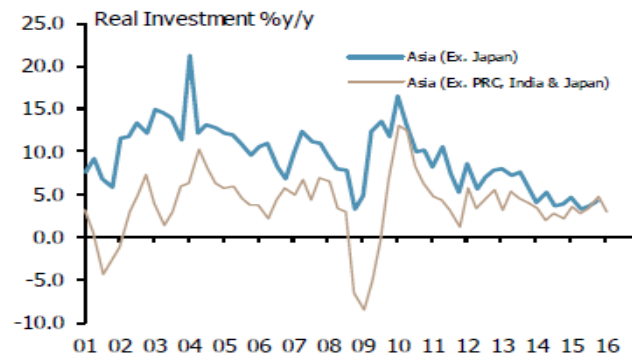


Source: CEIC and UBS calculations

Investment

- **Why this matters:** High savings and investment ratios have long been the key ingredient to high growth in Asia. The investment to GDP ratio averages around 25% of GDP for the region. Investment is a key driver of employment and income growth. It can have a larger impact on the economic cycle because it is volatile.

Figure 31: Fixed investment growth



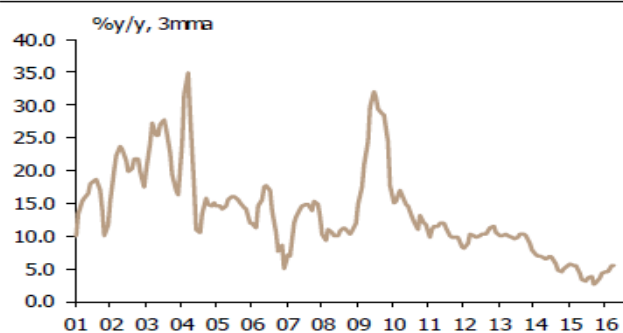
Source: CEIC, UBS. Note: Aggregated using 2007 nominal GDP fixed weight.

Figure 32: Real fixed investment growth, %y/y

| | 2015 | 2016E | 2017E | 3Q15 | 4Q15 | 1Q16 |
|-------------|------|-------|-------|------|------|-------|
| China* | 3.8 | -- | -- | 2.7 | 4.3 | 5.5 |
| Hong Kong | -2.0 | -4.4 | 1.9 | -6.2 | -9.4 | -10.1 |
| India | 5.3 | 5.0 | 7.0 | 7.6 | 2.8 | -- |
| Indonesia | 5.1 | 5.2 | 4.3 | 4.8 | 6.9 | 5.6 |
| Japan | 0.0 | 0.1 | 0.0 | 2.4 | 1.8 | -1.0 |
| Korea | 3.8 | 1.6 | 2.7 | 5.1 | 5.4 | 3.1 |
| Malaysia | 3.7 | 3.8 | 3.8 | 4.2 | 2.7 | 0.1 |
| Philippines | 15.2 | 7.3 | 2.1 | 13.9 | 24.2 | 25.6 |
| Singapore | -1.0 | 1.6 | 1.5 | -1.6 | -0.7 | -0.5 |
| Taiwan | 1.5 | 1.3 | 0.3 | 3.2 | 1.4 | -0.5 |
| Thailand | 4.7 | 4.8 | 4.4 | -2.6 | 9.4 | 4.7 |

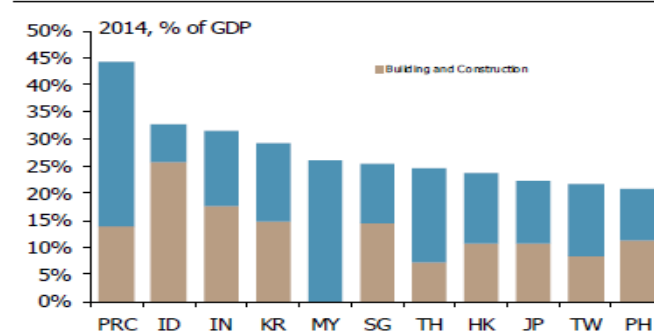
Source: CEIC and UBS estimates. * Note: China only reports annual nominal GDP breakdown by expenditure. Chinese data above is real fixed asset investment estimated by UBS China team. For headline real fixed investment, UBS estimated the annual growth rate in 2015 at 6.3%.

Figure 33: China's real FAI*



Source: CEIC and UBS calculations. * UBS calculated. The series is adjusted for prices; and excludes the non-capital 'asset trading' transactions such as land purchases.

Figure 34: Fixed investment, % of GDP



Source: CEIC and UBS calculations. Note: GDP by expenditure. But for China and Malaysia, there is no further breakdown of fixed investment. India data as of 2012.

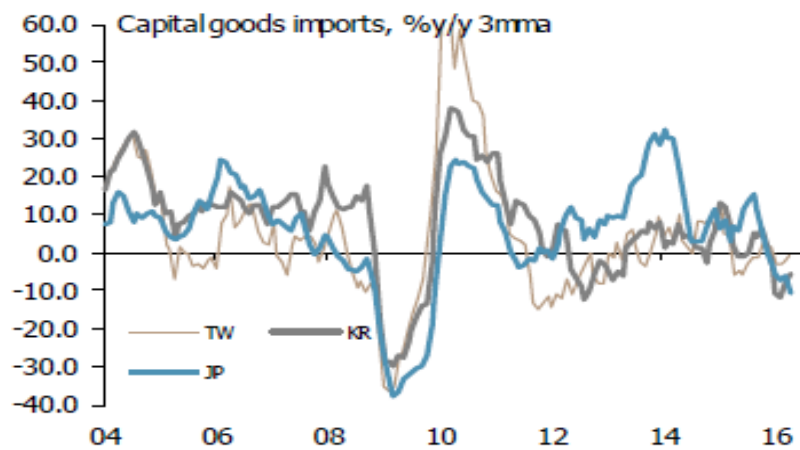
Investment Indicator: Capital Goods Imports

Figure 35: China



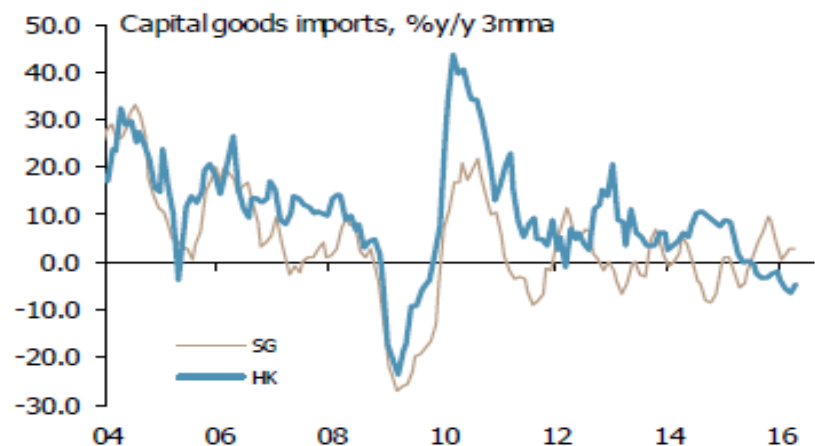
Source: CEIC and UBS calculations

Figure 36: North Asia



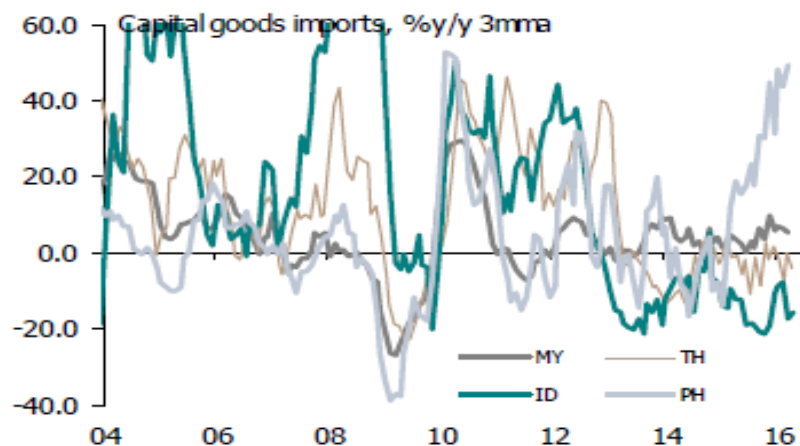
Source: CEIC and UBS calculations

Figure 37: Singapore and Hong Kong



Source: CEIC and UBS calculations

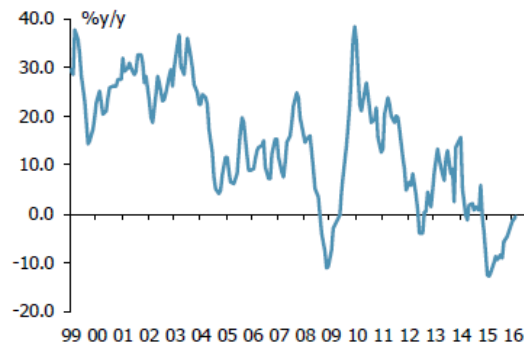
Figure 38: ASEAN



Source: CEIC and UBS calculations

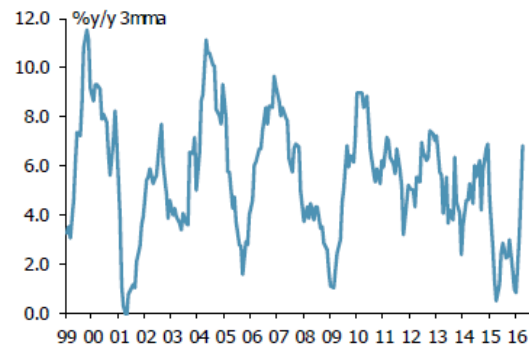
Investment Indicator: Construction Indicators

Figure 39: China: UBS construction index



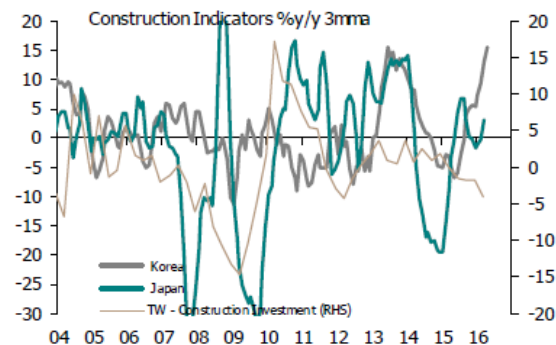
Source: CEIC and UBS calculations

Figure 40: India: Infrastructure industries index



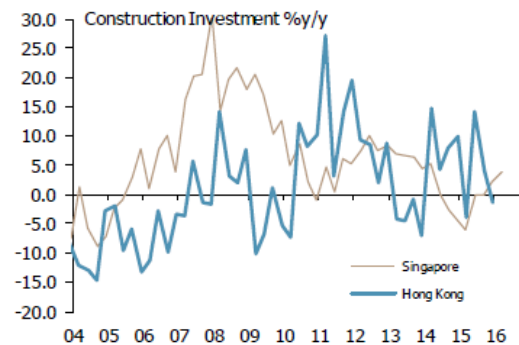
Source: CEIC and UBS calculations

Figure 41: North Asia



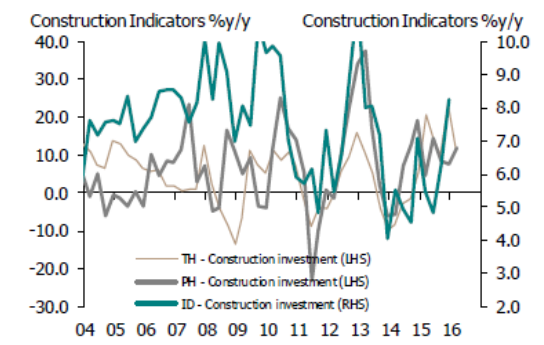
Source: CEIC and UBS calculations. Taiwan: producer shipment construction index; Korea: UBS estimate of construction; Japan: housing starts.

Figure 42: Singapore and Hong Kong



Source: CEIC and UBS calculations

Figure 43: ASEAN

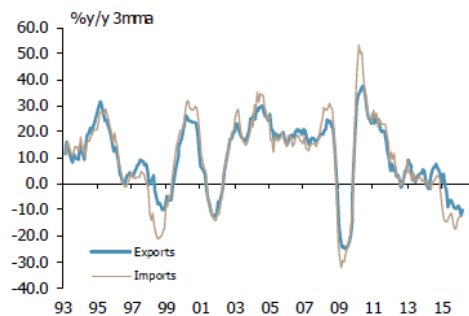


Source: CEIC and UBS calculations

Trade

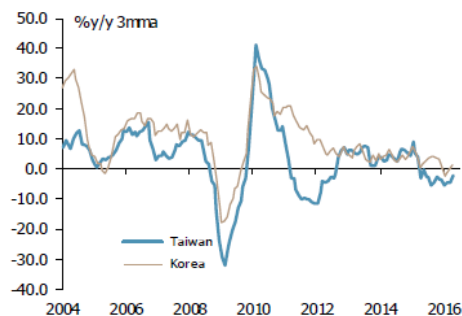
- **Why this matters:** Exports are an important source of income for Asia and a primary driver for Asia's business cycle. They are strongly correlated with the profit cycle and the performance of Asian equity markets.

Figure 44: Asian trade (in US\$ terms)



Source: CEIC, UBS

Figure 45: Export volume (Korea and Taiwan)



Source: CEIC, UBS. Note: Data adjusted for Chinese New Year.

Figure 46: Seasonally adjusted exports*



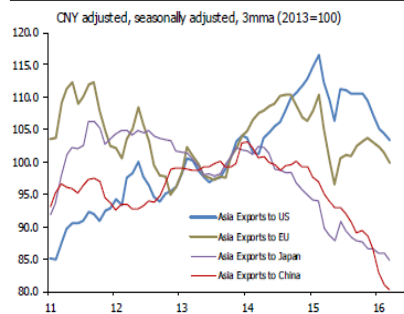
Source: CEIC, UBS. Note: Data adjusted for Chinese New year; exports in USD

Figure 47: Merchandise exports %y/y

| | 2015 | 2016E | 2017E | Q315 | Q415 | Q116 | Latest |
|-------------|-------|-------|-------|-------|-------|-------|--------|
| China | -2.9 | -2.0 | 2.0 | -5.9 | -5.2 | -9.7 | -2.0 |
| Hong Kong | -1.8 | -4.5 | 1.8 | -4.1 | -2.7 | -7.0 | -2.4 |
| India | -15.9 | -5.0 | 4.0 | -18.3 | -19.2 | -8.2 | -6.6 |
| Indonesia | -14.6 | -5.4 | 6.2 | -16.2 | -18.8 | -14.0 | -12.6 |
| Japan | -8.7 | 13.3 | 3.8 | -10.3 | -8.5 | -4.5 | -1.4 |
| Korea | -8.0 | -4.6 | 2.4 | -9.5 | -12.0 | -13.3 | -6.0 |
| Malaysia | -15.3 | -13.1 | 4.0 | -18.6 | -14.8 | -9.6 | -5.1 |
| Philippines | -5.6 | 2.8 | 3.0 | -7.7 | -5.0 | -8.4 | -15.1 |
| Singapore | -14.5 | -3.8 | 7.8 | -17.2 | -13.3 | -14.5 | -8.0 |
| Taiwan | -10.8 | -3.0 | 4.5 | -14.0 | -13.9 | -12.1 | -6.5 |
| Thailand | -5.8 | 0.7 | 3.9 | -5.3 | -8.1 | 0.9 | -8.0 |

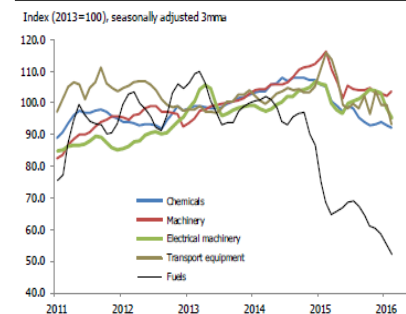
Source: CEIC, UBS estimates

Figure 48: Exports by destinations



Source: CEIC, UBS. Asia includes China, HK, Thailand, Singapore, Korea and Taiwan. The rest are excluded for long time lag.

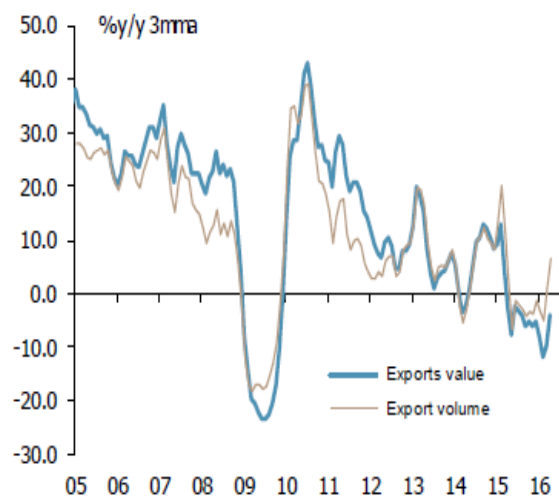
Figure 49: Exports by products



Source: CEIC, UBS. Export breakdown based on SITC classification. Asia include China, HK, Thailand, Korea and Taiwan, where timely and monthly SITC trade breakdown is available.

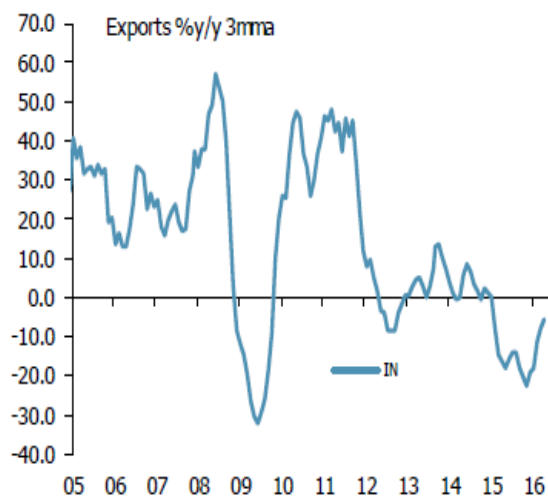
Exports: Country Trends

Figure 50: China: Export value (US\$) and volume



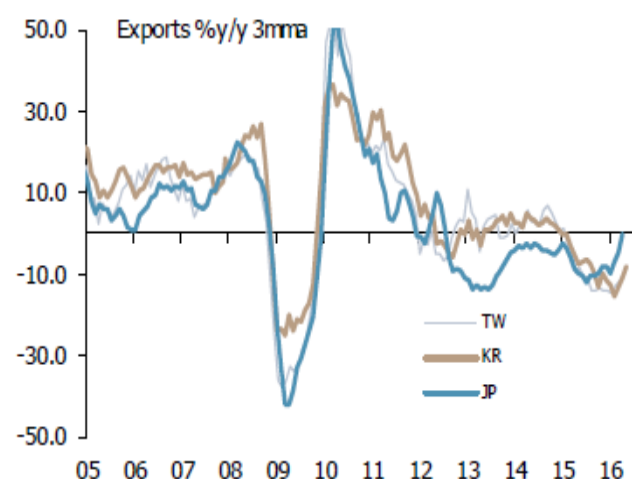
Source: CEIC and UBS calculations. Note: Data adjusted for Chinese New Year.

Figure 51: India



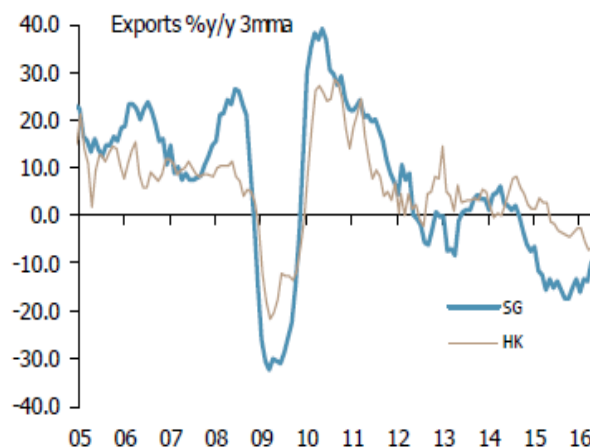
Source: CEIC and UBS calculations. Note: Export in US\$ terms.

Figure 52: North Asia



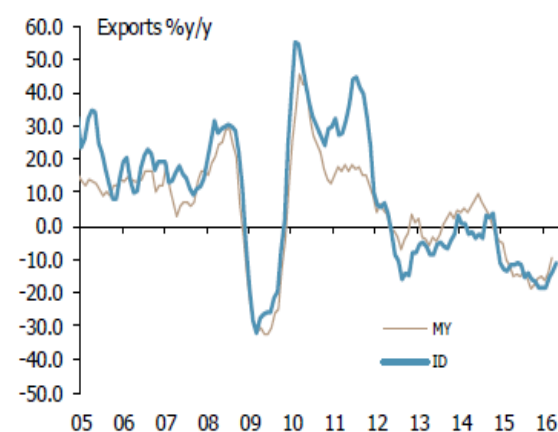
Source: CEIC and UBS calculations. Note: Export in US\$ terms.

Figure 53: Singapore and Hong Kong



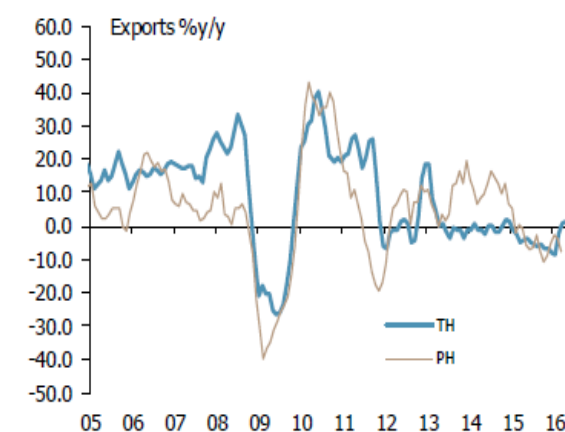
Source: CEIC and UBS calculations. Note: Export in US\$ terms.

Figure 54: Malaysia and Indonesia



Source: CEIC and UBS calculations. Note: Export in US\$ terms.

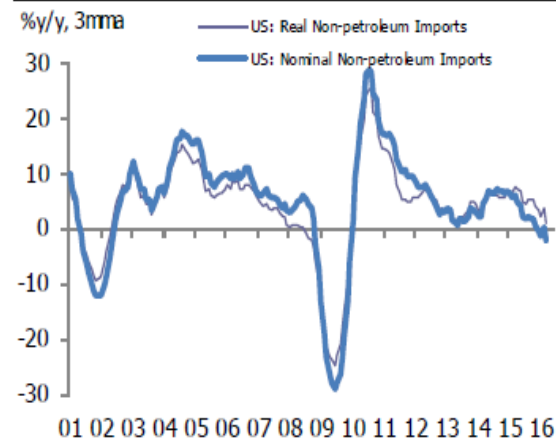
Figure 55: Thailand and Philippines



Source: CEIC and UBS calculations. Note: Export in US\$ terms.

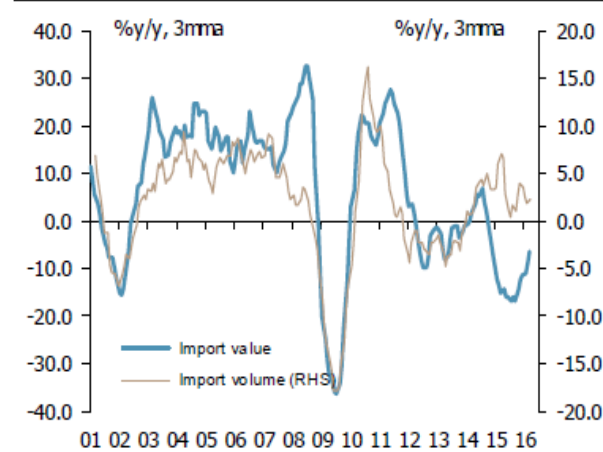
Trade: Global Backdrop

Figure 56: US non-petroleum imports



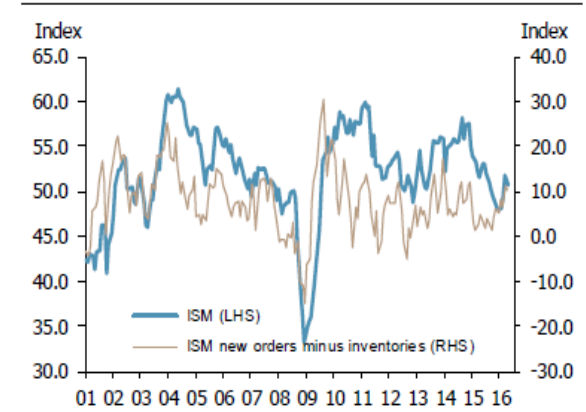
Source: CEIC and UBS calculations

Figure 57: EU import demand



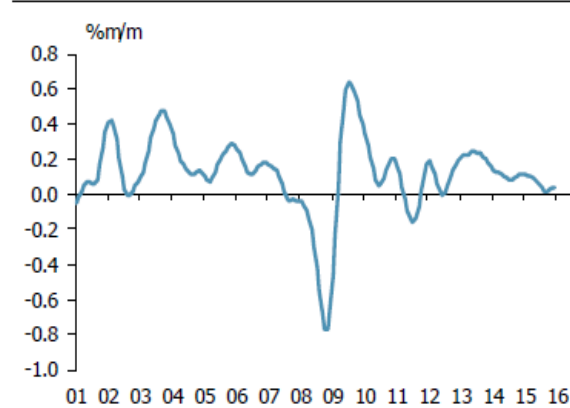
Source: CEIC and UBS calculations

Figure 58: US ISM index



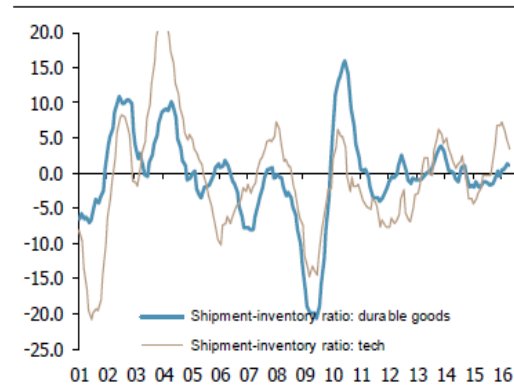
Source: CEIC and UBS calculations

Figure 59: G7 Leading indicator



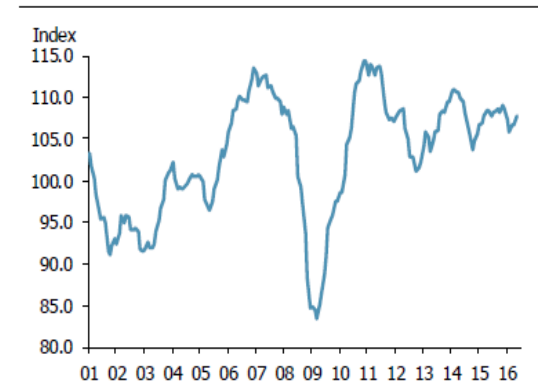
Source: CEIC and UBS calculations

Figure 60: US shipment inventory ratio



Source: CEIC and UBS calculations

Figure 61: Germany's IFO

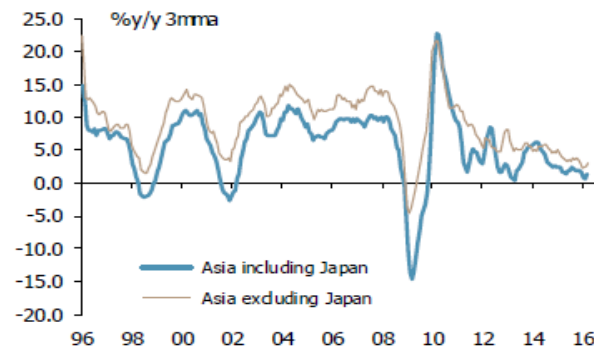


Source: CEIC and UBS calculations

Industrial Production

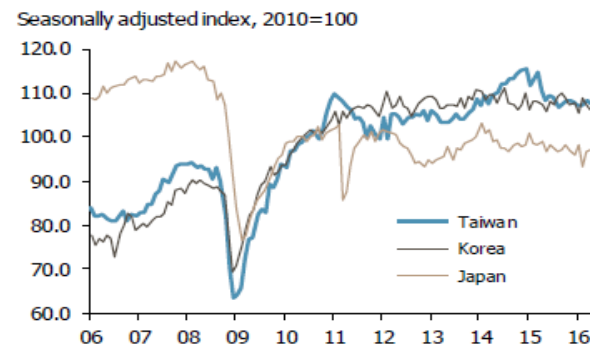
- **Why this matters:** The industrial production cycle tells us a great deal about the profit cycle for manufacturing and the employment cycle. Hence, this should be tracked closely to assess if profit margins are improving, employment is gaining, and pressure on producer prices.

Figure 62: Asian industrial production growth



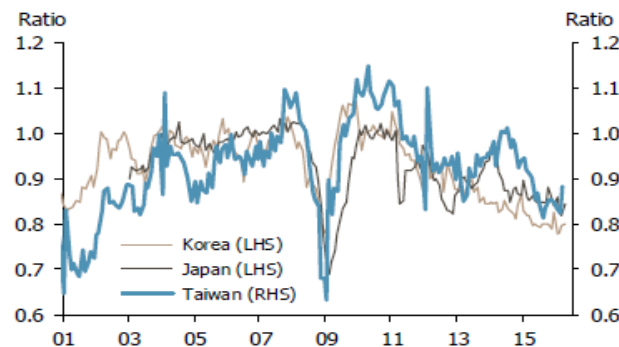
Source: CEIC, UBS. Note: Aggregate series calculated using 2007 nominal GDP fixed weight.

Figure 63: Seasonally adjusted production index



Source: CEIC and UBS calculations. Official seasonally adjusted index.

Figure 64: Manufacturing shipment to inventory ratio



Source: CEIC, UBS. Note: seasonally adjusted ratio.

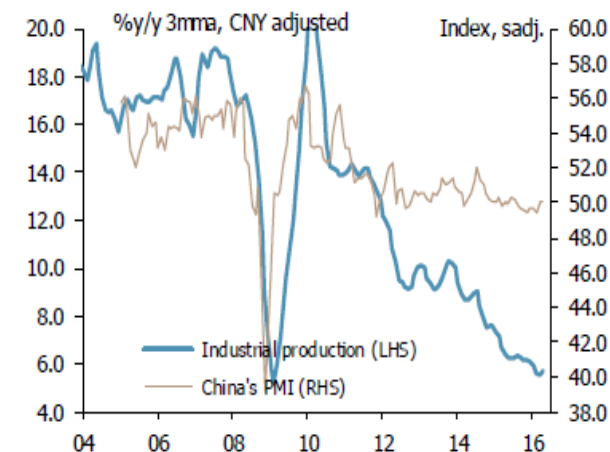
Figure 65: Manufacturing, % of GDP



Source: CEIC, UBS. Note: GDP breakdown by industry. HK and Japan data as of 2013.

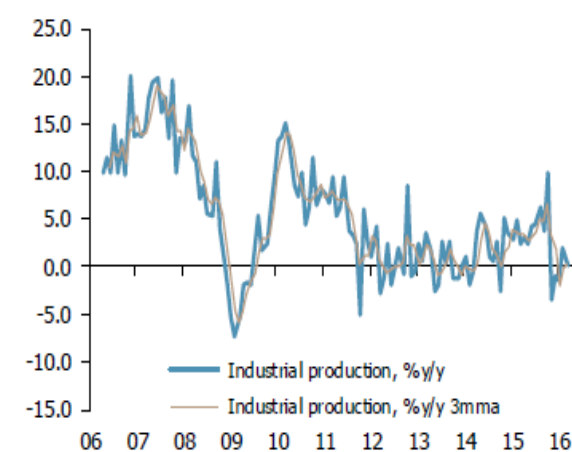
Industrial Production: Country Trends

Figure 66: China: PMI and industrial production



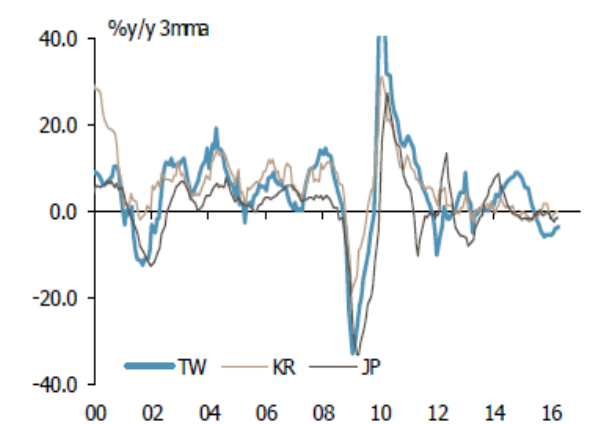
Source: CEIC and UBS calculations. Note: China's PMI seasonally adjusted by UBS, using X-12.

Figure 67: India: Industrial production



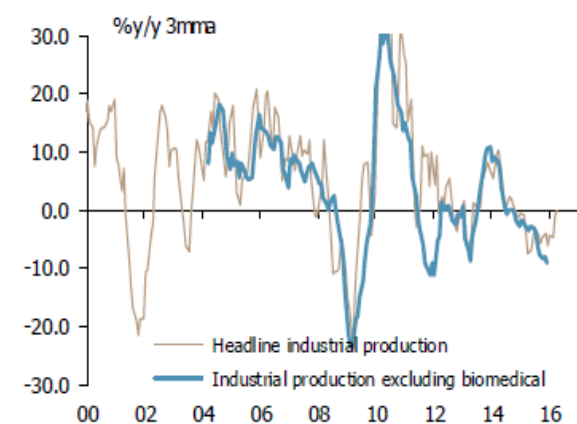
Source: CEIC and UBS calculations

Figure 68: North Asia



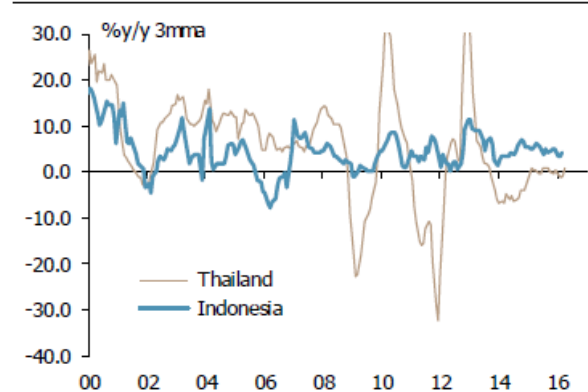
Source: CEIC and UBS calculations

Figure 69: Singapore



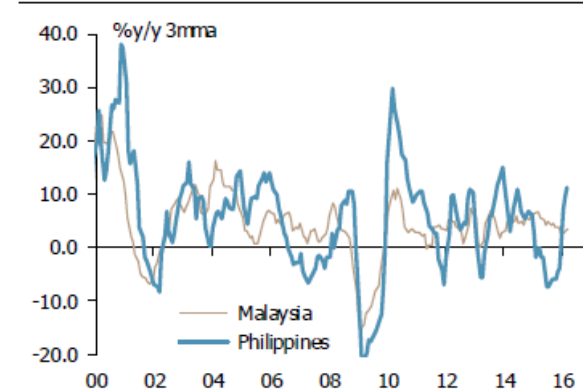
Source: CEIC and UBS calculations

Figure 70: Indonesia and Thailand



Source: CEIC and UBS calculations

Figure 71: Malaysia and Philippines



Source: CEIC and UBS calculations

Inflation

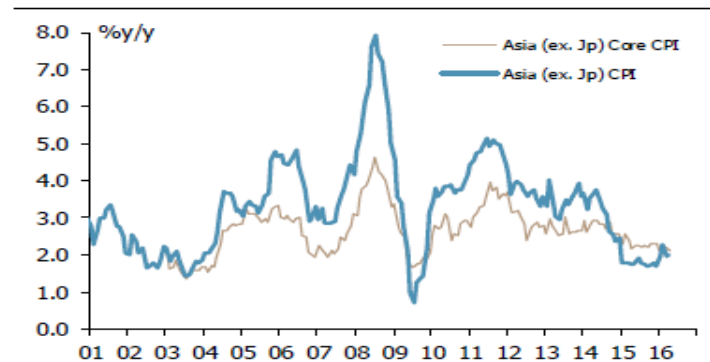
- **Why this matters:** Inflation provides critical hints about the direction of monetary policy, which in turn affects markets. High inflation, when combined with above-trend economic growth and low unemployment, typically provoke monetary tightening; whereas low inflation, when coupled with below-trend economic growth and high unemployment, tends to produce the opposite policy.

Figure 72: CPI weights; official inflation forecasts and targets

| | CPI weight | | Latest | Headline Inflation, UBS e | | Target/Forecast | Official Target or Forecast |
|-------------|------------|-----------|--------|---------------------------|-------|-----------------|---|
| | Food | Utilities | | 2016F | 2017F | | |
| China | 29.7 | 8.1 | 2.3 | 1.9 | 2.0 | ~3% | The target may be seen as more of an upper band in our view |
| Hong Kong | 27.5 | 2.8 | 2.9 | 1.8 | 0.0 | 2.3 | Government underlying CPI forecast for 2016 |
| India | 45.9 | 6.8 | 5.4 | 4.6 | 4.2 | 4.0 ± 2.0 | RBI official CPI inflation target |
| Indonesia | 36.1 | 5.9 | 3.6 | 4.4 | 5.4 | 4.0 ± 1.0 | BI headline CPI target |
| Japan | 25.3 | 5.4 | -0.3 | 0.1 | 1.5 | 0.8 | BoJ CPI forecast for FY 2016 |
| Korea | 25.8 | 4.8 | 0.8 | 0.9 | 0.9 | 2.0 | BoK headline CPI target for 2016-2018 |
| Malaysia | 30.2 | 3.3 | 2.1 | 2.3 | 2.3 | 2-3 | BNM headline CPI forecast for 2016 |
| Philippines | 40.0 | 7.1 | 1.1 | 2.2 | 2.8 | 3.0 ± 1.0 | BSP headline CPI target for 2016-18 |
| Singapore | 21.7 | 3.0 | -0.5 | 0.1 | 0.8 | 0.5-1.5 | MAS core CPI forecast for 2016 |
| Taiwan | 26.1 | 3.2 | 1.9 | 0.8 | 1.6 | 1.1 | Government headline CPI forecast for 2016 |
| Thailand | 33.5 | 4.9 | 0.1 | 0.4 | 1.7 | 1.0-4.0 | BoT official CPI inflation target |

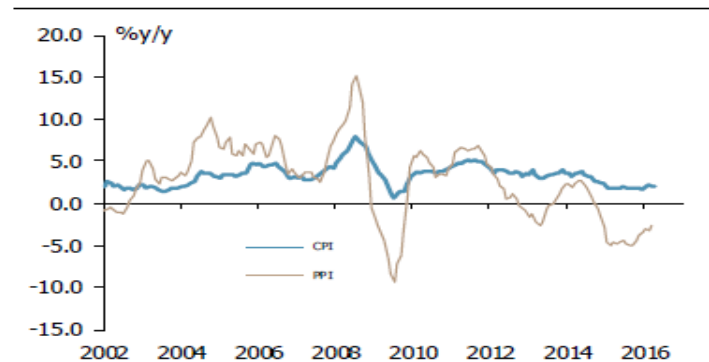
Source: CEIC and UBS estimates. Government and central bank websites.

Figure 73: Asia CPI vs Core CPI



Source: CEIC, UBS. Note: Simple average

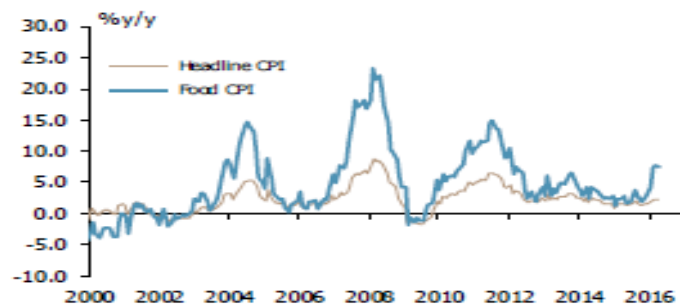
Figure 74: Asia CPI and PPI



Source: CEIC, UBS. Note: Simple average of PPI in China, India, Taiwan, Korea, Philippines, Indonesia, Thailand, Singapore and Malaysia.

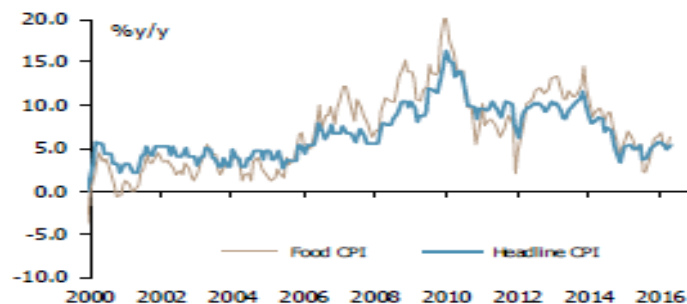
Inflation: Country Trends

Figure 75: China: Headline and Food CPI



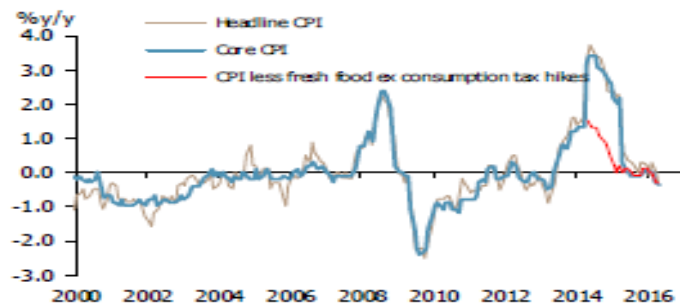
Source: CEIC and UBS calculations

Figure 76: India: Headline and Food CPI



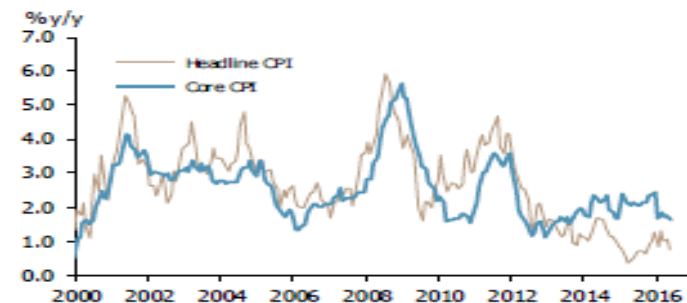
Source: CEIC and UBS calculations

Figure 77: Japan: Headline and core inflation



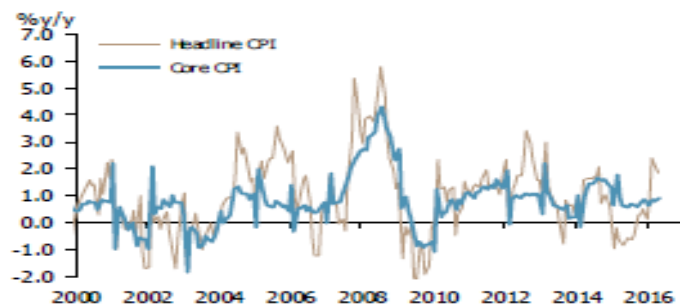
Source: CEIC and UBS calculations

Figure 78: Korea: Headline and core inflation**



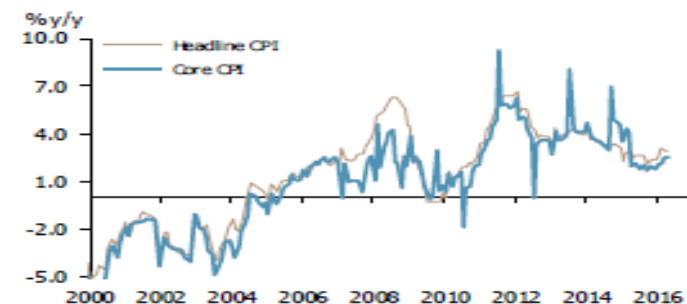
Source: CEIC and UBS calculations. **Cigarette tax hikes boost core 80bps est.

Figure 79: Taiwan: Headline and core inflation



Source: CEIC and UBS calculations

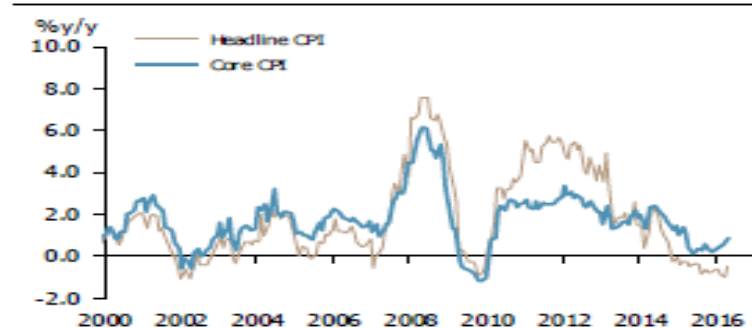
Figure 80: Hong Kong: Headline and core inflation



Source: CEIC and UBS calculations. Note: Headline CPI – Netting out effect of Govt One-off Relief Measure.

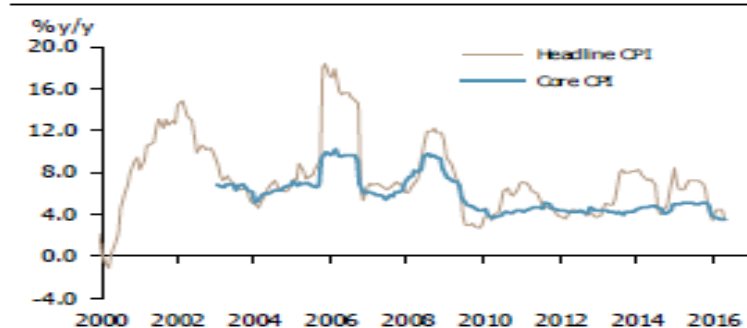
Inflation: Country Trends

Figure 81: Singapore: Headline and core inflation



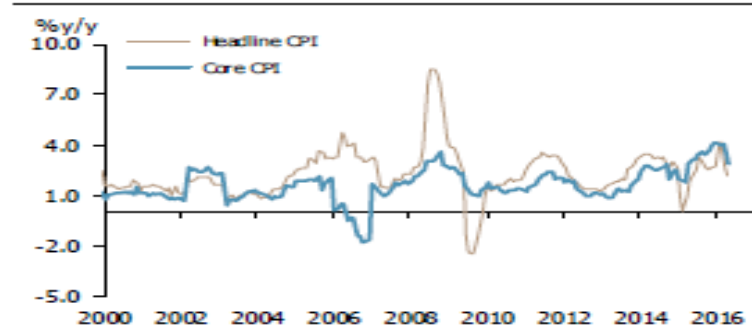
Source: CEIC and UBS calculations

Figure 82: Indonesia: Headline and core inflation



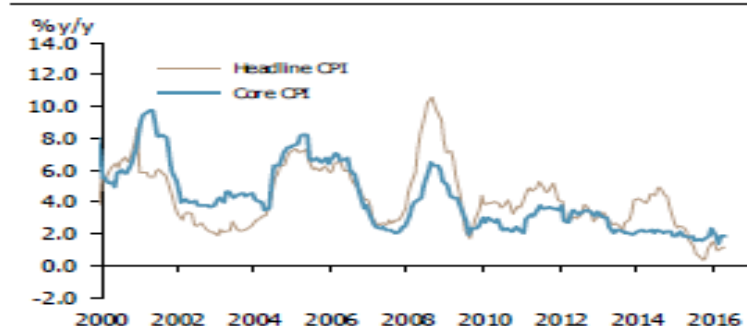
Source: CEIC and UBS calculations

Figure 83: Malaysia: Headline and core inflation



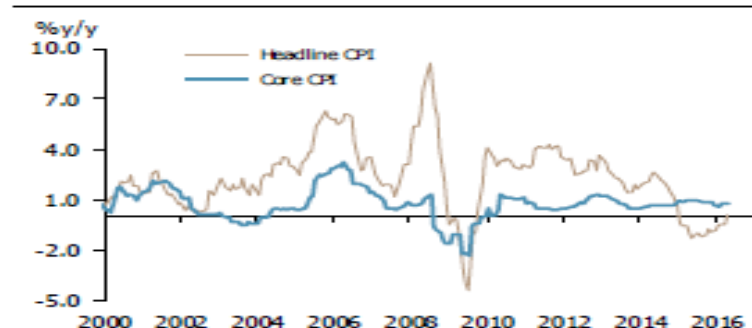
Source: CEIC and UBS calculations

Figure 84: Philippines: Headline and core inflation



Source: CEIC and UBS calculations

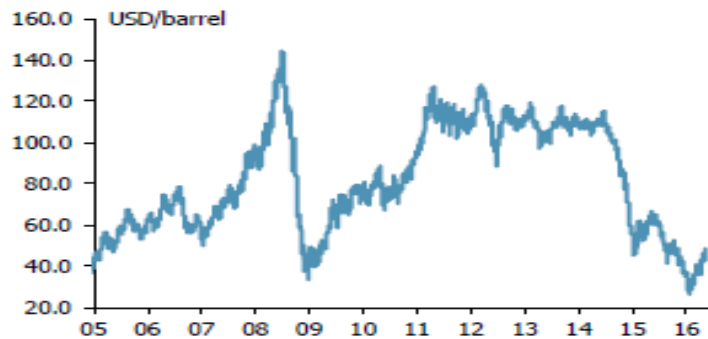
Figure 85: Thailand: Headline and core inflation



Source: CEIC and UBS calculations

Inflation: Global Commodity Prices

Figure 86: Crude oil prices



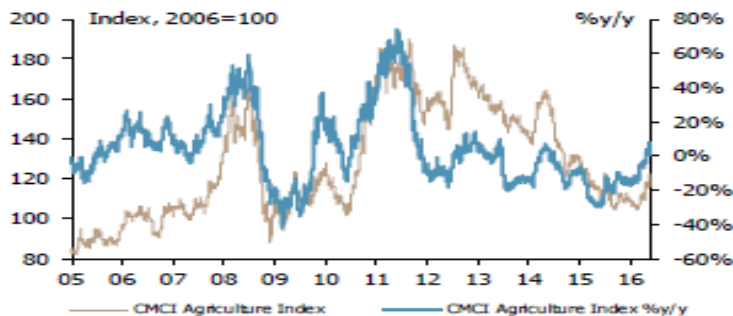
Source: CEIC and UBS calculations. Note: Brent crude oil price.

Figure 87: CRB index



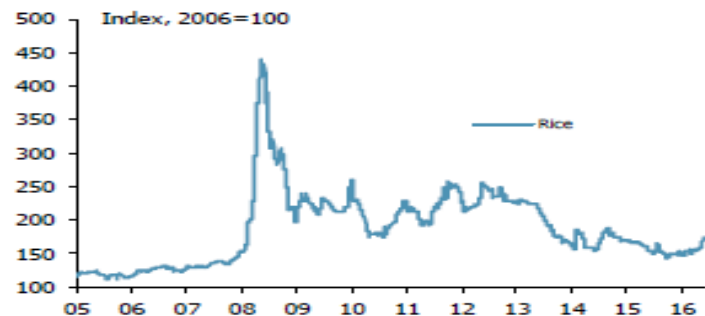
Source: CEIC and UBS calculations

Figure 88: Global Agriculture prices



Source: IMF and UBS calculations

Figure 89: Food price: Thai Rice



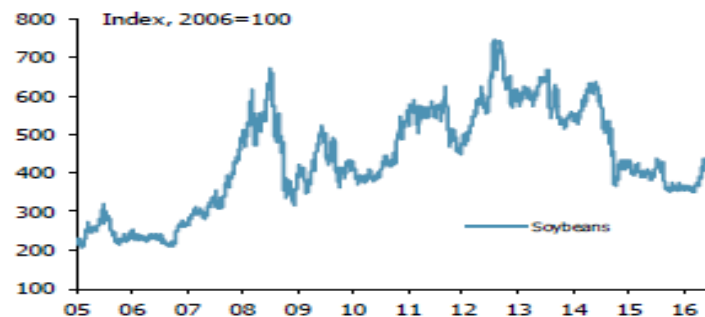
Source: CEIC and UBS calculations

Figure 90: Food price: Corn and wheat prices



Source: CEIC and UBS calculations

Figure 91: Food price: Soybean prices

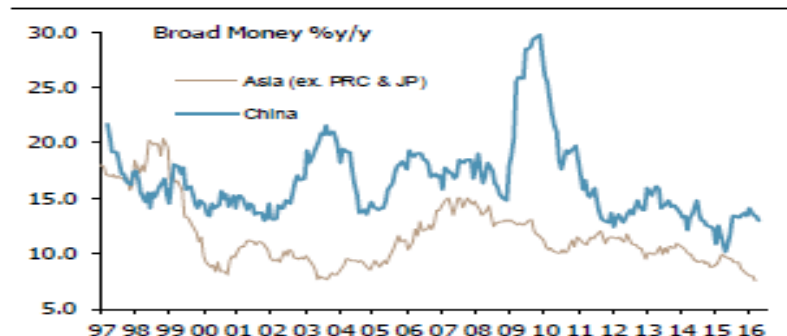


Source: CEIC and UBS calculations

Money and Credit

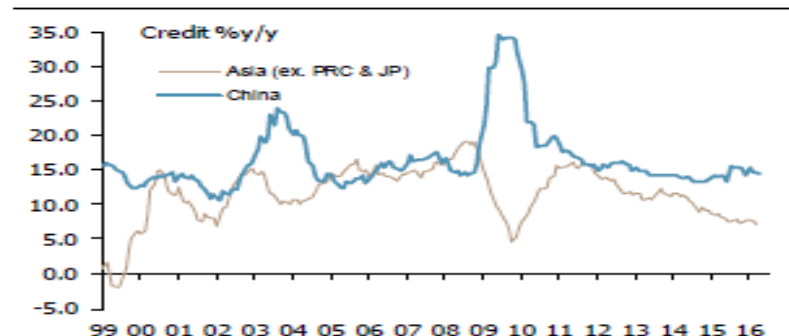
- **Why this matters:** Money and credit are pro-cyclical and correlate strongly with inflation in the long term. We have included aggregated money and credit for the region, but these should be treated with caution. We recommend focussing on individual countries. Comparing the growth rate between credit and money provides clues about where liquidity conditions are tightening, especially if loan-to-deposit ratios are elevated. We use broad money as a simple measure of deposit growth or funding source for banking assets. When credit grows faster than money supply the loan to deposit ratio should rise.

Figure 92: Broad money growth



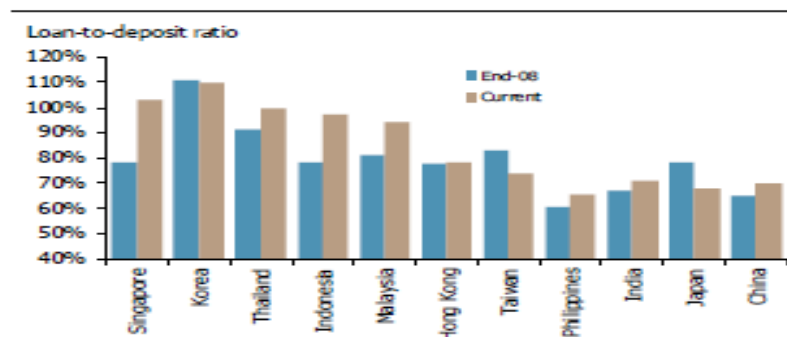
Source: CEIC, UBS. Note: Aggregate series calculated using 2007 nominal GDP fixed weight.

Figure 93: Credit growth



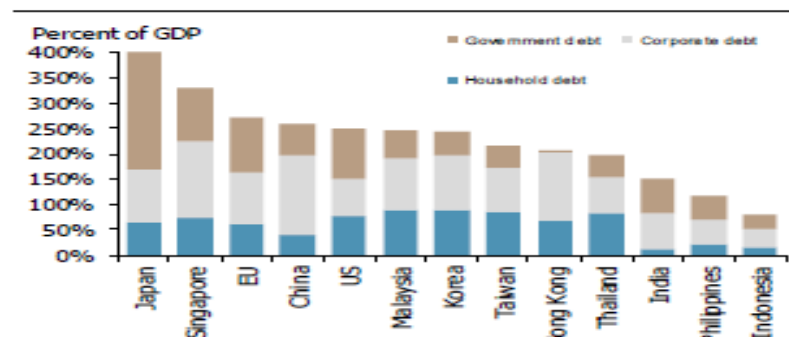
Source: CEIC, UBS. Note: Aggregate series calculated using 2007 nominal GDP fixed weight.

Figure 94: Loan-to-deposit ratio



Source: CEIC, UBS. Notes: New methodology for China deposit data since Jan 2015.

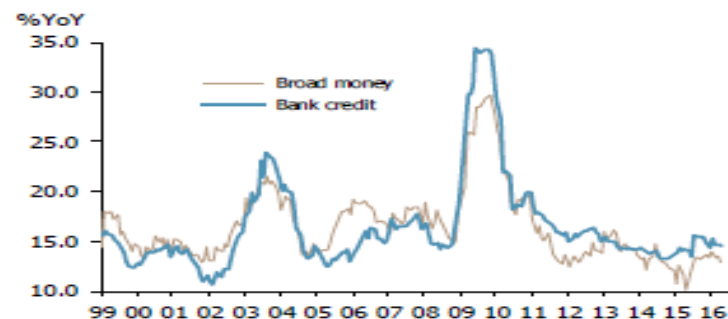
Figure 95: Non-financial sector debt (2015)



Source: CEIC, UBS. Debt figures are based on flow of funds data wherever possible.

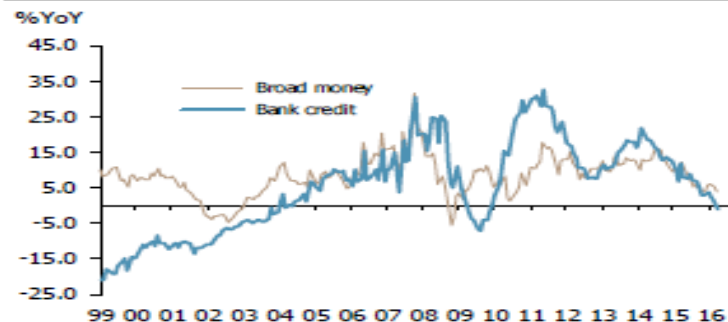
Bank Credit and Broad Money

Figure 96: China



Source: CEIC and UBS calculations

Figure 97: Hong Kong



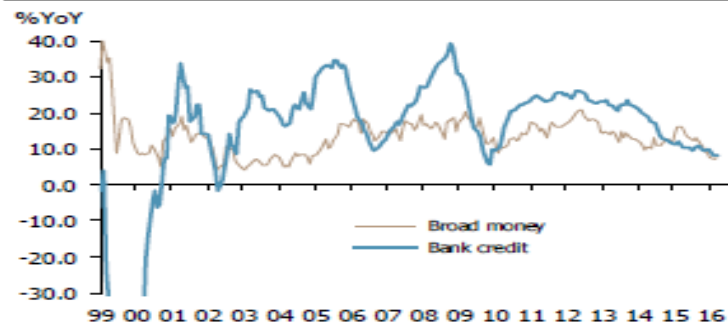
Source: CEIC and UBS calculations

Figure 98: India



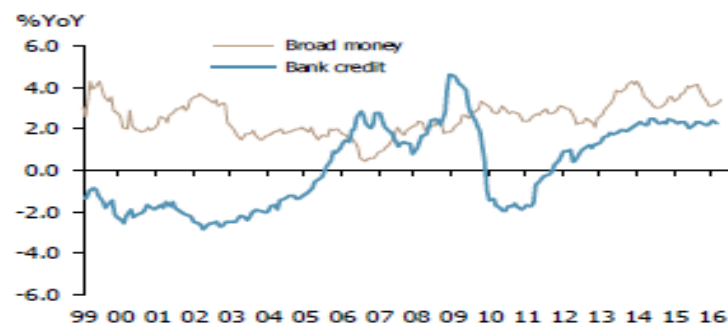
Source: CEIC and UBS calculations

Figure 99: Indonesia



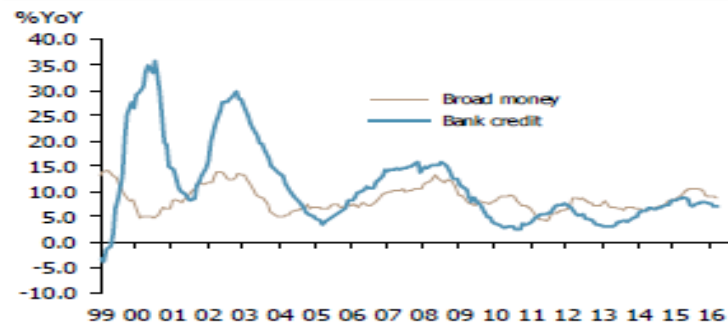
Source: CEIC and UBS calculations

Figure 100: Japan



Source: CEIC and UBS calculations

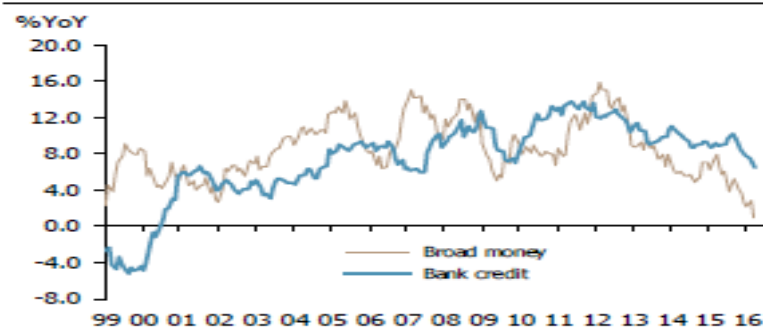
Figure 101: Korea



Source: CEIC and UBS calculations

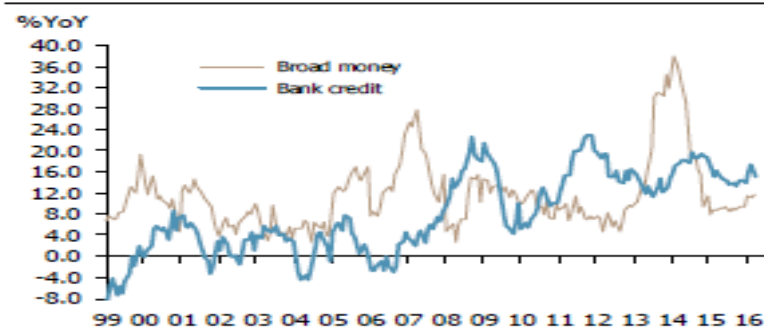
Bank Credit and Broad Money

Figure 102: Malaysia



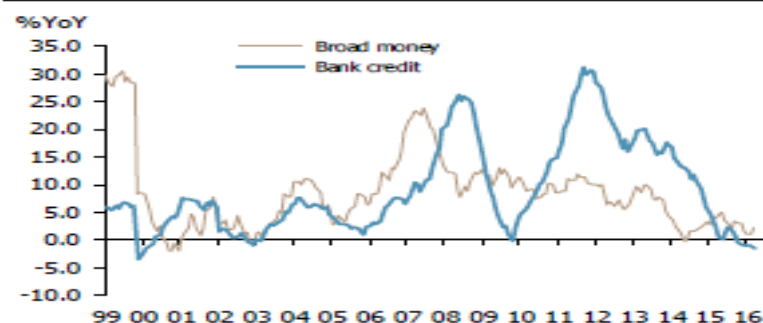
Source: CEIC and UBS calculations

Figure 103: Philippines



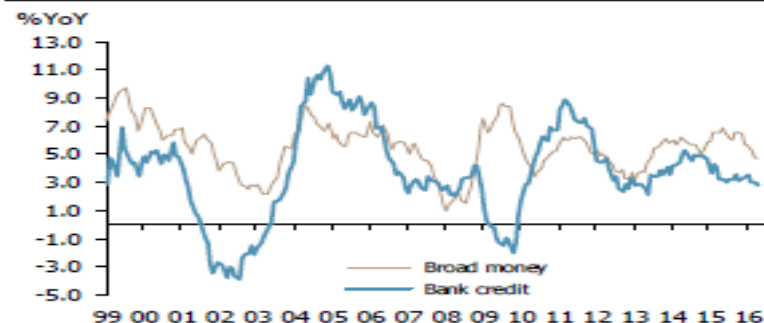
Source: CEIC and UBS calculations

Figure 104: Singapore



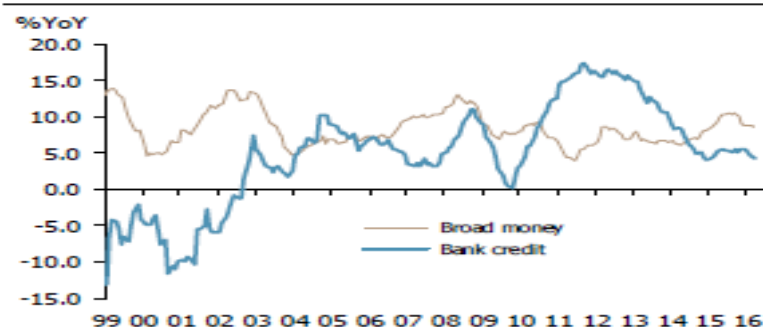
Source: CEIC and UBS calculations

Figure 105: Taiwan



Source: CEIC and UBS calculations

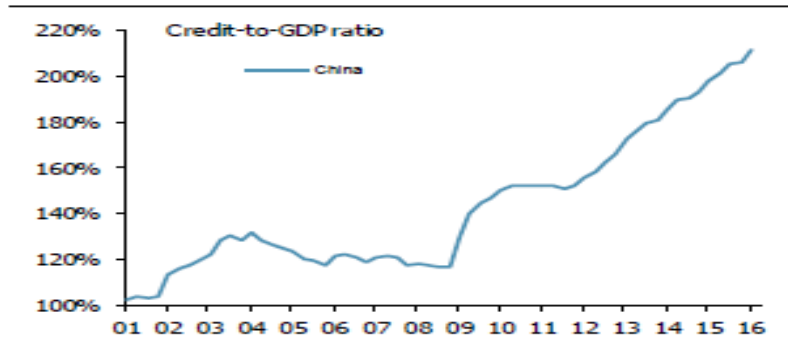
Figure 106: Thailand



Source: CEIC and UBS calculations

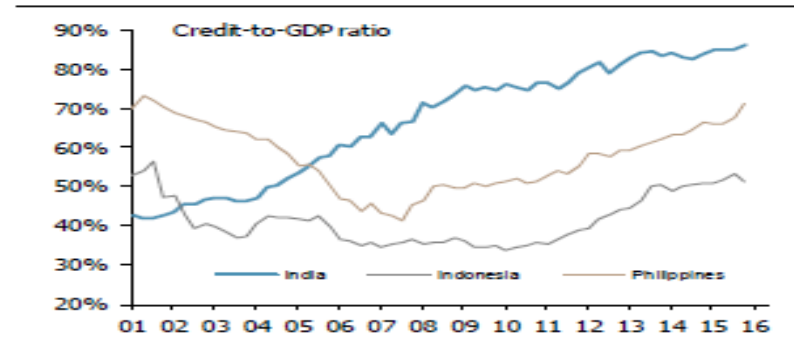
Money and Credit: Household & Corp Credit-to-GDP Ratio

Figure 107: China



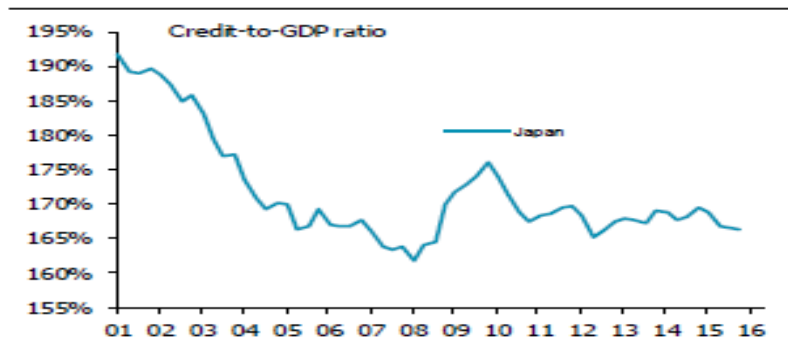
Source: CEIC and UBS calculations

Figure 108: India, Philippines and Indonesia



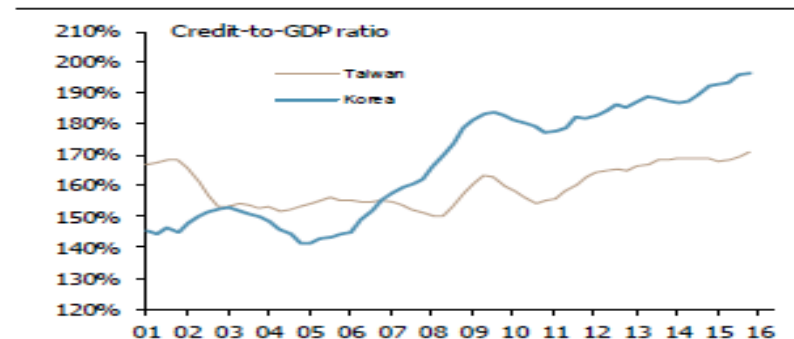
Source: Haver, CEIC and UBS calculations BIS data for India and Indonesia.

Figure 109: Japan



Source: Haver and UBS calculations. Based on BIS data.

Figure 110: Korea and Taiwan



Source: Haver, CEIC and UBS calculations. For Korea, based on BIS data. For Taiwan, loans and portfolio investment (for private and public enterprises) for financial institution.

Figure 111: Singapore and Hong Kong

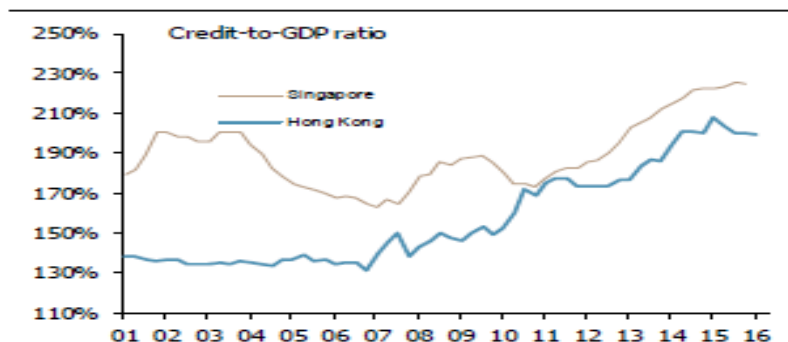


Figure 112: Malaysia and Thailand

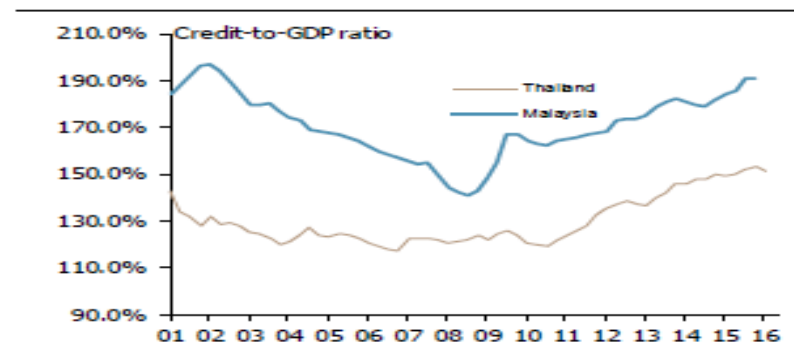
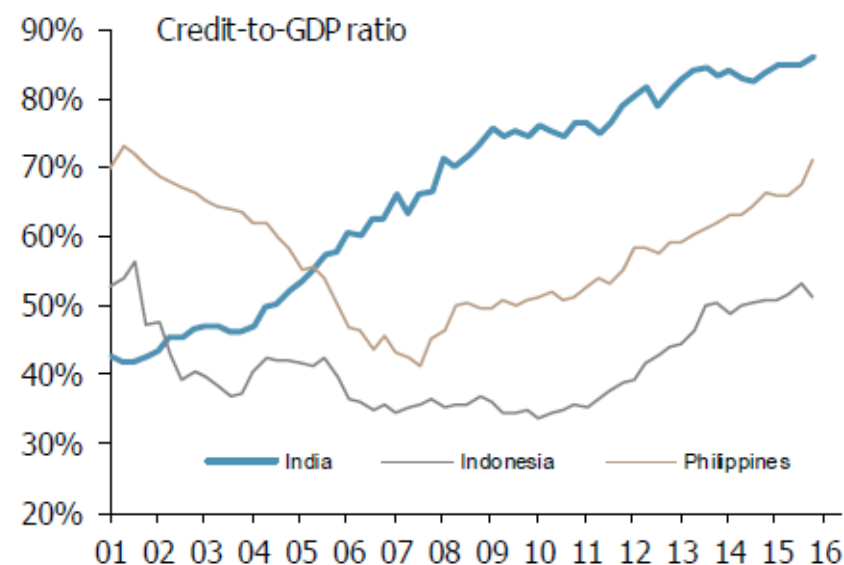


Figure 107: China



Source: CEIC and UBS calculations

Figure 108: India, Philippines and Indonesia



Source: Haver, CEIC and UBS calculations BIS data for India and Indonesia.

Figure 109: Japan

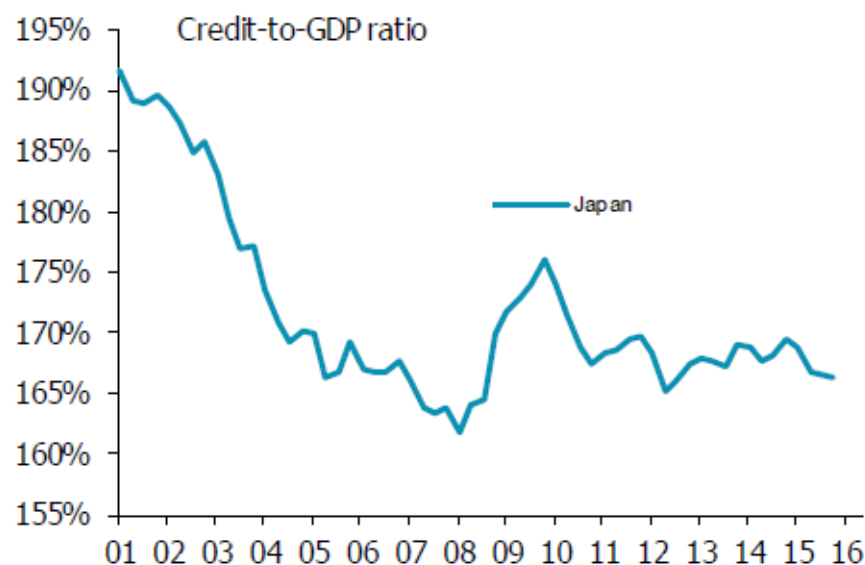


Figure 110: Korea and Taiwan

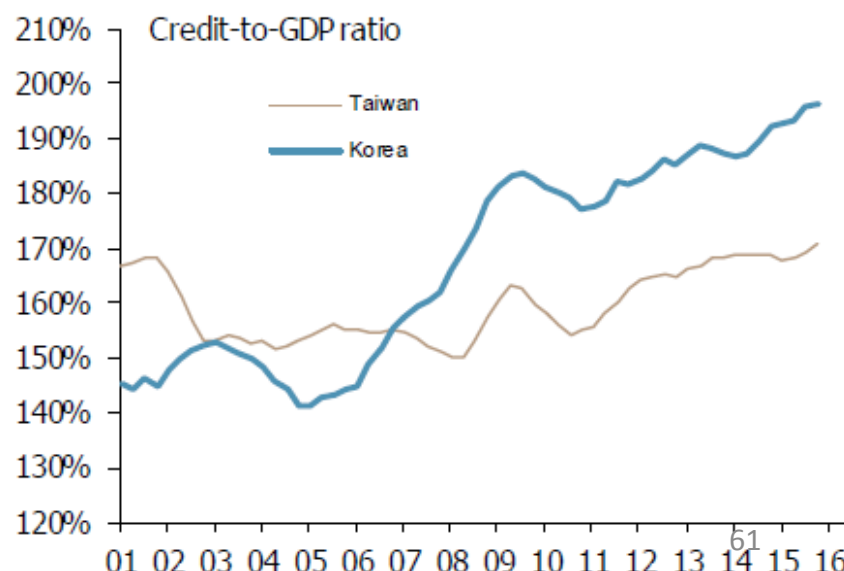
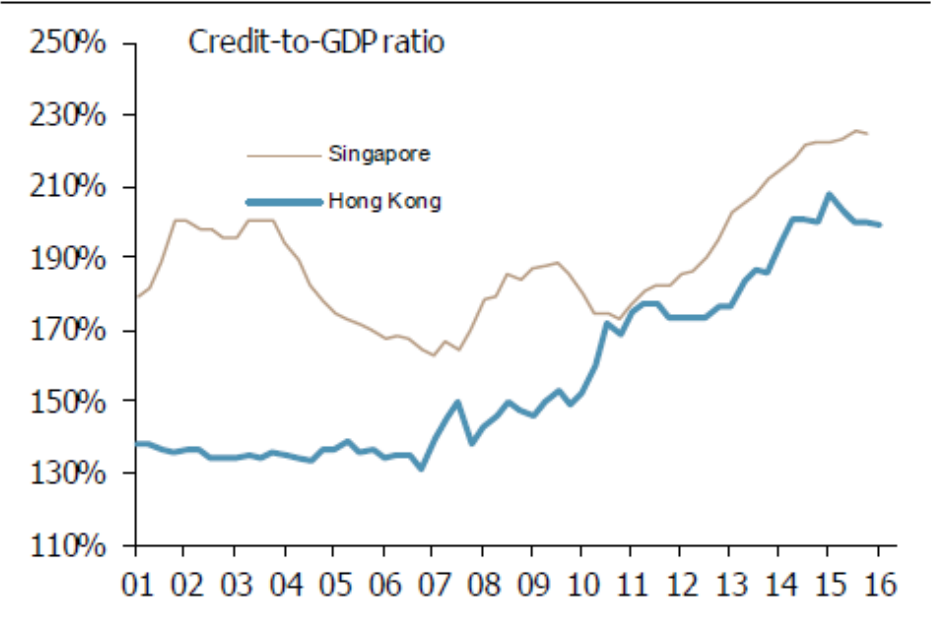
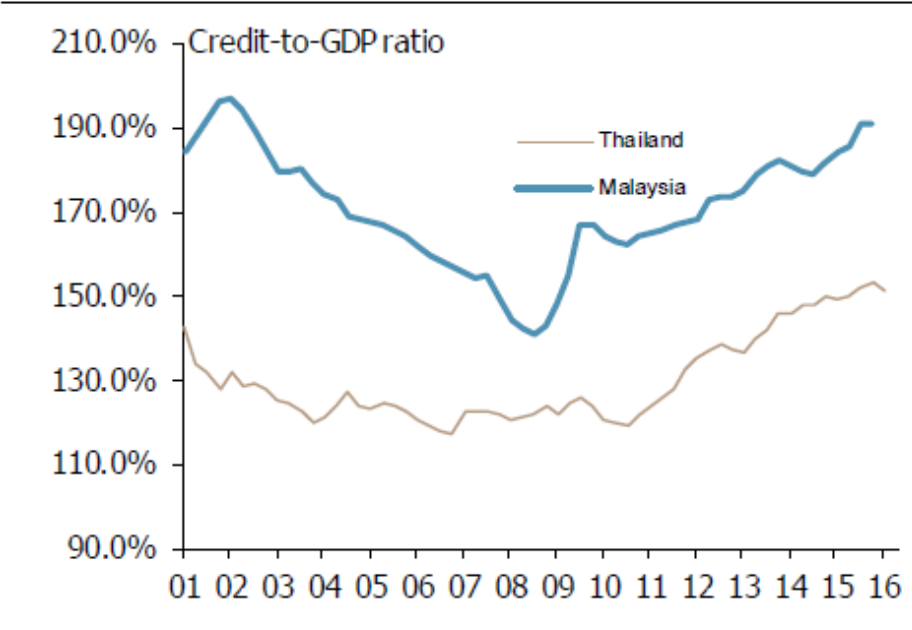


Figure 111: Singapore and Hong Kong



Source: CEIC and UBS calculations. For HK: loans for use in Hong Kong; For Singapore: loans to business by DBU plus household debt from balance sheet.

Figure 112: Malaysia and Thailand

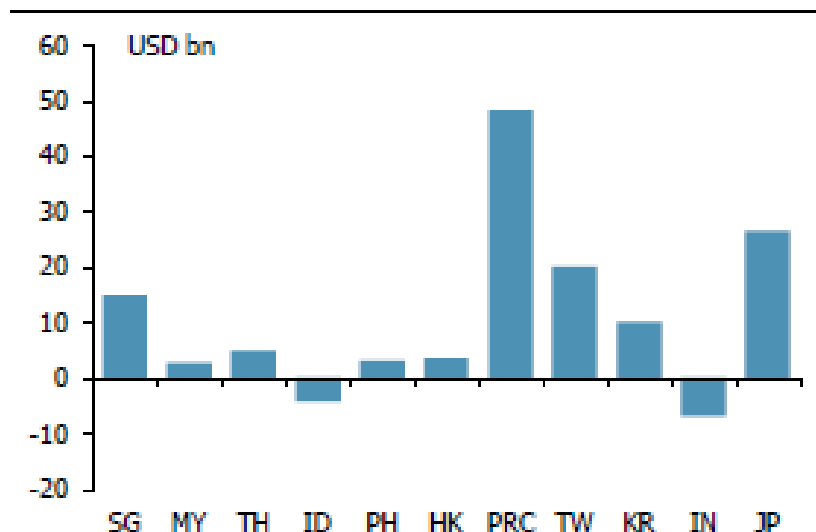


Source: Haver and UBS calculations. Based on BIS data.

BOP & Foreign Reserves

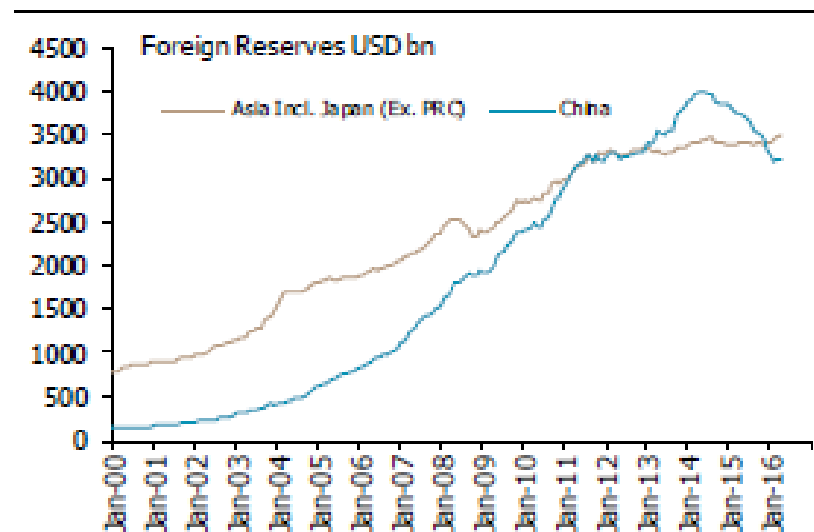
- Why this matters: Foreign reserves are an important macro prudential indicator and in Asia a key source of base money. All Asian economies have large foreign reserves relative to short-term foreign liabilities. This provides a cushion against external financial shocks. Regarding money supply, the change in foreign reserves equals the change in central bank net foreign assets, which makes up the largest portion of base money or primary source of liquidity. Thus rising foreign reserves necessarily means upward pressure on domestic liquidity conditions. This typically results for foreign exchange rate intervention, which must then be sterilized. The pressures on domestic liquidity conditions tighten when foreign reserves fall. Big changes in foreign reserves also demonstrate the degree of pressure on currencies to adjust.

Figure 113: Latest Current Account



Source: CEIC, UBS. Note: SG, MY, ID, HK, PRC, TW & IN are quarterly series.

Figure 114: Foreign reserves



Source: CEIC, UBS

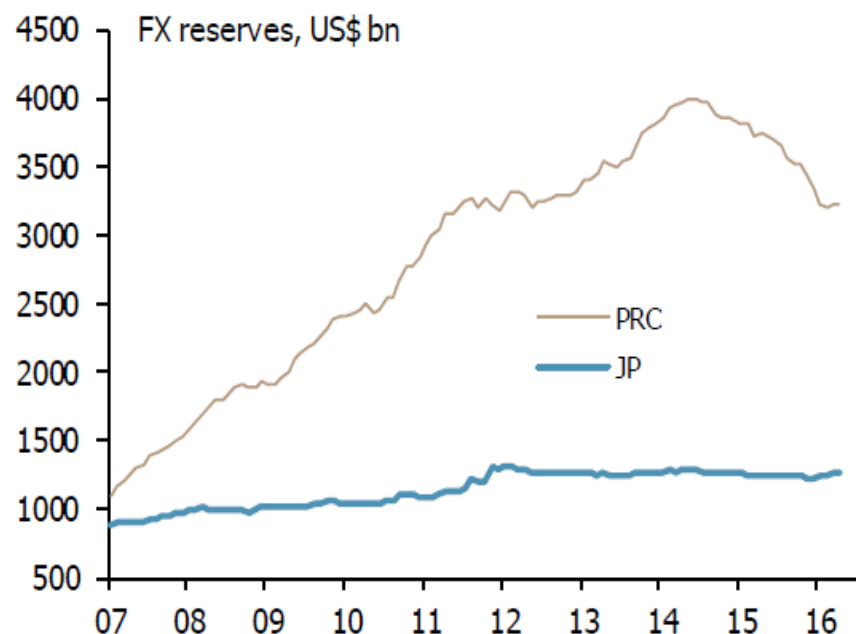
Figure 115: Asian holdings of US treasuries and agencies debt, US\$ billion

| | 2014* | | 2015* | | Latest, Mar-16 | | Latest |
|-------------------------------|------------|-------------|------------|-------------|----------------|-------------|------------------|
| | Treasuries | Agency debt | Treasuries | Agency debt | Treasuries | Agency debt | Foreign reserves |
| Total foreign holdings | 6,015.3 | 870.5 | 6,144.6 | 927.2 | 6,287.0 | n.a. | -- |
| China | 1,268.7 | 205.0 | 1,269.8 | 222.2 | 1,244.6 | n.a. | 3,219.7 |
| Hong Kong | 157.7 | 19.1 | 181.3 | 15.0 | 200.3 | n.a. | 360.8 |
| India | 72.9 | 0.0 | 116.8 | 0.0 | 118.9 | n.a. | 339.0 |
| Indonesia | 23.9 | 2.8 | 20.8 | 2.9 | 18.7 | n.a. | 107.7 |
| Japan | 1,219.6 | 168.6 | 1,195.4 | 153.8 | 1,137.1 | n.a. | 1,262.5 |
| South Korea | 57.4 | 46.0 | 76.6 | 45.8 | 84.1 | n.a. | 372.5 |
| Malaysia | 9.6 | 12.0 | 7.1 | 11.4 | 12.4 | n.a. | 97.0 |
| Philippines | 34.6 | 0.0 | 39.8 | 0.0 | 41.3 | n.a. | 83.7 |
| Singapore | 97.6 | 6.0 | 112.7 | 6.7 | 112.7 | n.a. | 250.4 |
| Taiwan | 179.4 | 146.6 | 175.3 | 188.9 | 182.3 | n.a. | 433.2 |
| Thailand | 41.3 | 0.7 | 31.4 | 0.6 | 43.1 | n.a. | 178.6 |

Source: TIC, Haver and CEIC. Note: 2014 refers to June 2014; 2015 refers to June 2015 (Preliminary). Holding of agency debt only reported annually, 2016 data not yet available.

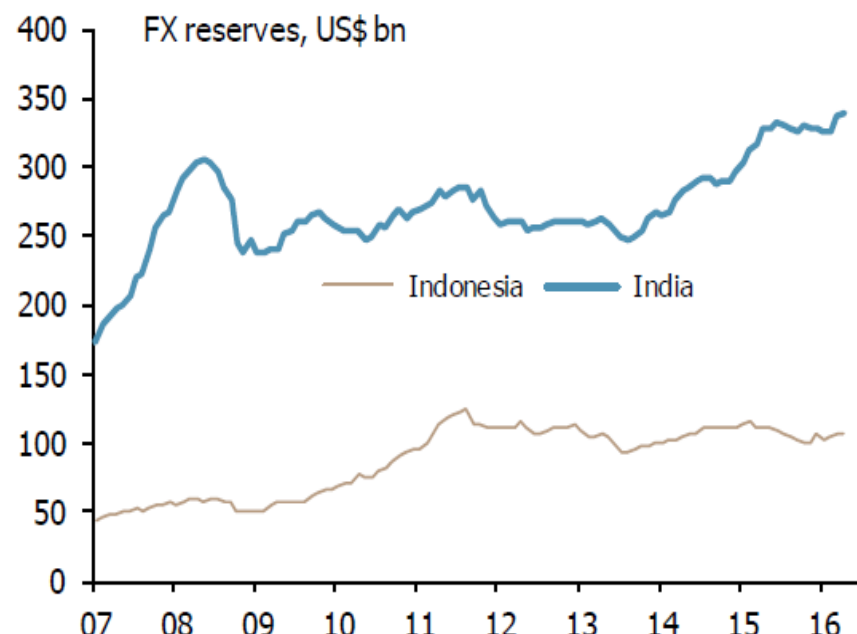
Foreign Reserves: Country Trends

Figure 116: China and Japan



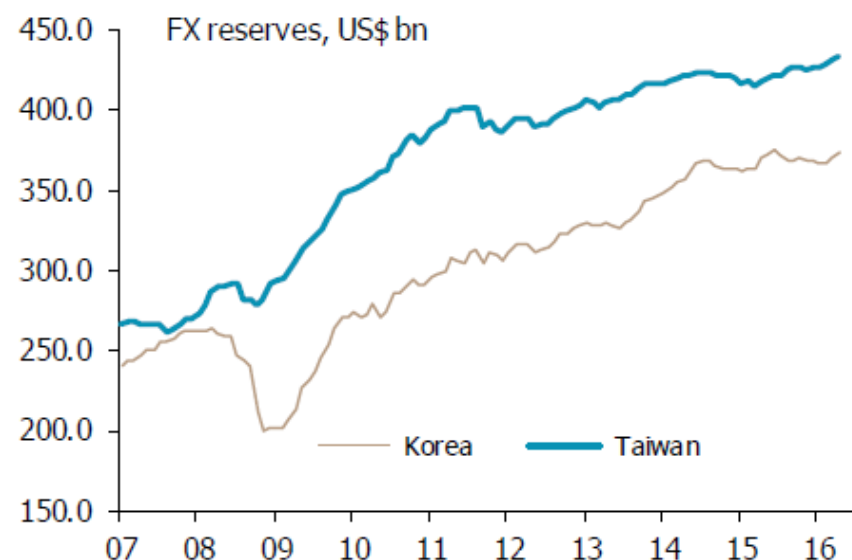
Source: CEIC and UBS calculations

Figure 117: Indonesia and India



Source: CEIC and UBS calculations

Figure 118: Korea and Taiwan



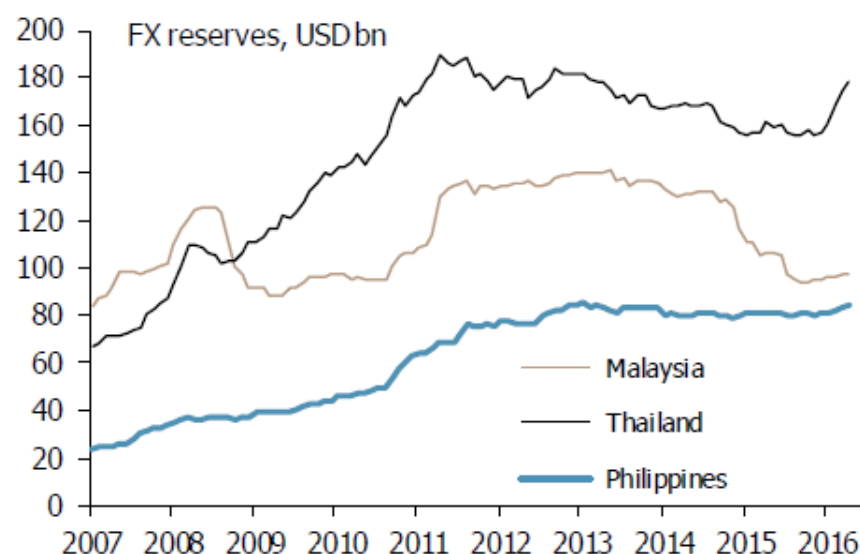
Source: CEIC and UBS calculations

Figure 119: Singapore and Hong Kong



Source: CEIC and UBS calculations

Figure 120: Malaysia, Thailand and Philippines

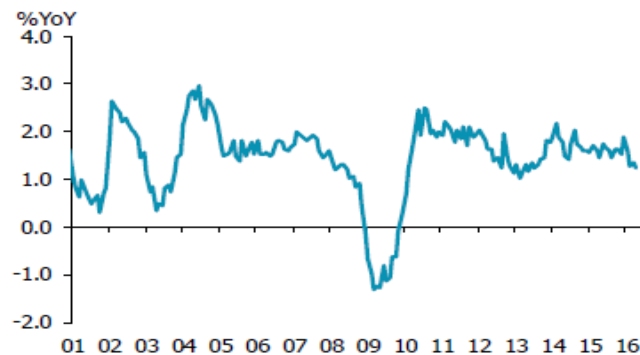


Source: CEIC and UBS calculations

Labour

- Why this matters: Strong employment usually coincides with strong consumption and investment. The unemployment rate is important to look at because it is a rough measure of slack in the economy and is watched closely by governments and central banks. High unemployment is associated with a bias for pro-growth policies, in part for political reasons. The structure of employment provides clues about the stage of capital deepening. Unfortunately, we don't have good employment/unemployment measures for much of Asia, but we've provided what is available.

Figure 121: Employment growth



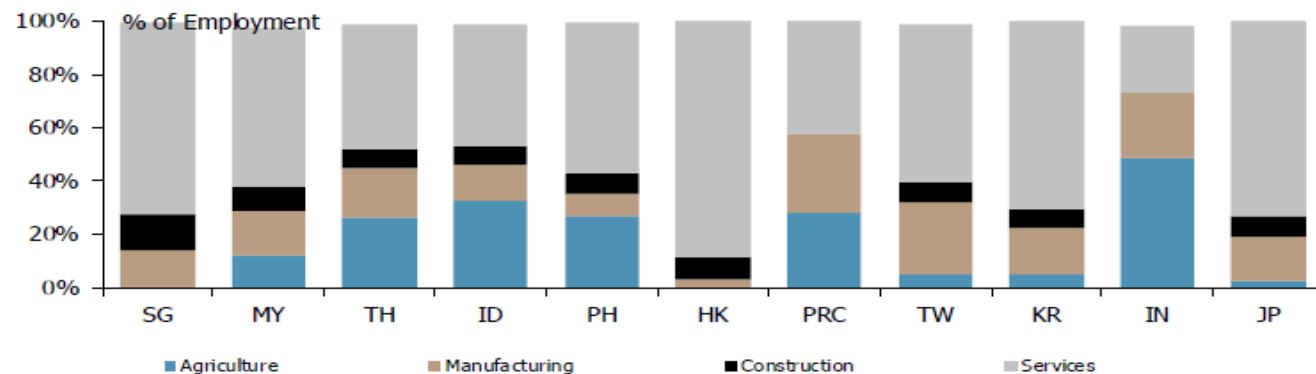
Source: CEIC, UBS. Note: Simple average of employment growth in Korea and Taiwan (Asian countries that provide high quality and high frequency data on labour market statistics).

Figure 122: Unemployment rate



Source: CEIC, UBS. Note: Simple average of unemployment rate in Korea and Taiwan (Asian countries that provide high quality and high frequency data on labour market statistics).

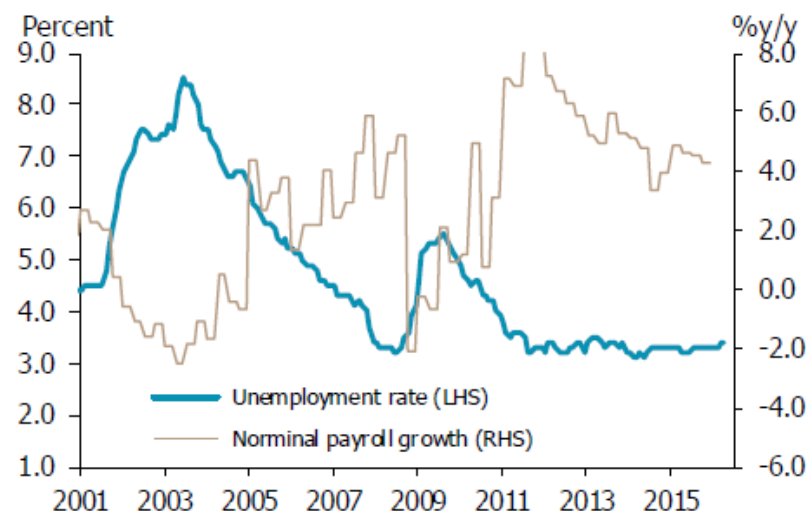
Figure 123: Employment structure



Source: CEIC, UBS

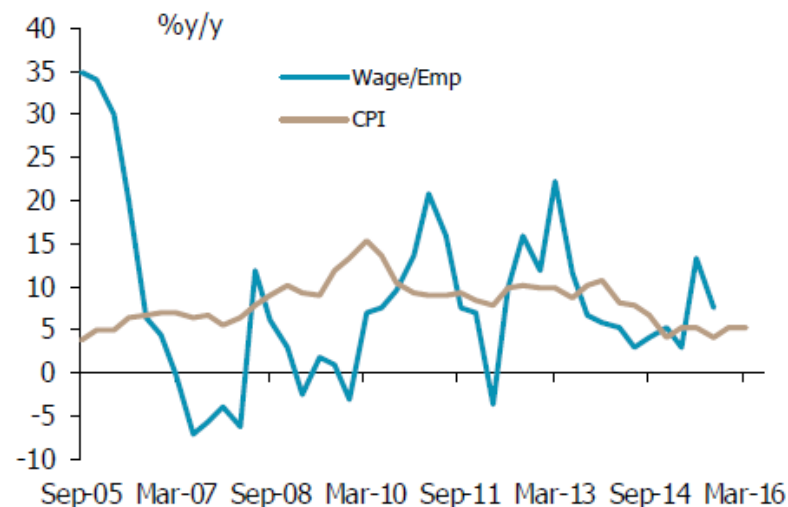
Labour: Country Trends

Figure 124: Hong Kong



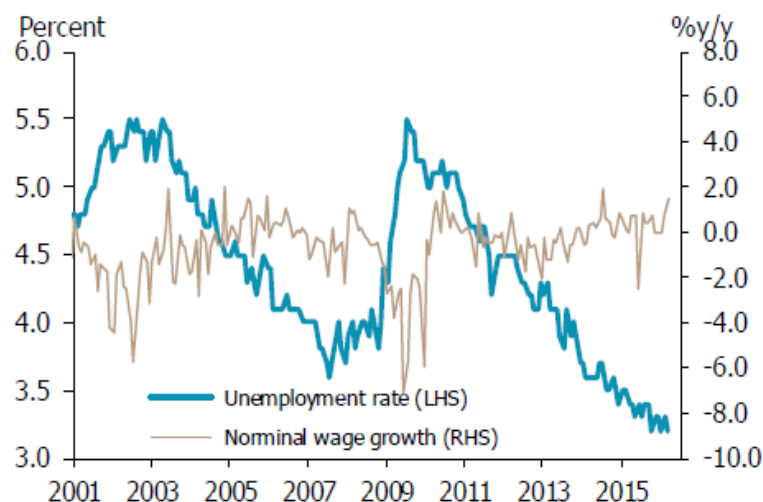
Source: CEIC and UBS calculations

Figure 125: India



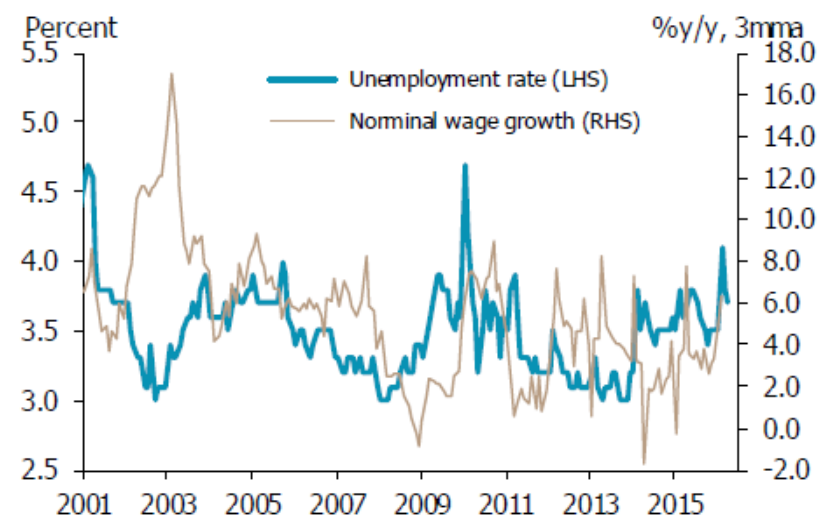
Source: CEIC and UBS calculations

Figure 126: Japan



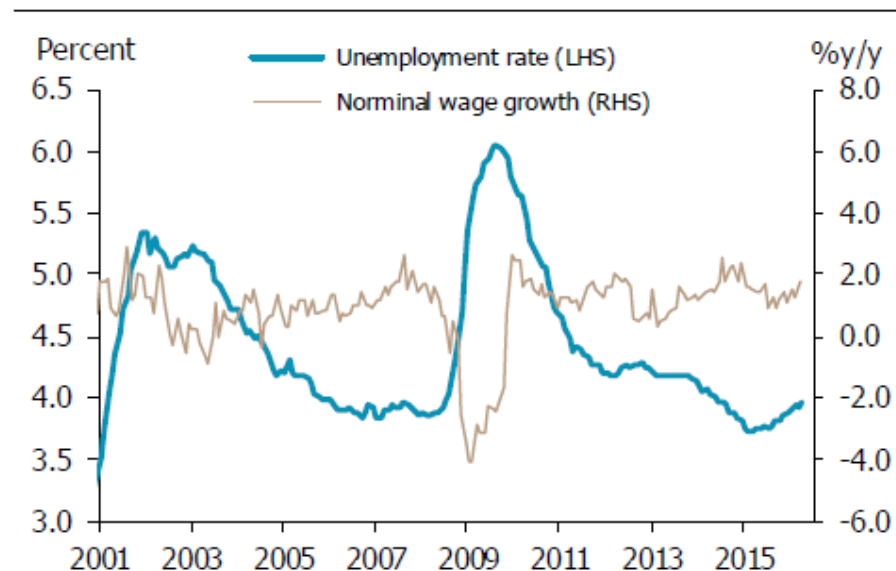
Source: CEIC and UBS calculations

Figure 127: Korea



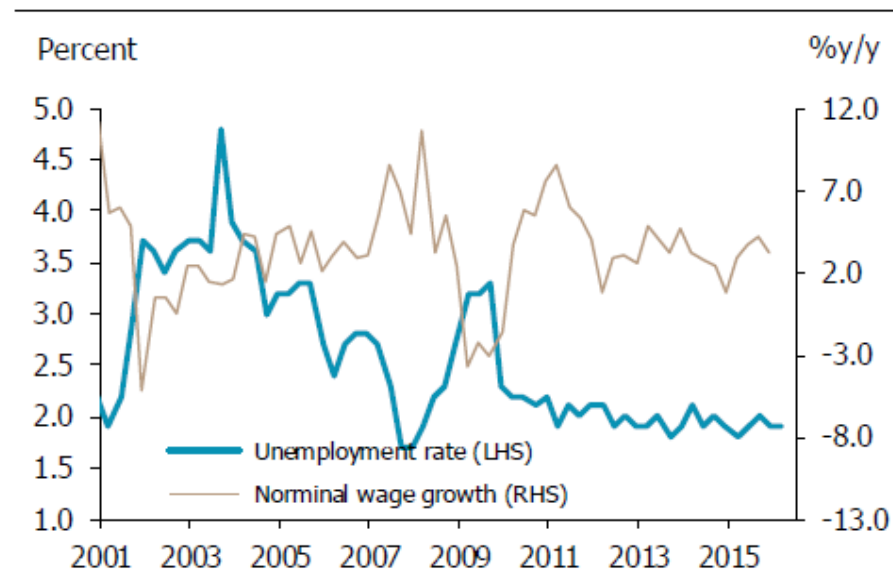
Source: CEIC and UBS calculations

Figure 128: Taiwan



Source: CEIC and UBS calculations

Figure 129: Singapore

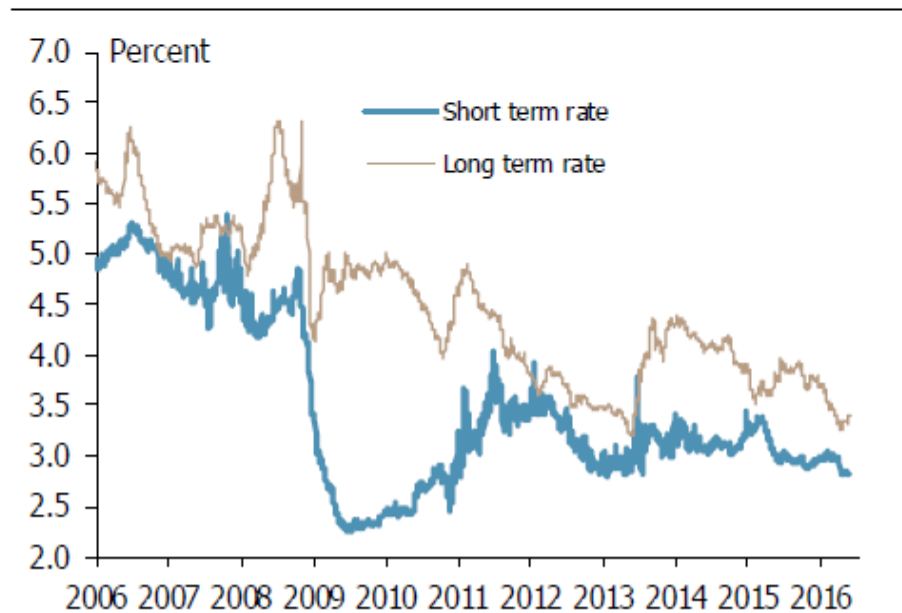


Source: CEIC and UBS calculations

Interest Rates

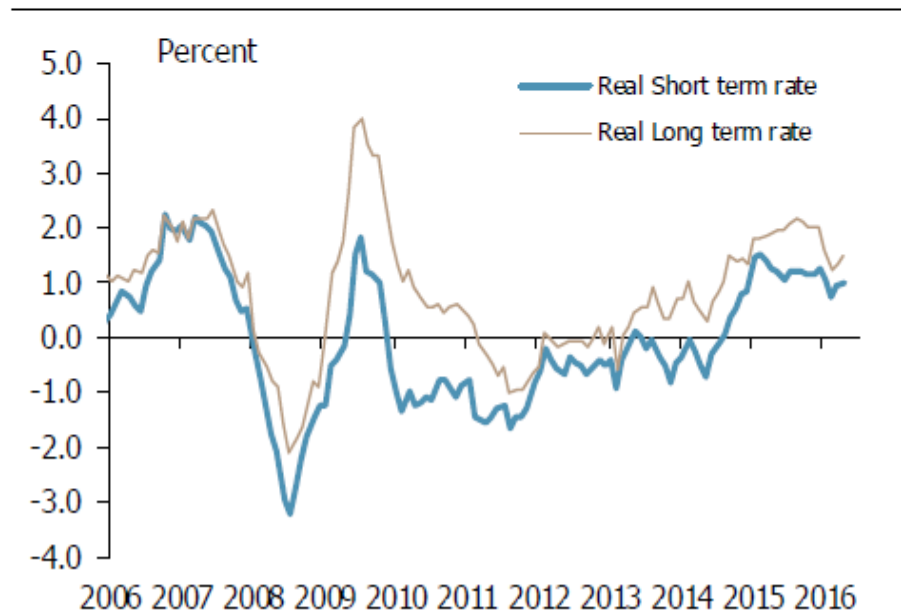
- Why this matters: Low interest rates are often used to stimulate economic growth via different channels; e.g. portfolio shifts in assets, asset price appreciation, reduced debt service burden, lowering the cost of finance for investment or durable consumption, etc. Rising rates can result in the opposite.

Figure 130: Nominal interest rates



Source: CEIC, UBS. Note: Aggregate series calculated using simple average.

Figure 131: Real interest rates



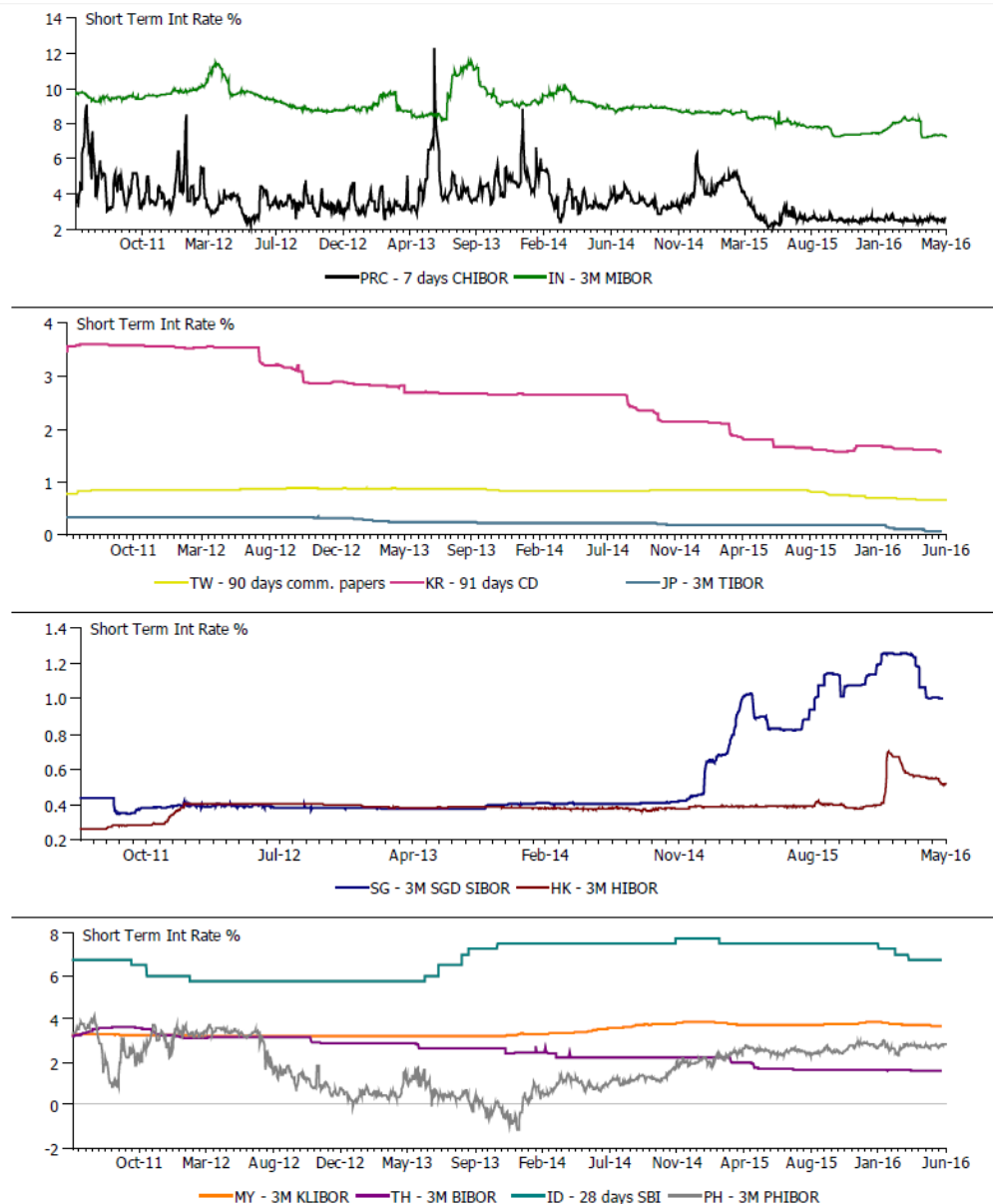
Source: CEIC, UBS. Note: Aggregate series calculated using simple average.

Figure 132: Changes in policy rate

| | 2013 | 2014 | 2015 | Dec-15 | Jan-16 | Feb-16 | Mar-16 | Apr-16 | May-16 |
|---------------------------|-------|-------|-------|--------|--------|--------|--------|--------|--------|
| China | | | | | | | | | |
| 1-year time deposits | 3.00 | 2.75 | 1.50 | 1.50 | 1.50 | 1.50 | 1.50 | 1.50 | 1.50 |
| Reserve requirement ratio | 19.50 | 19.50 | 17.00 | 17.00 | 17.00 | 17.00 | 16.50 | 16.50 | 16.50 |
| India | | | | | | | | | |
| Repo rate | 7.75 | 8.00 | 6.75 | 6.75 | 6.75 | 6.75 | 6.75 | 6.50 | 6.50 |
| Cash reserve ratio | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 |
| Indonesia | 7.50 | 7.75 | 7.50 | 7.50 | 7.25 | 7.00 | 6.75 | 6.75 | 6.75 |
| Japan | 0.07 | 0.07 | 0.04 | 0.04 | 0.07 | 0.00 | 0.00 | -0.06 | -0.05 |
| Korea | 2.50 | 2.00 | 1.50 | 1.50 | 1.50 | 1.50 | 1.50 | 1.50 | 1.50 |
| Malaysia | 3.00 | 3.25 | 3.25 | 3.25 | 3.25 | 3.25 | 3.25 | 3.25 | 3.25 |
| Philippines | 3.50 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 |
| Taiwan | 1.88 | 1.88 | 1.63 | 1.63 | 1.63 | 1.63 | 1.50 | 1.50 | 1.50 |
| Thailand | 2.25 | 2.00 | 1.50 | 1.50 | 1.50 | 1.50 | 1.50 | 1.50 | 1.50 |

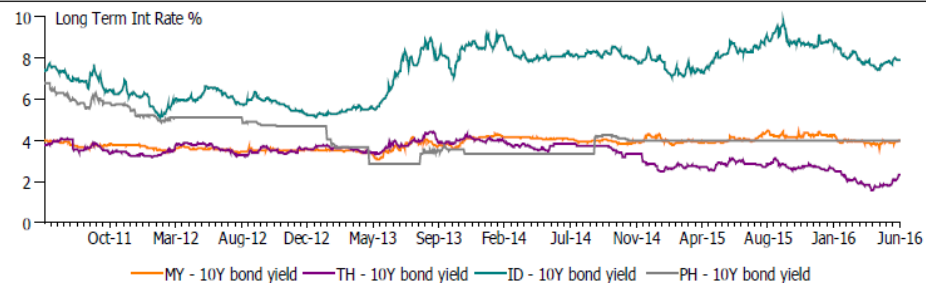
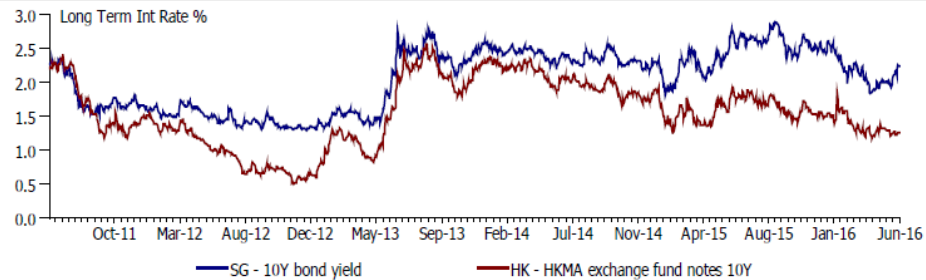
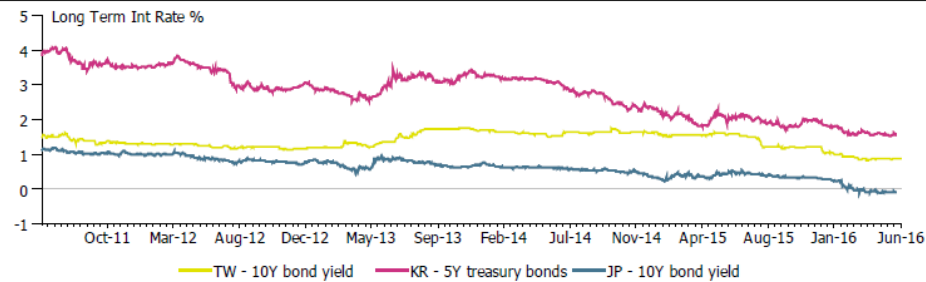
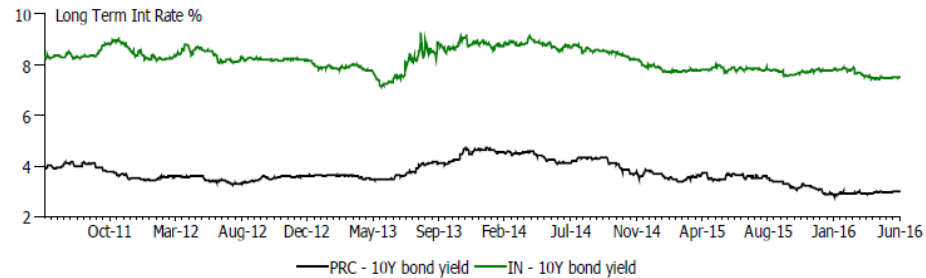
Source: CEIC, UBS. Note: China (1-year time deposit rate); India (repo rate); Indonesia (1M Bank Indonesia certificates); Japan (overnight call rate); Korea (BOK base rate); Malaysia (Overnight policy rate); Philippines (Repo rate); Taiwan (CBC rediscount rate); Thailand: (1 day repo rate).

Interest Rates: Short Term Rates



Source for all charts on this page: CEIC, UBS, Bloomberg

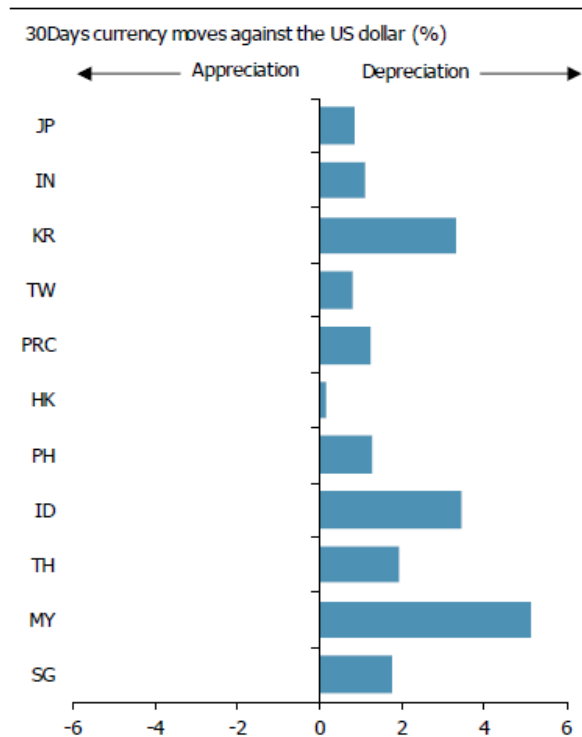
Interest Rates: Long Term Rates



Exchange Rate

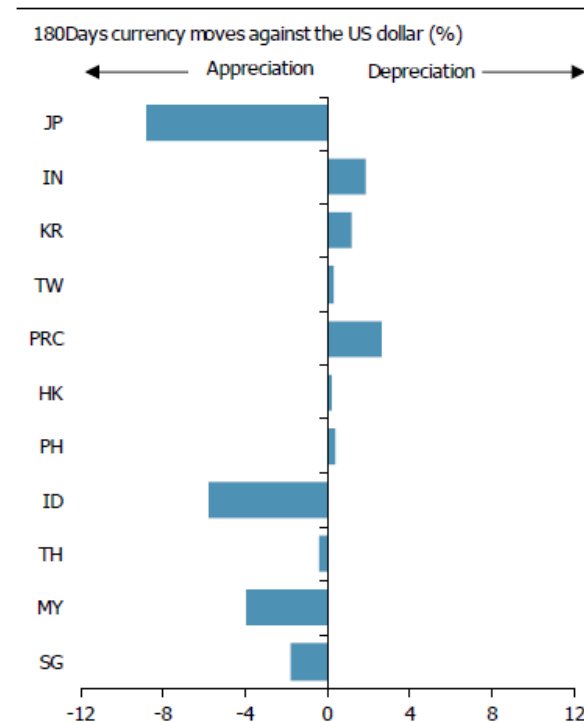
- **Why this matters:** Exchange rates affect inflation and trade. However, one of the reasons to look at exchange rates in Asia is because most central banks like to “lean against the wind” and in doing so affect domestic liquidity conditions. Many Asian central banks buy US dollars (increasing foreign reserves) when their currencies are under pressure to appreciate and this causes the domestic money supply to expand, which must then be sterilized, usually with central bank debt or by adjusting reserve requirement ratios on deposits as in China. The process flows in the other direction when currencies are under pressure to depreciate.

Figure 133: 30 Days currency moves against the US dollar



Source: CEIC, UBS

Figure 134: 180 Days currency moves against the US dollar



Source: CEIC, UBS

Exchange Rate: Spot

Figure 135: China

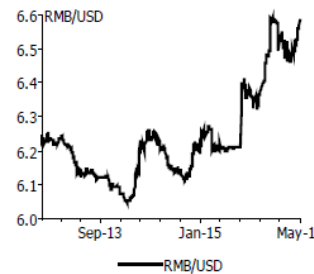


Figure 136: India



Figure 137: Taiwan



Figure 138: Korea



Figure 139: Japan

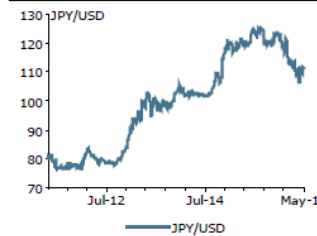


Figure 140: Singapore



Figure 141: Hong Kong

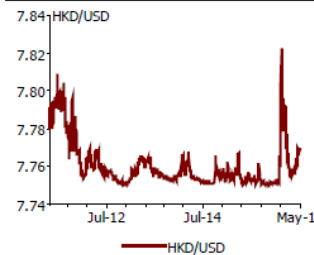


Figure 142: Malaysia



Figure 143: Thailand



Figure 144: Indonesia

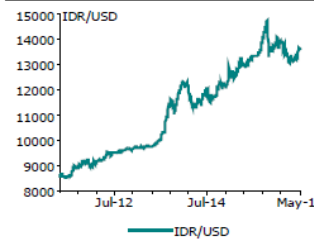
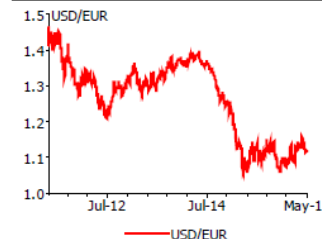


Figure 145: Philippines



Figure 146: Euro

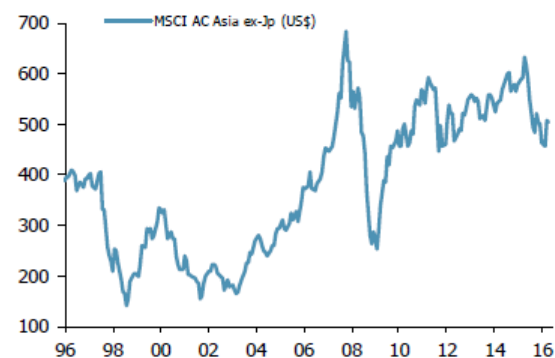


Source: CEIC & Bloomberg

Asset Prices

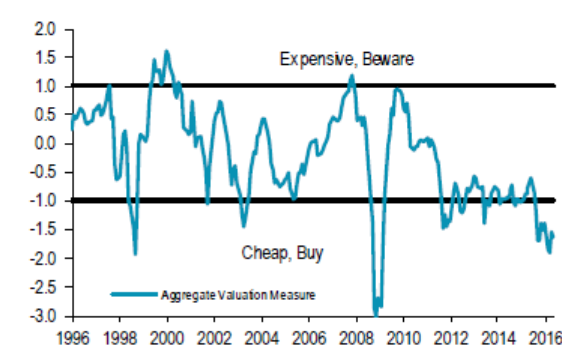
- **Why this matters:** Stock markets are one of the best forward-looking indicators for economic growth and profits. A sustained rise in stock markets can also have significant effects on consumption and investment via wealth effects for consumers and lower cost of capital for firms. The AVM (Aggregate Valuation Measure) is an amalgam of five valuation concepts: historical PE, prospective PE, Price/Book, Dividend Yield and an Earnings yield/bond yield indicator constructed by UBS Asian Strategist Niall MacLeod (niall.macleod@ubs.com).

Figure 147: MSCI Asia ex Japan



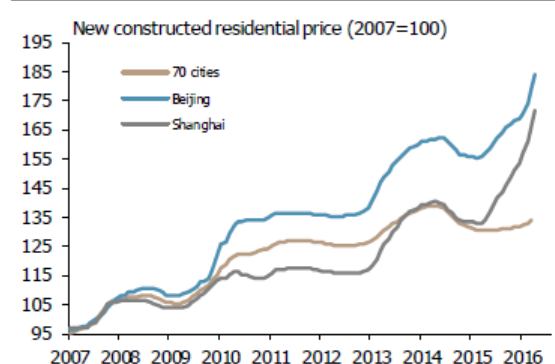
Source: CEIC, UBS

Figure 148: Valuation matrix



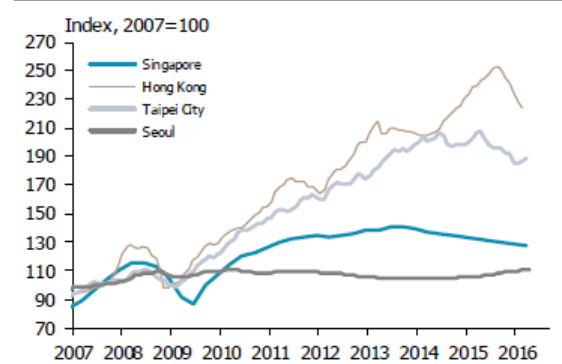
Source: CEIC, UBS

Figure 149: Residential property prices, China



Source: CEIC, UBS. Note: Based on property prices compiled by the NDRC.

Figure 150: Residential property prices, other Asian cities



Source: CEIC, UBS



Thank you

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