Deloitte Touche Tohmatsu LLC
Center for Risk Management Strategy (CRMS)

2018 Economic Outlook

Bracing for a Minsky moment: Being aware of what could go wrong in 2018

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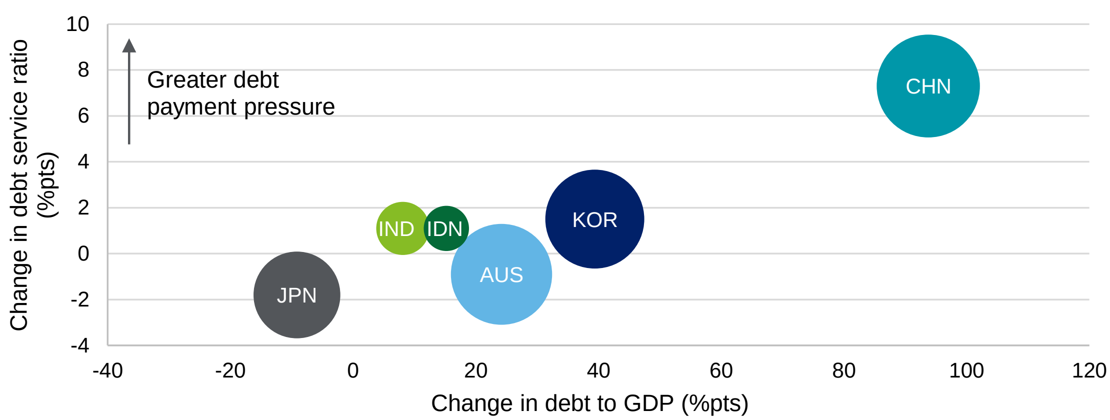
In 2017, 20 years after the 1997 Asian financial crisis, Asian countries enjoyed stronger than expected economic growth despite concerns of another financial crisis occurring within a 10 year cycle. The Chinese economy continued to see growth with only gradual deceleration. This, together with a strong US economy, helped other Asian countries see robust economic performance and continued capital inflows. In particular Korea, Taiwan, and many SEA countries recorded a strong uptick in exports, further bolstering their growth. Even Japan, which has long been struggling with an anaemic low growth rate, looked as though its economy had revived and had finally exited deflation.

All these seemingly healthy economic conditions, however, critically depend on extra-ordinarily loose monetary and fiscal conditions in Asian and other major countries. For example, the debt to GDP ratios and debt service ratios of some Asian countries rapidly increased after the last global financial crisis. Now, they have reached heights that outstrip their peers in other regions. This is particularly true of China but this trend has also presented itself in other countries including Australia and Korea - where, the debt/service ratio of non-financial sectors has recently increased significantly. Japan may be modest in the debt/service ratio arena, but the size of the BOJs monetary expansion has dwarfed others countries in the world.

Chart 1: Change in debt to GDP ratios and debt/service ratios of AP countries

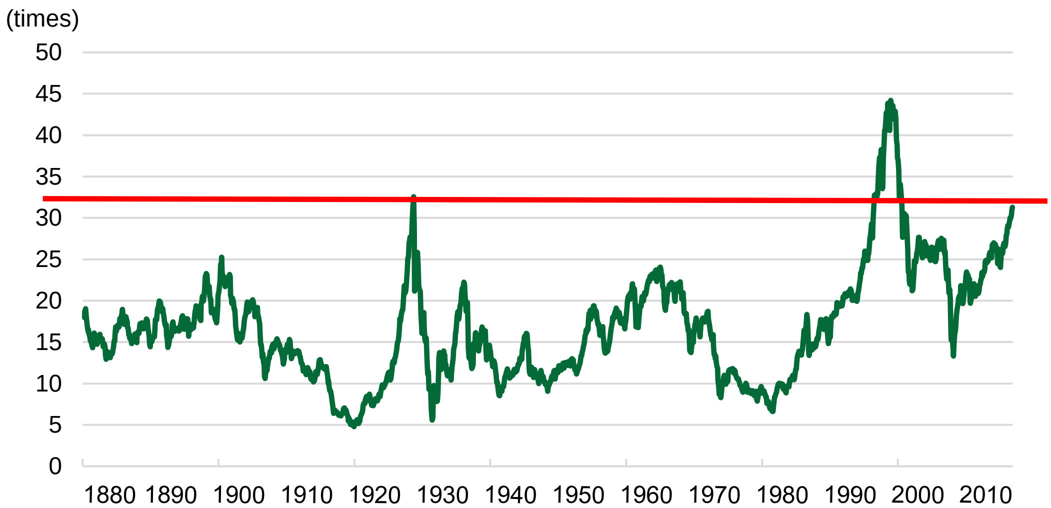


Note: The size of the circles is proportional to debt to GDP in 2016.
Source:IMF

1. Asian economies - decoupled from or still coupled with frothy US economy?

Current huge capital inflows into Asian economies from advanced economies, in particular the US, could easily be reversed. Once the risk-off sentiment of markets rises it could consequently trigger a massive shift of global capital to safe from risky assets. This includes assets denominated in emerging currencies as well as equity. Now that the US economy has entered into 9th year of expansion, which consequently is the third longest such period in the recent history, it is becoming more and more likely that its business cycle will peak out sometime in the near future. Also, the US CAPE (cycle-adjusted PER)[1] indicates that current stock prices have reached almost the second highest level in the last 100 years - behind only the halcyon days of the early 2000s IT bubble.

Chart 2: CAPE of the US over the last 100 years



Source: HP of Prof.Shiller

Very naturally, the stock market participants now become very sensitive to any events that may excuse them from leaving this exuberant dance party. This is particularly true when the FRB has recently started to normalize its monetary policy by gradually downsizing its balance sheet and raising its policy rate.

The prescient question then becomes, how are Asian economies vulnerable to the current US economic conditions? Since the relative size of the Chinese economy vis-a-vis the US economy has become much bigger than during the time of last financial crisis, there is a tendency to assume that a US recession is no longer of first importance in Asia so long as the Chinese economy stays robust. Unfortunately, this idea of Asia decoupling from the US seems to be as yet unrealized. Chart 3 clearly indicates that the US business cycle is highly correlated with Asian countries' cycles.[2] Rather, the degrees of correlation increased after the global financial crisis, with the exceptions of India and Korea. In most cases, the direction of causality as moving from the US to Asian countries (in terms of the Granger causality) can also be confirmed.

[1] Cyclically Adjusted PE Ratio (CAPE Ratio) is defined as price earnings ratio based on average inflation-adjusted earnings from the previous 10 years. Shiller, Robert, "Online Data, " **http://www.econ.yale.edu/~shiller/data.htm**, accessed 1 December 2017

[2] For the detail of the methodology, see:
Kose, M., Lakatos, C.,Ohnsorg, F., Stocker, M., *VOX CEPR's Policy Portal*, "Understanding the global role of the US economy," *February 2017,* **https://voxeu.org/article/understanding-global-role-us-economy**, accessed 1 December 2017

Chart 3: Correlation of business cycles and Granger causality between the US and Asian countries' cycles

Note1: In order of the correlation coefficient of the term, 2007M10 to 2017M09
Note2: show the p-value of f-statistics of "does not Granger Cause". So, the smaller value suggests the stronger probability that the causal correlations exist.
Source: Deliote, based on OECD CLI

Interestingly, there has been high and even strengthened levels of correlation between the US and Chinese business cycles after the financial crisis. While the post crisis outcome of the Granger causality in either direction cannot be clearly confirmed, this does not necessarily means that China depends less on the US. Rather, it indicates that both now depend upon one another. The Chinese economy is still entwined with the US economy not only through trade but also through capital flows and financial linkages. Although China has recently been strengthening its cross-border capital control, the spreading fear of a future slump in exports and the possibility of huge losses in overseas real estate investments could ignite risk-off sentiment among Chinese investors and subsequently spark further capital outflows. It should also be noted that China can no longer afford to prop up its economy through a massive fiscal stimulus as was the case in 2010. If both the Chinese and US economies turn downward simultaneously, the impact on other Asian economies are nothing short of a catastrophe.

Even if the Chinese economy could stave off negative impacts from the US economy, other Asian economies with relatively high exposure to the US economy, especially Japan, Australia and perhaps many SEA countries, would find a US economic downturn a hard pill to swallow. Japan could suffer from significant depreciation of the yen against the US dollar and would be therefore facing strong deflationary pressures once again. SEA countries could face a sudden drop in their exports and see a precipitous down-trend of the business cycle. Finally, Australia could face a sharp fall in commodity prices and potentially see the real estate bubble pop.

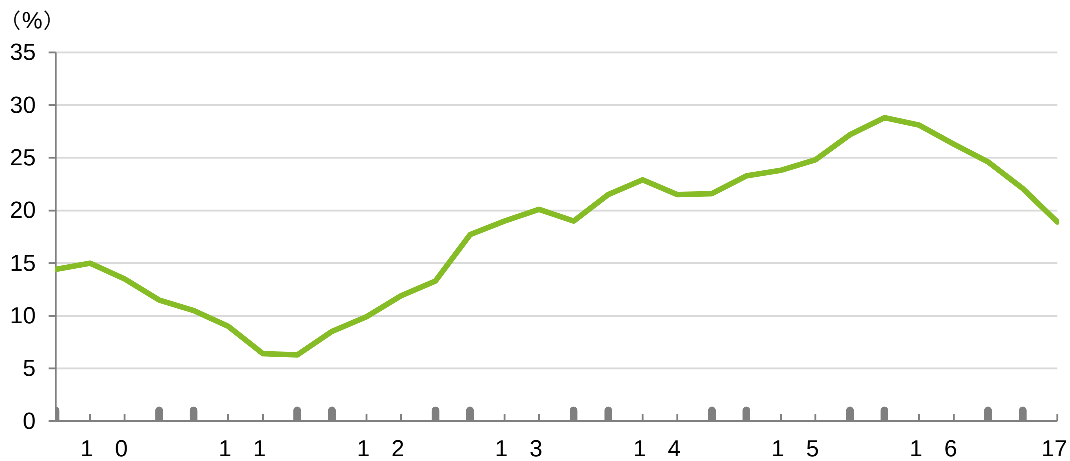
Thus, the number one risk for many Asian countries in 2018 might originate from the other side of Pacific Ocean.

2. Increasing deleveraging pressures on the Chinese economy

However, the opposite may also be true. The US and Europe are wondering if the next global crisis might be triggered on this side of the Pacific, that is, in China. While the Chinese economy is still seeing a relative high growth rate close to 7%, it has also been in the midst of a gradual deceleration throughout 2017 owing to the government policies to restrain rising housing prices, slow expanding shadow banking, and reign in regional governments' debts as well as reduce their overcapacity. In fact, many indicators demonstrate that China still has huge imbalances which need to be addressed going forward. The Chinese debt-GDP ratio has being increasing quite rapidly since June 2009 and has now reached 210.2%, which is one of the highest among major countries. Also, its debt-service ratio recorded an increase from 13% in 2006 to 20% in 2016.[3] The increase is mainly due to the stimulus policy targeted at boosting private capital expenditures in order to ensure high growth rates even in the aftermath of global financial crisis and more recently to defend against the headwinds of a declining labor population.

Another often cited indicator to illustrate Chinese financial imbalances is the credit-GDP gap, which measure the gap between actual development and the trend of credit-GDP ratio. According to BIS, if this number surpass 10%, said country will face a financial crisis within 3 years with the probability of more than 66%.[4] China has already entered into 6th year since this number exceeded 10%. It peaked at 29% in March 2016, and has now declined to 19%. Fortunately we have not yet seen a full-blown financial crisis materialize in China but the authorities seem to vigilantly guarding against such a possibility and working to enhance measures to reduce the current imbalances. Mr. Zhou Xiaochuan, governor of the People's Bank of China, has echoed this defensive stance when he recently warned of a possible Minsky moment[5] facing China. He stated that "if we are too optimistic when things go smoothly, tensions build up, which could lead to a sharp correction, what we call a 'Minsky Moment'. That's what we should particularly defend against.[6]"

Chart 4: Credit to GDP gap of China



Source: BIS

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[3] BIS, "Statistics explorer"
http://stats.bis.org/statx/srs/table/j?m=A
http://stats.bis.org/statx/srs/table/g1
This credit-GDP ratio is based on total credit to the private non-financial sector, as % of GDP.
[4] BIS, BIS Quarterly Review "International banking and financial market developments," September 2017
https://www.bis.org/publ/qtrpdf/r_qt1709.pdf, accessed 1 December 2017
[5] A Minsky moment is generally defined as an abrupt huge collapse of asset prices as a result of the credit or business cycle.
[6] *Financial Times*, "China central bank chief wans of 'Minsky moment'," October 20, 2017 https://www.ft.com/content/4bcb14c8-b4d2-11e7-a398-73d59db9e399, accessed 1 December 2017

The Japanese experience of a Minsky Moment might help us foresee the future course of the Chinese economy. The Japanese economy encountered just such a Minsky Moment around 1990 when the stock and real estate bubbles suddenly collapsed. These asset bubbles formed partly due to a very loose monetary policy which was intended to prop up domestic demand and thereby reduce the trade surplus. When the bubble burst, mounting non-performing loans (NPLs) in the banking sector and significant overcapacity in some industries led to a serious banking crisis. The first wave of disposal of NPLs and excess capital stock ended around 2000 but, to the surprise of Japanese policy makers, this was followed by a second wave of NPLs and overcapacity. In hindsight, at the time potential growth rates were consistently overestimated by both Japanese policy makers and Japanese industry.[7] This is particularly prescient because its potential growth rate was trending significantly downward during the 1990s mainly due to demographic changes in the country.[8]

As our edition 3 paper mentions, demographic changes could have a significant impact on economic growth. Turning points in demographic development usually occur only once a century (or over an even longer period) and people are not naturally inclined to brace for changes on this kind of time horizon. This is particularly the case for countries which have long enjoyed population growth and must suddenly face such a turning point. Asset prices are the product of future growth expectations and if these expectations do not correctly adjust to match the demographic reality, then asset prices face a much more violent adjustment when the economic reality catches up.

The current Chinese economy shares many ominous phenomena with the Japanese economy of the 1990s-2000s. Such points of overlap include the piling-up industrial overcapacity and potential NPLs, which were partly created by stimulus policies and partly by an institutional setting that motivates major players in the economy to procrastinate on resolving said problems. In addition, China has recently peaked out of its demographic bonus period – a situation similar to Japan in the 1990s. As Chart 5 indicates, if China follows Japan's pattern, an economic bubble may soon burst. This could then be followed by a long period of stagnation as people adapt to the new demographic reality. Even if China acts based on the lessons learned from Japan's history, this means that economic pain is frontloaded. That is to say, we may see an introduction of serious adjustment policies in the coming years to put China on a more stable growth trajectory.

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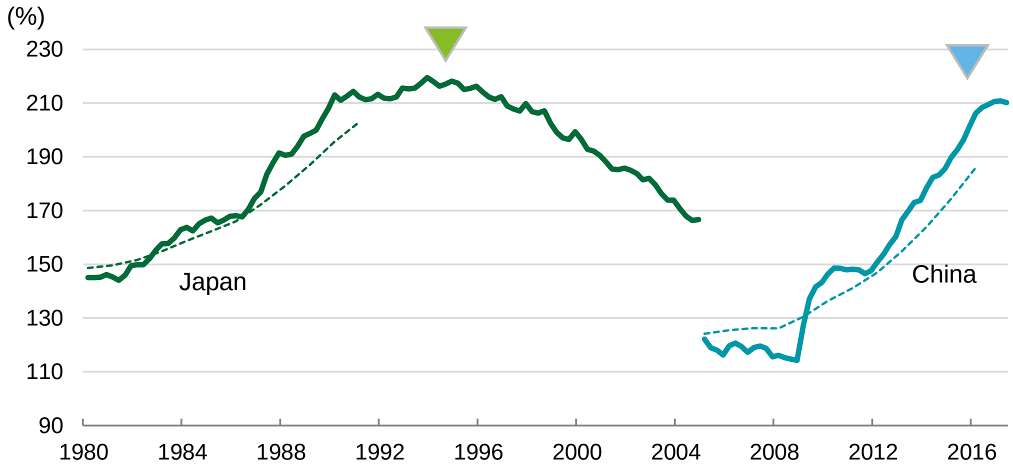
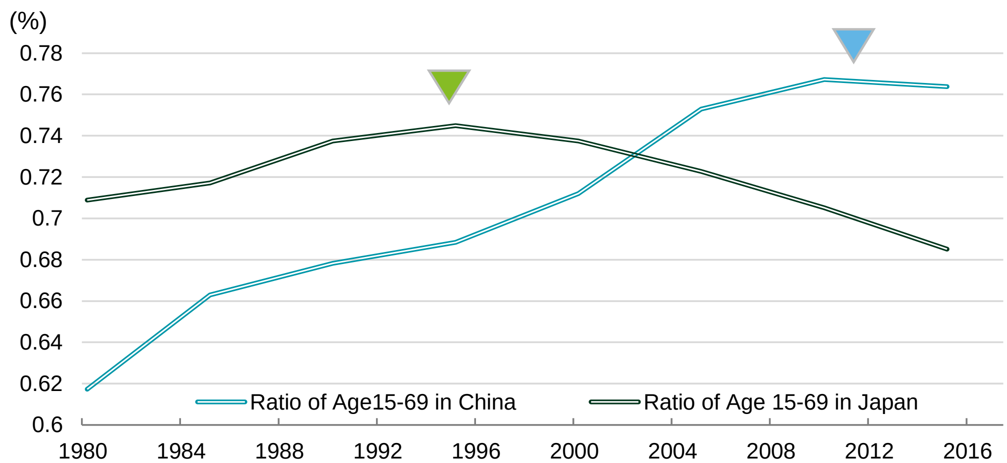
[7] For example, Masaaki Shirakawa, then-BOJ Governor, once mentioned that "interestingly, the recurrent declines in the total fertility rate have long been regarded as a one-off aberration for each point in time. Such mis-recognition led to the recurrent overestimation in the official projection of the fertility rate every five years,
which has been used in the actuarial valuations for the Japanese public pension system, since the year 1976." "Shirakawa, Masaaki "Demographic Changes and Macroeconomic Performance: Japanese Experiences", Opening Remarks at 2012 BOJ-IMES Conference hosted by the Institute for Monetary and Economic Studies, the Bank of Japan, May 2012
http://www.boj.or.jp/en/announcements/press/koen_2012/data/ko120530a1.pdf, accessed 1 December 2017

[8] For example, Kazumasa Iwata, ex-BOJ Deputy Governor and now the president of Economic and Social Research Institute (ESRI), Cabinet Office, Japanese government, and Kiyohiko Nishimura, ex-BOJ Deputy Governor and now the professor of the National Graduate Institute for Policy Setting, often indicated the close relationship between demographic factors and the Japanese financial bubble formation and its bursting.
Iwata, Kazumasa "Shihanseiki no Nihonkeizai to Makuro keizai seisaku (Development of Japanese economy and macroeconomic policy over the last 25 years <the author's translation>) " ESRI, 2010
http://www.esri.go.jp/jp/prj/sbubble/history/history_04/analysis_04_05.pdf, accessed 1 December 2017
Nishimura, Kiyohiko "Kongo no Jinko-dotai ga asia no keizai he oyobosu fu no eikyo (Negative impacts of demographic factors on Asian economies – Some lessons from Japan, US and Europe experiences <the author's translation>)", Voice of Asia Forum panel discussion held by Deloitte Japan, 2019

Chart 5: Credit to GDP gap and aging population (ratio of age 15-67 population against total) – China and Japan

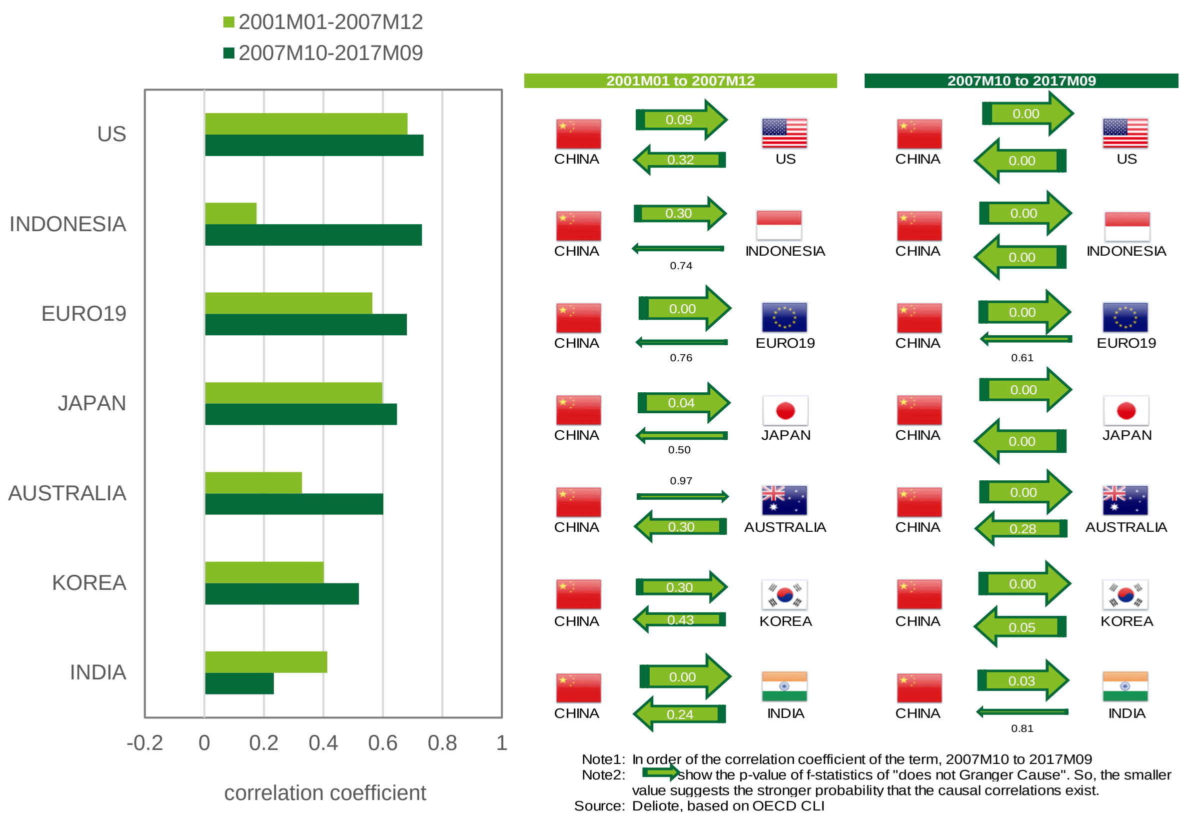




Source:BIS, UnitedNations

Should the Chinese economy sneeze, the world economy, and particularly Asian economies will catch the cold. Chart 6 illustrates the impacts of a Chinese economic downturn on other Asian countries. The correlation between China and Asian counties tends to increase significantly post global financial crisis - in particular, we can see this in Australia, Korea and Indonesia. Thus, it is not only the Chinese economy, but also all Asian economies which now must brace for and create contingency plan to manage a Chinese Minsky Moment.

Chart 6: Correlations with business cycles and Granger causality between Chinese and Asian countries' cycles



3. Housing bubble and debt-ridden non-financial sectors - Australia and Korea

A real estate bubble is brewing not only in China, but also in Australia and Korea. In Australia, house prices have risen for the past 4 years (chart 7) thanks mainly to strong demand, partly supported by overseas investment and by population growth. Also current low interest rates and "exuberant expectations" have backed price gains. One concern is that housing price rises are associated with a households and non-financial companies holding high debt service ratios. Gross debt to income ratio of nonfinancial companies in Australia is the highest within the G20 advanced economies, and its debt service ratio is also much higher than others[9]. The Reserve Bank of Australia has recently expressed worry over Australia's real estate bubble[10] and may consider some counter-measures including monetary tightening, macro-prudential policy implementation, and raising taxes on foreign investors. The Australian economy is currently quite robust thanks to bullish commodity prices, but it could easily falter should internal or external events trigger a housing bubble correction. This would then force many companies with high debt service ratios into bankruptcy.

Korea faces a slightly different situation from Australia. Housing price rises in Korea tend to be limited to certain areas in big cities and thus it cannot be classified as a nation-wide boom. Still, "the average apartment price in Seoul has risen more than 20 per cent over the past four years[11]" and the Korean government has now become serious about stabilizing the city's

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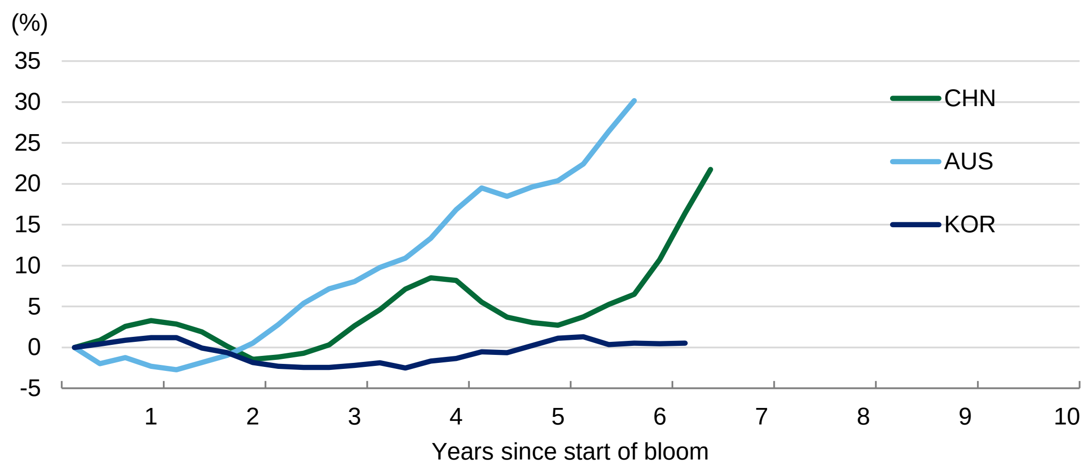
[9] According to the IMF, "Global Financial System Report (GFSR)," October 2017, gross debt to income ratio of non-financial companies in 2016 almost reaches 600% and its debt service ratio diverges higher from the mean by around 10%. https://www.imf.org/en/Publications/GFSR/Issues/2017/09/27/global-financial-stability-report-october-2017,
[10] *ABC News,* "Reserve Bank concerned on highly indebted households, real estate bubble," March 21, 2017. http://www.abc.net.au/news/2017-03-21/reserve-bank-warns-housing-bubble-in-sydney-and-melbourne/8372856, accessed 1 December 2017

[11] *Financial Times*, "South Korea looks to cool property market with tax rise," August 2, 2017 https://www.ft.com/content/5fb472d4-774e-11e7-90c0-90a9d1bc9691, accessed 1 December 2017

surging property markets. Household spending in Korea has been the main driver of the bubble, which has been pushing up house prices by increasing mortgage debt. The household debt service ratio already ranks as one of the highest among G20 advanced countries[12] and the government is now attempting to rein in household debt by introducing tighter mortgage requirements and raising capital gains taxes. Korea is currently enjoying surging exports thanks to an upbeat silicon cycle, but the country also faces the risk of its economy being stumbling over household defaults should real estate prices fall sharply.

Chart 7: Real house price growth



Source:IMF

4. Sensitive capital inflows – SEA

20 years after the Asian financial crisis, the countries at the epicentre of the shock have now established robust economic and banking systems. They have also become much more resilient against shocks from the US and other advanced economies. Still, many of these countries continue to be dependent on capital inflows. As such, a sudden rise in risk-off sentiment precipitating a stock market crash, or a sudden increase in price/interest rates in advanced economies (particularly in the US), could cause another Asian tantrum, or perhaps even another crisis in SEA countries.

Chart 8 indicates the relationship between gross capital inflows and economic growth rates. We can see a very strong relationship between these data in counties like Thailand and Malaysia[13]. Moreover, Malaysia has one of the highest external financing requirements through 2020 among major emerging economies[14]. As demonstrated by some researchers, a US rate hike and possible US recession could still be a major factor in pulling capital out of SEA countries[15]. Unlike during the Asian financial crisis, many countries in SEA are enjoying a relatively high current account surplus and foreign reserve levels. Compared to the taper tantrum in 2012, however, some countries have experienced a constant decline of reserves

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[12] According to the IMF, "Global Financial System Report (GFSR)," October 2017, gross debt to income ratio of households in 2016 reaches more than 150% and its debt service ratio diverges higher from the mean by around 1.5%.

[13] IMF GFSR October 2017 indicates a general strong relationship between gross capital inflows and economic growth rate of emerging economies.
IMF, "Will the Revival in Capital Flows to Emerging Markets Be Sustainable," Global Financial System Report (GFSR) - Box 1.2, October 2017

[14] IMF, "Figure 1.15 Emerging Market Economy Capital Flows," Global Financial System Report (GFSR), October 2017

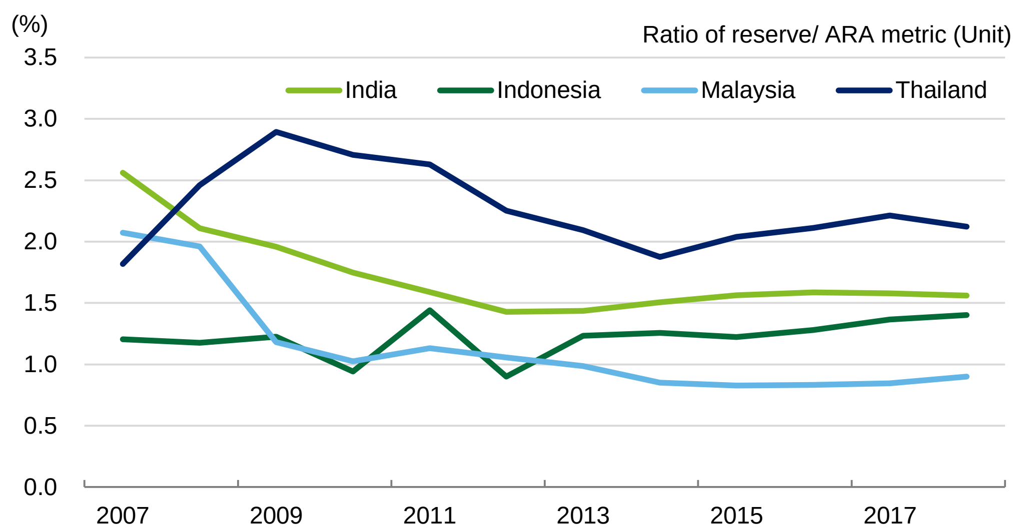
[15] For example, Hannan (2017) indicates the steepness of yield curve of the US could be a major driver of capital flows in emerging economies during high tension periods.
S. A. Hannan, "The Drivers of Capital Flows in Emerging Markets Post Global Financial Crisis," IMF Working Paper, February 2017
Also, IMF (2017) illustrates a strong relationship between the US recessions and fall in capital flows to emerging economies.
IMF, "Will the Revival in Capital Flows to Emerging Markets Be Sustainable," Global Financial System Report (GFSR) Box 1.2, October 2017

adequacy (percent of IMF defining ARA <Assessing Reserve Adequacy> metrics). Thailand is actually at risk of losing ground to regional competitors because of long-term underinvestment into infrastructure and education.

Chart 8: Relationship between gross capital inflows and growth rate

Source:IMF Source:IMF

Chart 9: Developments of reserve adequacy



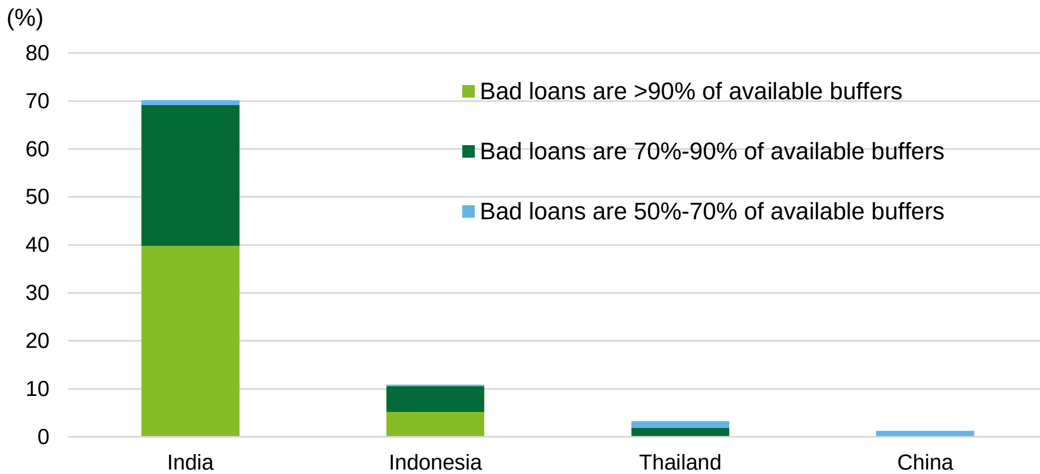
Source:IMF

5. Mounting NPLs – India and Indonesia

As indicated by Chart 3 and 6, the Indian economy retains its rare independence from the impacts of the US and Chinese economies. The Indian economy has faced a very gradual deceleration of growth in 2017 mainly owing to government policies. The introduction of GST and demonetization (cancellation of high denominated banknotes) stand out in particular. But the country now seems to be on course for a high growth trajectory, which is partly supported by the government's recently announced infrastructure projects.

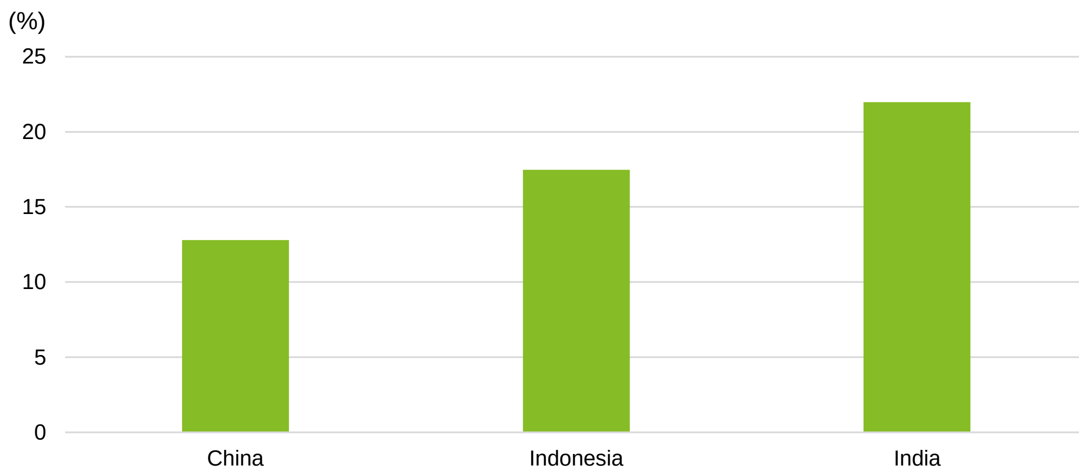
India is however not excepted from other Asian economies, which struggles with structural problems. One serious issue for India is a high and still increasing level of NPLs in its banking sector. Chart 10 indicates that their NPL level is one of the highest among emerging economies and may consume 22% of bank capital.[16] Banks are also already under the strong pressure to increase capital significantly because of the adoption of Basel III requirements. This NPL problem reflects the weak financial condition of the corporate sector, in which the share of debt at risk (interest coverage ratio is less than 1) is one of the highest among emerging economies (Chart 11).[17] Indonesia follows India in this measure by a small margin, implying that potential NPLs is increasing in its banking system.

Chart 10: Percentage of banking assets by the categories with bad loan ratios vis-a-vis capitals (2016)



Source:IMF

Chart 11: Share of Debt at Risk at the corporate sector (2016)



Source:IMF

The government's recent policy to bail out huge debts incurred by farmers in India has potentially worsened the situation. The NPL burden weakens the lending capacity of the banking sector and thus makes the government's agenda to realize

[16] IMF, "Figure 1.17 Percentage of Assets by the Ratio of Nonperforming and Problem Loans over Tier 1 Capital and Loan Loss Provisions, 2016," Global Financial Stability Report (GFSR), April 2017
https://www.imf.org/en/Publications/GFSR/Issues/2017/03/30/global-financial-stability-report-april-2017

[17] IMF, "Figure 1.15 Emerging Market Corporate Debt under Rising Risk Premiums and Protectionism," Global Financial Stability Report (GFSR), April 2017

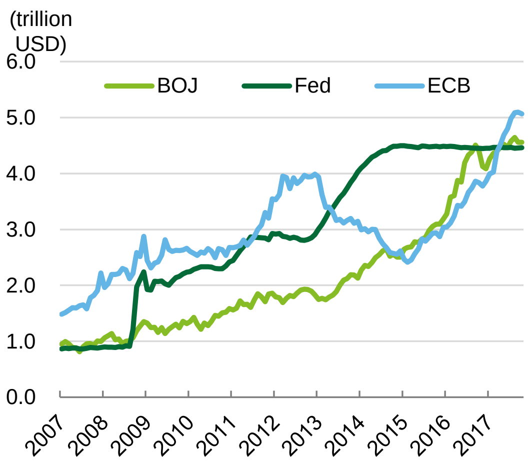
sustainable high growth more difficult. The Indian government has recently announced a policy to speed up the disposal of NPLs owned by state banks by injecting public money into the system[18]. This is surely an important step to normalize the banking sector but these actions could risk strengthening linkages between banking and sovereign issues (as was the case in Europe during 2010-12) without fixing the mechanism which creates NPLs itself.

6. Mounting BoJ's balance sheet -- Japan

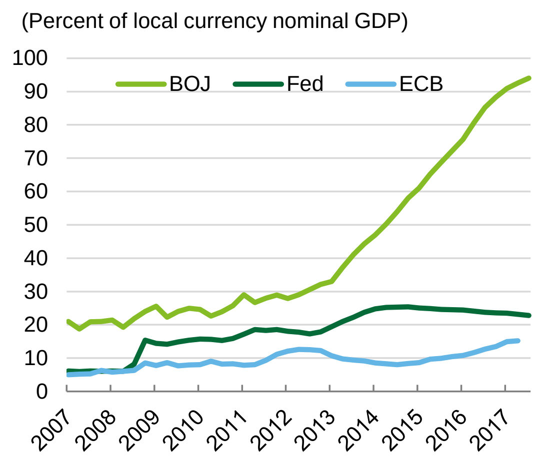
The Japanese economy, once held up as a symbol of fragile "miraculous" economy may finally be climbing out of a deep ditch of stagnations and moving back towards main stage growth. Japanese growth rates are robust and well over potential growth. Japan is now coming very close to declaring the end of deflation as all three important indicators, GDP gap, GDP deflator, and unit labour cost, are now ticking positive for the first time in the last 25 years. The current improving Japanese economy, as was the case at the height of its economic growth during 1950s and 1960s, could be a glimmer of hope for many other Asian economies facing similar problems to Japan. Currently many are following Japan's example economically (partly owing to an economic growth model imported from Japan) as well as demographically, thought they lag slightly behind Japan.

So has the Japanese economy truly revived? Perhaps. But we have yet to see a definitive answer because the core consumer price index is still hovering around the 0-1% range. It shows no clear sign of any future sustainable increase supported by wage increases, despite the extremely tight labour market. The conundrum of the "lost Philips Curve" may be much more serious in Japan than in the US. Another big concern for Japan is the future cost to be paid for past fiscal and monetary economic stimulus. The Japanese sovereign debt to GDP ratio is by far the highest in the world reaching 238%. As well, the BoJ's balance sheet has ballooned very rapidly for the last 4 years thanks to its qualitative and quantitative easing programmes. These actions, starting from April 2013, have now pushed the BOJ's asset to GDP ratio higher than its peers who have also conducted quantitative easing, the FRB and the ECB.

Chart 12: BoJ's balance sheet vis-a-vis FRB and ECB



Source:Bloomberg



Source:Bloomberg

[18] *Bloomberg*, "India to Inject $32 Billion to State Banks to Boost Loan Growth," October 24, 2017 **https://www.bloomberg.com/news/articles/2017-10-24/india-to-inject-32-billion-to-bolster-capital-at-state-banks**, accessed 1 December 2017

The difficulties facing Japan or the BoJ are two-fold: If the Japanese economy is again trapped by a deflationary spiral (which could be triggered by as US recession or the Chinese intensifying their structural policy), the BoJ has no more effective measures in its tool box to stave off the worsening situation. Unlike the FRB or the ECB, which have already started the process of normalizing their extraordinary monetary policies, the BoJ is not yet ready to enact its exit policy and thereby arm themselves with the ammunition needed to fight a future crisis. This is not only due to the current subdued inflation rate, but also due to possible political pressures to keep the rate low as long as possible. Meanwhile, even if Japan finally sees true inflation return, this could also cause problems by having significantly increased its fiscal burden arising from interest rate hike. Given the huge size of Japanese sovereign debt, some are now arguing for parts of government debt to be replaced by console bonds and financed via the BoJ. Often called “Helicopter Money”, such actions were first proposed by ex-FRB chair B. Bernanke. Thus, Japan walks a tightrope. They are temporarily enjoying the current balancing act, the conundrum comes when the country tips- either towards deflation or towards hyper-inflation.

7. Remaining non-financial issues dragging down Asian economy -- geopolitics, trade and social justice

This article focuses mainly on the financial issues facing Asian economies as, ten years after the global crisis, 2018 could be the hottest year yet. This does not mean, however, that financial problems are the only serious issues which could cripple Asian economies in 2018. We must also pay attention to geopolitical turmoil as well. Rising military tensions over North Korea could be the trigger of world risk-off sentiment and form the basis of the reversal of capital flows. A military engagement would also entail huge human and physical damage to countries directly involved, including not only South Korea but also Japan and China. Now that the international and Chinese economic sanctions against North Korea have been further strengthened, chances of a breakthrough in the standoff feel like slowly receding only to motivate North Korea into a more extreme stance.

Another geopolitical issue with some importance for Asia is the increasing instability of politics in the Meddle-East, particularly in Saudi Arabia. The current political upheaval led by the Saudi crown prince certainly could promote his agenda of economic reforms, but his actions could also destabilize Saudi and regional politics, subsequently inviting an oil price hike. Many Asian countries critically depend upon oil imported from the Middle-East. The current rosy trade situation that Asian counties are enjoying could crumble should oil prices shoot up.

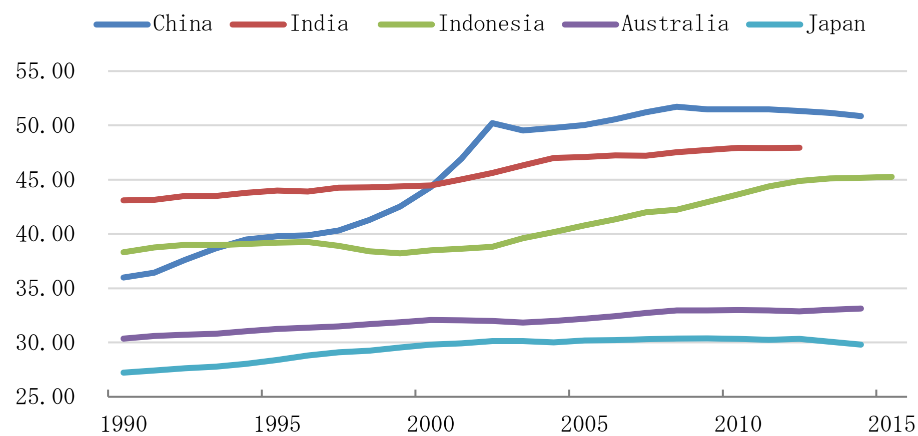
Spreading trade protectionism is another big concern for Asia. This fear particularly comes from the actions of the US, which has shown its intention to review all legacy free trade mechanisms through the lens of “America First”. Actual US movement to address bilateral trade imbalances was rather limited in 2017, but this is likely to intensify in 2018 before the mid-term elections in November. Its impacts could be strongly felt, not only by countries with huge bilateral surpluses with the US (including China, Japan and Korea), but also by Malaysia, Thailand and Vietnam which have high manufacturing export levels to the US as a share of GDP.

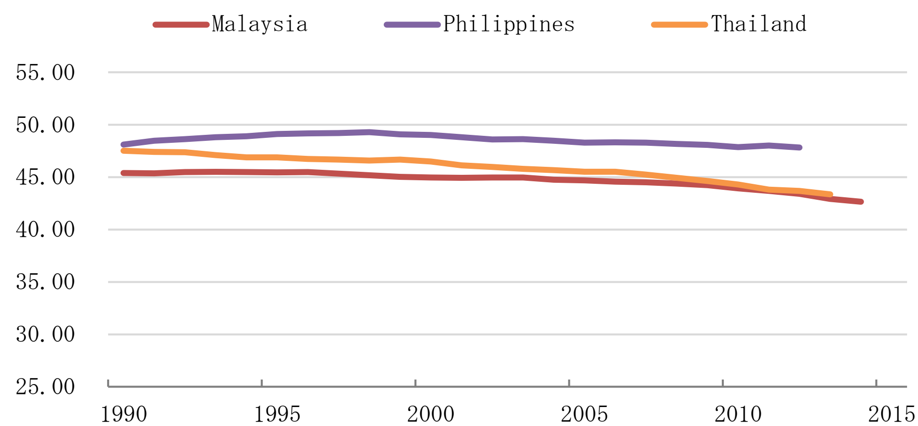
Lastly, one serious social issue often highlighted recently, partly owing to current economic successes, is the increasing divide between the rich and the poor standing as a high barrier to avoid falling into the middle-income trap[19]. As Chart 13

[19] Income equality is just one of many causes of the middle-income trap, which many emerging economies faced in the past to see a sudden drop in growth rate once their per capita income reach the middle income level. However, the increasing number of recent researches highlight income inequality as a main factor of middle-income trap. They include;
Egawa, A., “Will Income Inequality Cause a Middle-Income Trap in Asia?” Bruegel Working Papers, June, 2013
http://bruegel.org/2013/10/will-income-inequality-cause-a-middle-income-trap-in-asia/ accessed 1 December 2017
Wang, C. and Lan, J., “Inequality, Aging, and the Middle Income Trap,” ADBI working paper series, October 2017
https://www.adb.org/sites/default/files/publication/372326/adbi-wp785.pdf, accessed 1 December 2017
Zhou, H. “Will China Avoid the Middle-Income Trap?” MPRA, November, 2017
https://mpra.ub.uni-muenchen.de/82688/1/MPRA_paper_82688.pdf, accessed 1 December 2017

indicates, in many Asian countries income equality tends to be large and is actually deteriorating recently, might cause political instability. Subsequent populist-oriented policies could derail innovation and inclusive sustainable demand growth. In this sense, populism is not an isolated problem on the other side of the Pacific Ocean. It is also becoming an Asian owned issue to be reckoned with.

Chart 13: Income inequality (Gini Index, Disposable Income)





Note: Solid lines indicate mean estimates; shaded regions indicate the associated 95% uncertainty intervals.
Source: Standardized World Income Inequality Database v6.0 (Solt 2016).

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