CLSA GREED & FEAR

Christopher Wood christopher.wood@clsa.com +852 2600 8516

The “big picture” reviewed

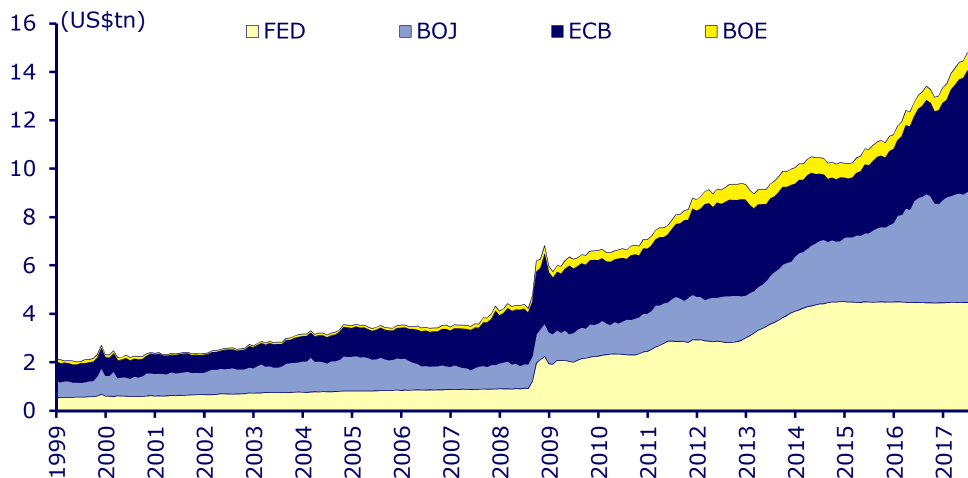
Tehran

The theme of the new *Asia Maxima* (*A question of contraction*, 4Q17) is the beginning of quantitative tightening. While the initial steps (US$10bn/month in 4Q17) will be tiny in the context of the Fed’s balance sheet of US$4.46tn, this nonetheless marks a potentially historic inflection point given the attempt to normalise monetary policy nearly nine years after the American central bank commenced quantitative easing in December 2008. A look at the “Big Picture” is, therefore, warranted.

Since late 2008, G7 central banks, comprising the Fed, the Bank of Japan, the European Central Bank and the Bank of England, have committed to massive balance sheet expansion. Indeed in aggregate their balance sheets have continued to rise during 2017 even though the Fed itself stopped expanding its own balance sheet in November 2014 when it completed the process of so-called tapering. Thus, aggregate assets of these four central banks have risen by 14% from US$13tn at the end of 2016 to US$14.9tn at the end of September (see Figure 1).

Figure 1

Major G7 central banks’ balance sheets



Source: CLSA, Bloomberg, Federal Reserve, Bank of Japan, Bank of England, ECB

The fact that the Fed is about to start balance sheet reduction is to *GREED & fear* obviously a risk for asset markets since it amounts to another form of monetary tightening. That it has not yet caused more market fallout reflects two factors. First, the Fed is beginning extremely tentatively by decreasing its reinvestment of principal payments from maturing bonds. Such payments will be reinvested only to the extent that they exceed gradually rising caps. To recap the details again, the decline in securities holdings will be initially capped in 4Q17 at US$6bn per month for Treasuries and US$4bn per month for agency debt and mortgage-backed securities. These caps will be increased in steps of US$6bn and US$4bn, respectively, at three-month intervals until they reach US$30bn and US$20bn per month, and will then remain in place until the Fed judges that it is “holding no more securities than necessary” (see Figure 2).

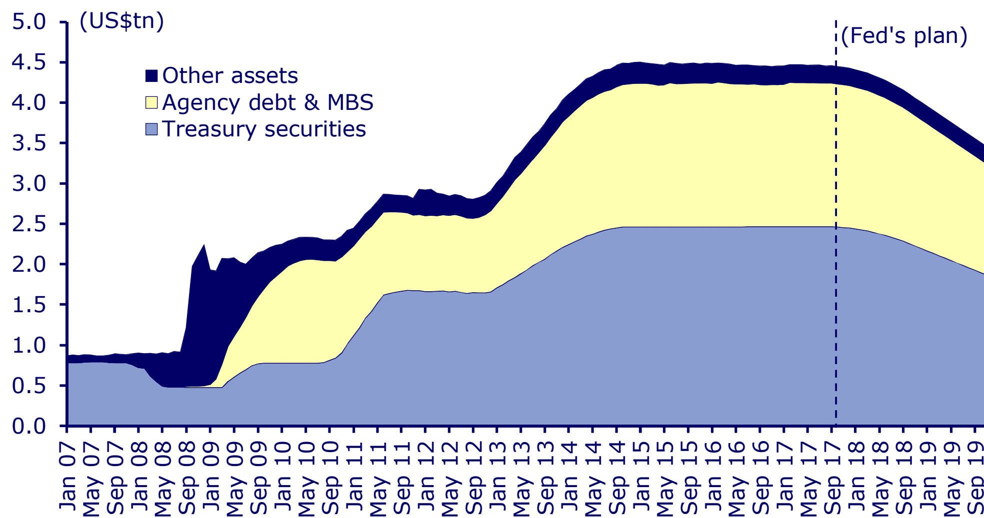
For important disclosures please refer to page 17.

Prepared for - W: olivier.parriaud@ca-indosuez.sg

Christopher Wood christopher.wood@clsa.com +852 2600 8516

Figure 2

Federal Reserve balance sheet reduction plan



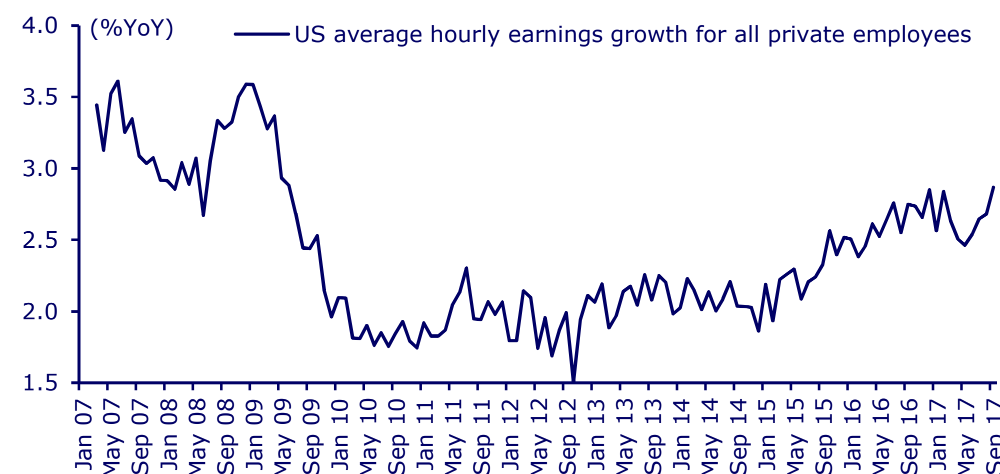
Source: Federal Reserve, CLSA

Second, other G7 central banks are, for now, still expanding in aggregate. Yet the Fed's action in embarking on quantitative tightening remains surprising to *GREED & fear* in the sense that the trend in inflation has run below the American central bank's expectations this year and remains well below the Fed's formal 2% target. Indeed at the same FOMC meeting in September, which saw the formal announcement of the commencement of balance sheet reduction, the Fed also lowered its median expectations for inflation this year and next. Thus, the Fed lowered its core PCE inflation forecast this year from 1.7% projected in June to 1.5%, and from 2.0% to 1.9% for 2018.

It is also the case that wage growth had remained tepid until the data announced last Friday. Average hourly earnings growth had slowed from 2.9% YoY in December to 2.5% YoY in June before accelerating to 2.9% YoY in September (see Figure 3), while the wage growth for July and August was revised up from the previously reported 2.5% YoY to 2.6% and 2.7%, respectively. The critical issue now is whether the September data is weather-related. Meanwhile, the Fed had signalled at the same September meeting that it plans more rate hikes over the next year. Last Friday's wage data now makes a December rate hike look all but inevitable. The Fed funds futures market is now discounting a 79% chance of a December rate hike, up from 44% a month ago.

Figure 3

US average hourly earnings growth



Source: US Bureau of Labour Statistics

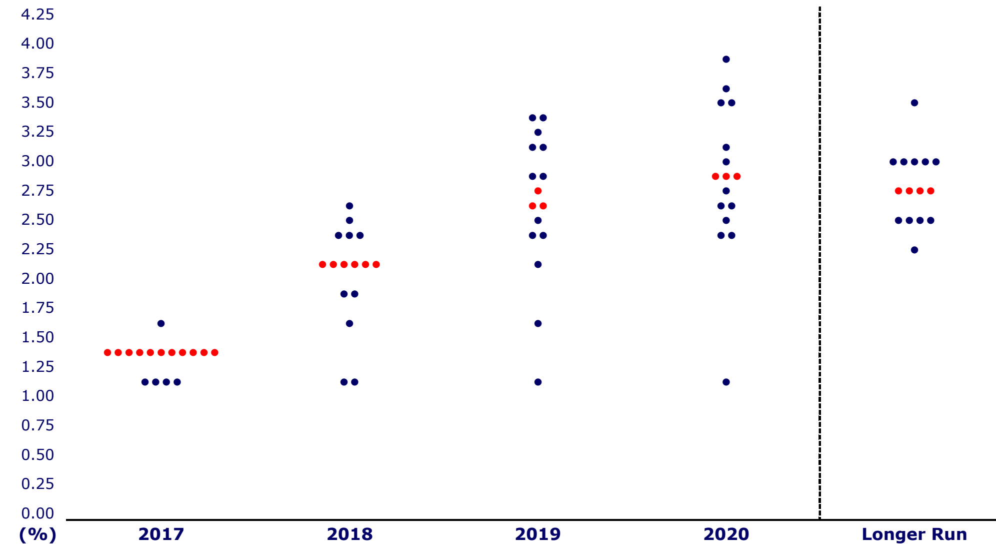
Prepared for - W: olivier.parriaud@ca-indosuez.sg

Christopher Wood christopher.wood@clsa.com +852 2600 8516

Chairwoman Janet Yellen also said in her post-meeting press conference on 20 September that "additional gradual rate hikes are likely to be appropriate over the next few years to sustain the economic expansion". The above comment remains surprising in the context of the extremely dovish history of the Fed run by both Yellen and her predecessor Ben Bernanke, and raises the issue of whether the Fed is still "data dependent". The answer is that there remains a division within the Fed between those who prioritise "data dependency", and who are still hoping that this year's downturn in inflation proves to be transitory, and those who prioritise normalising monetary policy almost regardless of the data. This division is all the more important given that Yellen's term in office expires in early February. It is possible that she could be reappointed. But for now the issue of who will succeed her remains unknown, despite a lot of speculation, while it is also the case that President Donald Trump, who will make that decision, also has to select another four Fed governors by mid-2018.

Figure 4

Fed's Dot Plot: FOMC members' fed funds rate target at year end (as of 20 Sep 2017)



Note: Red dots = median. Source: Federal Reserve

The result is that there is genuine uncertainty over the direction of American monetary policy over the next 12 to 18 months. True, the so-called "dot plots", where Fed governors make their rate forecasts, indicate 100bp of tightening over the next 15 months (see Figure 4). But financial markets have long ceased paying too much attention to these dots since the previous forecasts have proved so wrong. This is one reason why the money markets are expecting only 50bp of tightening over the next 15 months. There is also a sense in the markets that Trump, a property developer by profession, is not going to appoint to the Fed chairmanship a hard-line advocate of monetary policy normalisation. The other point is that the foreign exchange markets have not been acting like they believe in a hawkish Fed with the US dollar index declining by 9.1% year to date and ending the quarter just above a major "technical" support level (see Figure 5), though now 2.1% above the intraday low reached in early September.

Prepared for - W: olivier.parriaud@ca-indosuez.sg

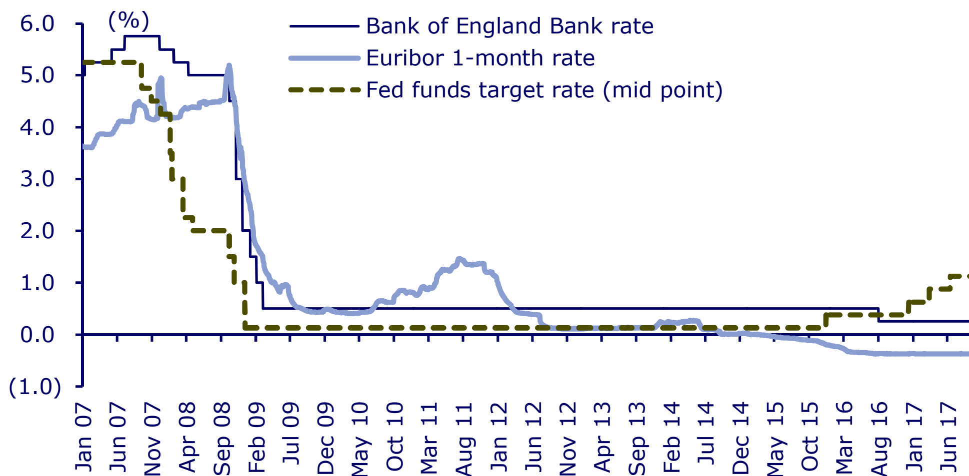
Christopher Wood christopher.wood@clsa.com +852 2600 8516

Figure 5
US Dollar Index (DXY)

Source: Bloomberg

One reason the US dollar has been weak for most of this year remains that foreign exchange markets have also begun to focus on the reality that there is much more potential for other G7 central banks to tighten than there is for the Fed. Remember that the Fed has already raised interest rates by 100bp to 1.00-1.25% since December 2015 while the ECB is still expanding its balance sheet by €60bn a month; though Mario Draghi said in his post-meeting press conference in early September that the ECB expected to take the "bulk of decisions" on tapering at its October policy meeting due to be held on 26 October. The ECB's balance sheet currently totals €4.34tn while the euro's short-term interest rate is still a negative 37bp (see Figure 6).

Figure 6
Euribor 1-month rate, Fed funds rate and BoE Rank rate



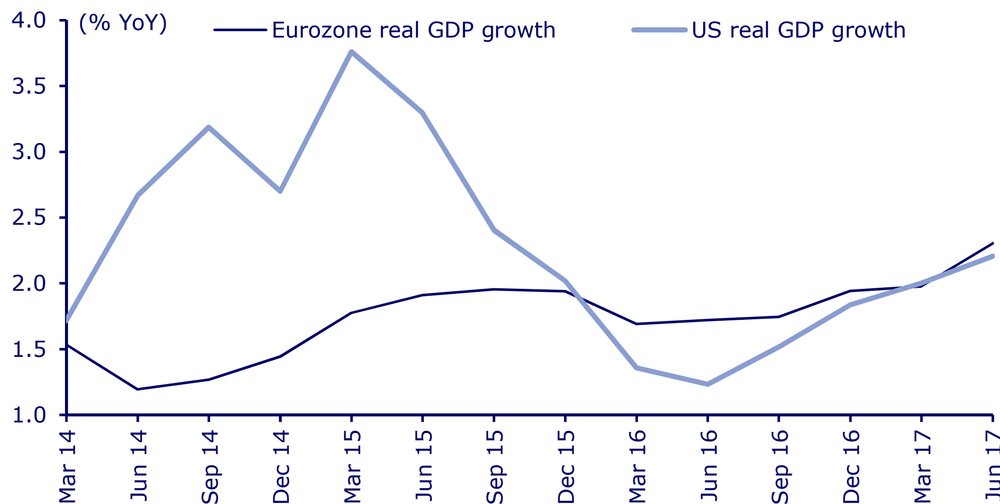
Source: Bloomberg

This is why there will potentially be a lot more focus on ECB normalisation in coming months given that the Eurozone economy has been growing more rapidly than the American economy in recent quarters. Thus, Eurozone real GDP rose by 2.3% YoY in 2Q17 and was up an annualised 2.0% over the past two years. By contrast, US real GDP rose by 2.2% YoY in 2Q17 and was up an annualised 1.7% over the past two years (see Figure 7).

Prepared for - W: olivier.parriaud@ca-indosuez.sg

Christopher Wood christopher.wood@clsa.com +852 2600 8516

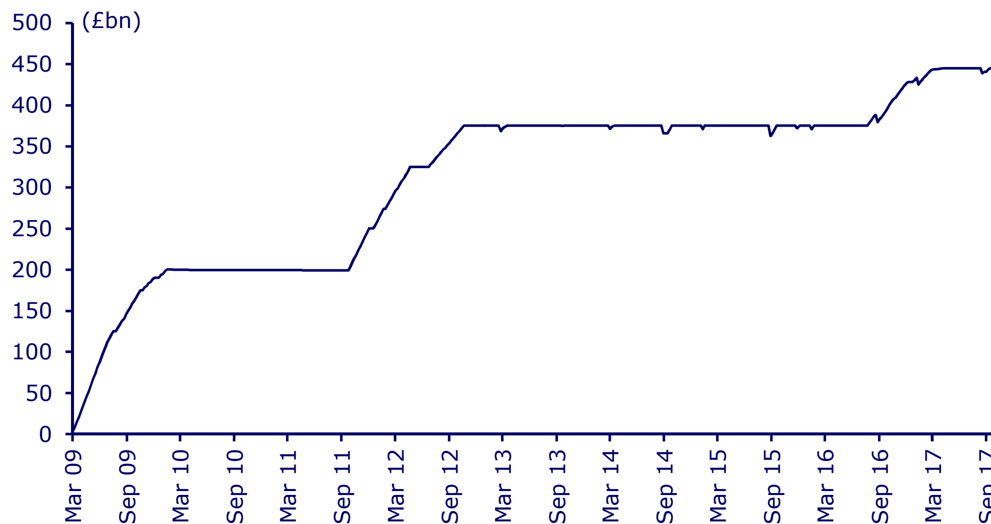
Figure 7
Eurozone and US real GDP growth



Source: Datastream, US Bureau of Economic Analysis, Eurostat

Similarly the Bank of England has also last quarter begun to make noises about renewed tightening. Remember that the central bank cut rates and resumed balance sheet expansion after last year's surprise Brexit "No" vote. The BoE cut its policy Bank Rate by 25bp in August 2016 to 0.25% (see Figure 6), and also committed to purchase an additional £60bn of government bonds and £10bn of corporate bonds. Such purchases have been fulfilled since April (see Figure 8).

Figure 8
Bank of England asset purchase programme (gilts and corporate bonds)



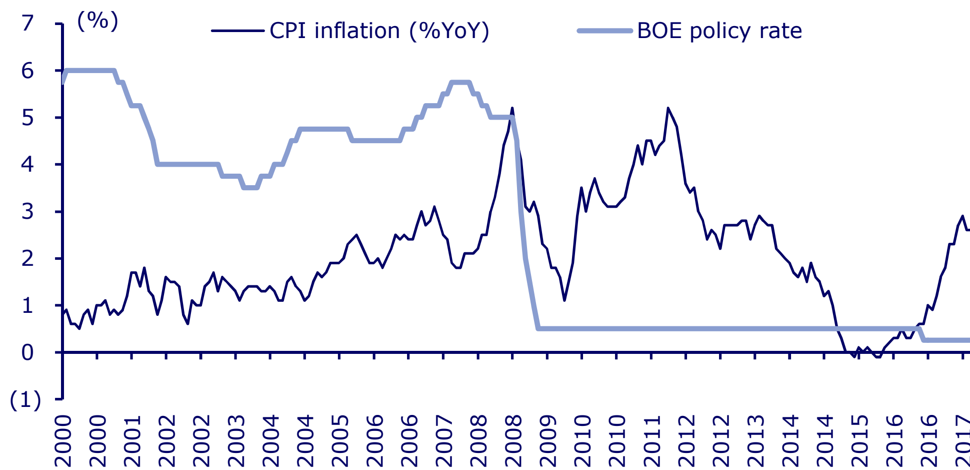
Source: Bank of England

For now markets remain sceptical about any tightening given that the Bank of England under Mark Carney has, on at least three occasions during his unremarkable tenure, signalled tightening only subsequently to reverse. But that resulting loss of credibility may in *GREED & fear*'s view make it harder to reverse yet again, though the continuing lack of consensus within the British Government on the Brexit negotiation strategy is clearly not positive for the real economy. But it is also the case that inflation in Britain is, unlike America, running above its 2% target. UK CPI inflation rose from 2.6% YoY in July to 2.9% YoY in August (see Figure 9). Meanwhile, there is again a lot of potential to tighten given that the Bank of England's balance sheet is £550bn and short-term interest rates are only 0.25%.

Prepared for - W: olivier.parriaud@ca-indosuez.sg

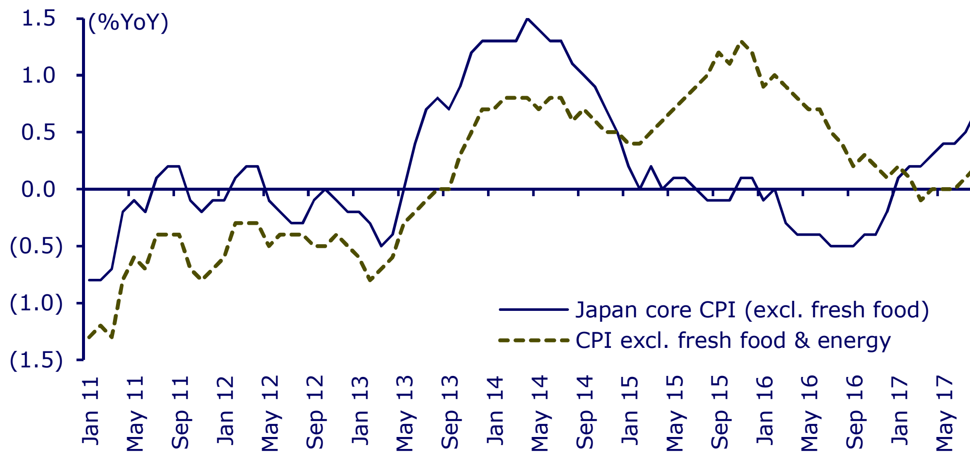
Christopher Wood christopher.wood@clsa.com +852 2600 8516

Figure 9
UK CPI inflation and BoE Bank rate



Source: Bank of England, Office for National Statistics

Figure 10
Japan core CPI inflation



Note: Adjusted for the sales tax hike effect. Source: Statistics Bureau, Bank of Japan, CLSA

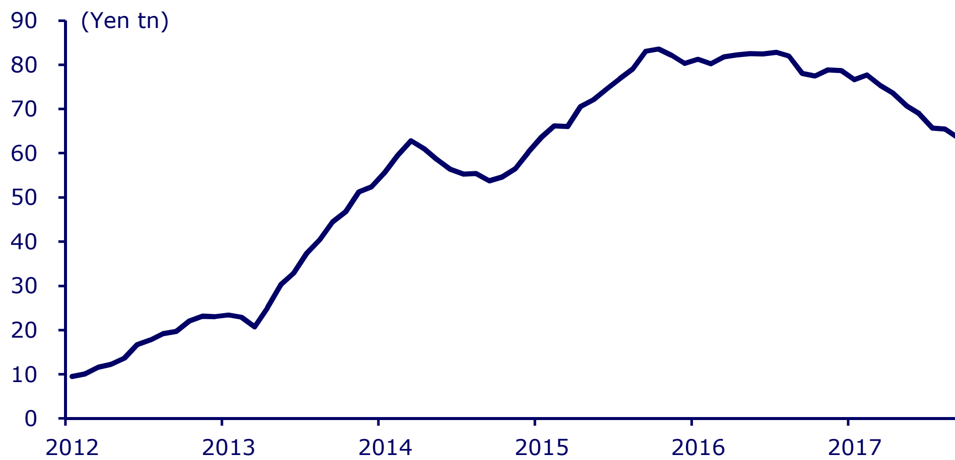
Then there is Japan. With inflation still running well below the BoJ's official 2% target (see Figure 10), this is the major G7 central bank that has so far resisted all talk of normalisation. True, some in the markets have speculated that the Japanese central bank has commenced tapering this year because it has bought fewer JGBs than the annual net purchase target of ¥80tn. BoJ's annualised net purchases of JGBs have declined from ¥82.8tn in July 2016 to ¥63.4tn in September 2017 (see Figure 11). But in *GREED & fear*'s view this remains primarily because, with the flattening of the US yield curve this year, there has been less need to buy so many JGBs to adhere to the so-called "yield curve control" policy of fixing the 10-year JGB yield at "around 0%".

Meanwhile, the challenge of normalising monetary policy is most extreme for the BoJ given that its balance sheet already totals ¥513tn, equivalent to 95% of GDP, and given that it already owns 41% of the entire JGB market (see Figure 12). In this respect, Japan is the most extreme example of the inevitable blurring of the distinction between monetary policy and fiscal policy which is the logical consequence of so many years of quantitative easing.

Prepared for - W: olivier.parriaud@ca-indosuez.sg

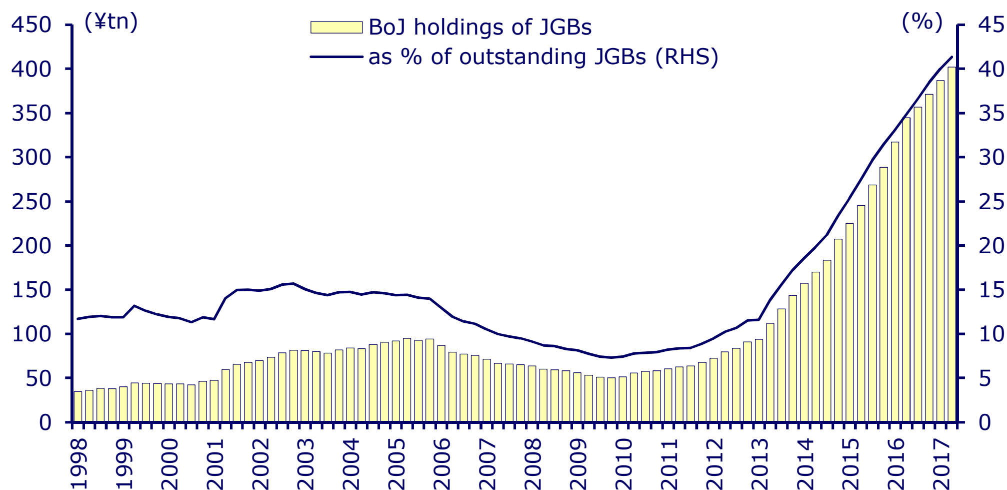
Christopher Wood christopher.wood@clsa.com +852 2600 8516

Figure 11
Bank of Japan annualised net purchases of JGBs



Source: Bank of Japan

Figure 12
Bank of Japan holdings of JGBs as % of outstanding JGBs



Source: Bank of Japan – Flow of Funds Accounts

All of the above raises the issue of how difficult it will be to normalise monetary policy in practice, and what will be the consequences of such policies for investors assuming that the central banks' commitment to balance sheet reduction is maintained. For a better insight into this, it is instructive to look at the history. In this respect, an interesting study on the history of central bank balance sheets was published in 2014 (see paper prepared for the ECB Forum on Central Banking - "*Central bank balance sheets: expansion and reduction since 1900*", May 2014, by Niall Ferguson, Andreas Schaab and Moritz Schularick).

The first point made in this study is that the only precedent for the scale of the central bank balance sheet expansion of the past nearly 10 years was during World War II, with government debt and government guaranteed assets currently accounting today for at least as large a share of central bank balance sheets as during World War II. Clearly, the purpose of such balance sheet expansion in the 1940s was to assist the fiscal authorities in financing a war. The ostensible purpose since 2008 has been to stabilise "aggregate demand" in the neo-Keynesian sense of that term. So far as *GREED & fear* is concerned, the aim, in reality, has been to stop debt liquidation and thereby prevent the creditor classes from losing money.

Prepared for - W: olivier.parriaud@ca-indosuez.sg

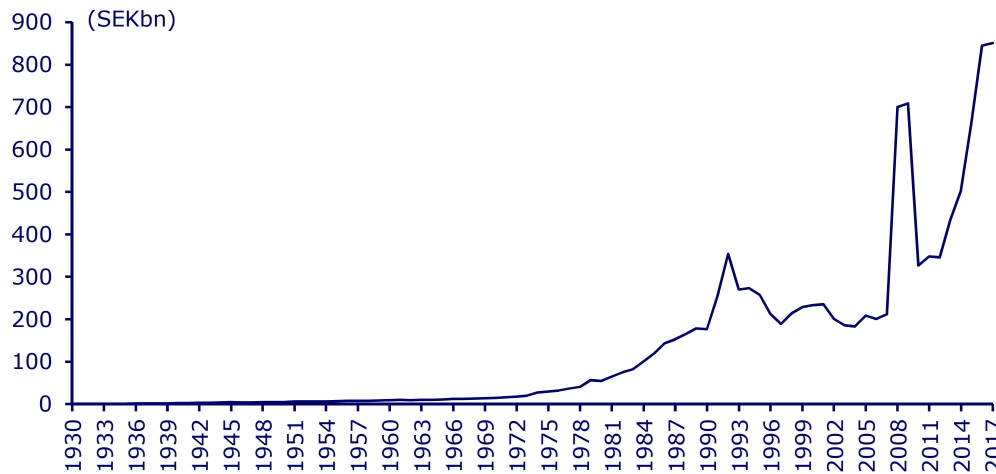
Christopher Wood christopher.wood@clsa.com +852 2600 8516

The second point made in this study is that the balance sheet reduction after World War II was achieved primarily by central bank balance sheets declining relative to GDP without central banks actually having to shrink their assets in nominal terms. This was made possible primarily by the strong economic growth recorded after World War II. For the record, US real GDP rose by an annualised 6.4% between 1949 and 1953, while Japan's real GDP increased by an annualised 9.7% between 1955 and 1970.

The situation is completely different today where aggregate debt levels in the developed world are much higher and where ageing demographics are much less conducive to robust growth. Real GDP growth has averaged only 2.2% in America since 2009, 1.2% in the Eurozone and 1.4% in Japan since 2009. Meanwhile, the ECB study only came up with two examples of significant nominal reductions in central bank balance sheets in the post-1945 period. The first was Sweden in the early 1990s following the so-called Nordic banking crisis. The second was the Bank of Japan's first attempt to unwind its asset purchase programme in the mid-2000s. Thus, the Swedish central bank's balance sheet declined by 47% between 1992 and 1997 (see Figure 13). While the Bank of Japan's total assets declined by 36% between December 2005 and June 2007 (see Figure 14).

Figure 13

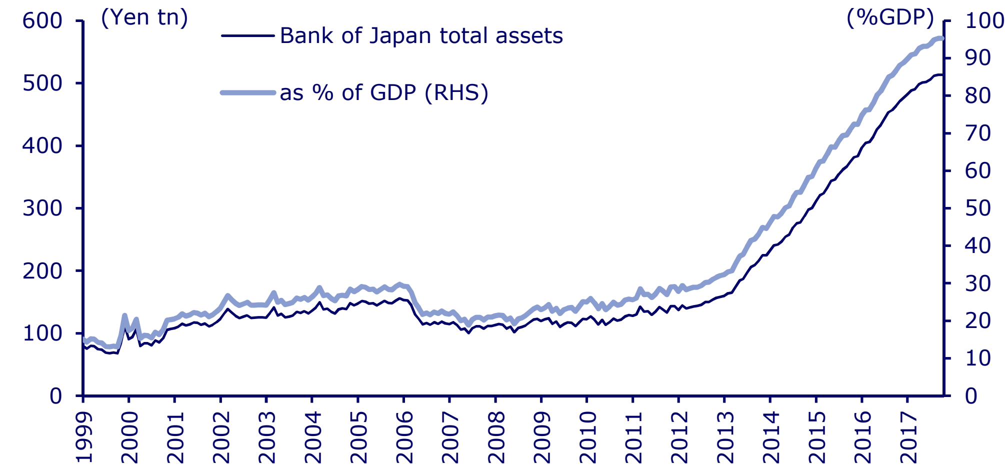
Swedish central bank's balance sheet



Source: Sveriges Riksbank

Figure 14

Bank of Japan total assets as % of GDP



Source: Bank of Japan, Cabinet Office

Prepared for - W: olivier.parriaud@ca-indosuez.sg

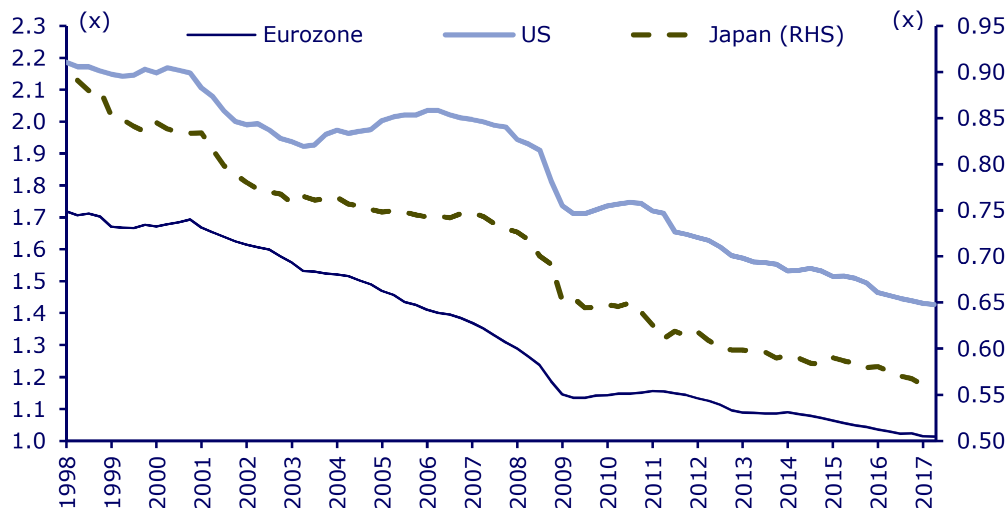
Christopher Wood christopher.wood@clsa.com +852 2600 8516

What about the impact on markets of such contraction policies? The report finds, unsurprisingly, that balance sheet reductions tend to be negative for equities and that historically "balance sheet reduction episodes have gone hand in hand with lower growth rates, somewhat lower inflation rates and substantial slowdowns in financial sector lending activity". This should not surprise since central bank balance sheet contraction, or quantitative tightening, is a form of monetary tightening. Meanwhile, the other valid issue raised by this historical study is the inevitable blurring of central bank independence, in relation to the fiscal authorities, when the central bank is so active buying government bonds. The authors write: "So long as the credibility of central banks as independent custodians of price stability remains intact, balance sheet expansions need not be inflationary, even if in nominal terms they become permanent. But history suggests that the threat to long-run price stability is a real if slow-acting one when fiscal deficits are persistent and central bank independence is compromised."

This raises, correctly, the critical issue of central bank credibility, an issue which *GREED & fear* has long been obsessed with. For in the current debt-driven deflationary backdrop, with aggregate debt levels having continued to rise since 2008, quantitative easing will only prove "inflationary" in the conventional sense if central bank credibility is lost and there is a resulting surge in velocity. So far that has not happened as velocity has continued to decline throughout the G7 world (see Figure 15), which is also why government bonds have not yet entered bear markets despite endless predictions to the contrary.

Figure 15

US, Japan and Eurozone money velocity (Nominal GDP/M2)



Source: CLSA, CEIC Data

Still, the risks raised by the Fed's renewed attempt to normalise is that either economic conditions or market conditions, or a combination of both, may force it to reverse; and with such a reversal there is a much greater risk of a resulting loss of central bank credibility. This is because markets may conclude that central banks will never be able to reverse. In such circumstances it is possible that there is an inflection point in velocity, most particularly if the value of government-guaranteed debt is called into question. This is why *GREED & fear* continues to recommend owning gold as the only practical way of hedging such a development.

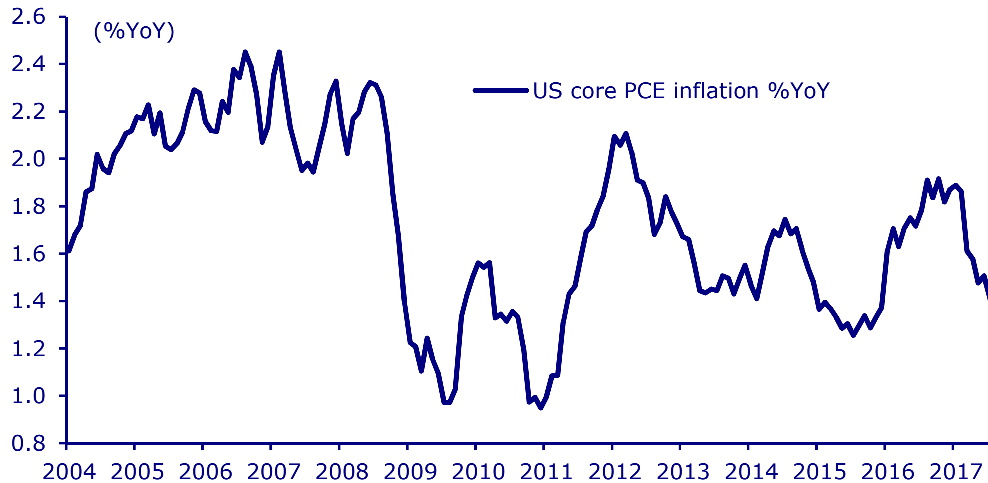
All of the above is why the Fed's attempt to normalise raises important issues. It is also the case at some point, with the ECB reducing its purchases also, that the rate of change at the margin becomes negative for stock markets in terms of liquidity expansion turning into liquidity contraction.

Prepared for - W: olivier.parriaud@ca-indosuez.sg

Christopher Wood christopher.wood@clsa.com +852 2600 8516

Still, this is to assume the Fed stays the course. However, the base case here for now is that the Fed will reverse course sooner rather than later. This is because it is still assumed for now that core PCE inflation in America has already peaked in this cycle at 1.9% YoY in January (see Figure 16). If this is indeed the case, then the Fed is likely to reconsider its outlook if inflation continues to come in below expectations during the first half of 2018, most particularly if the average hourly earnings growth slows down again.

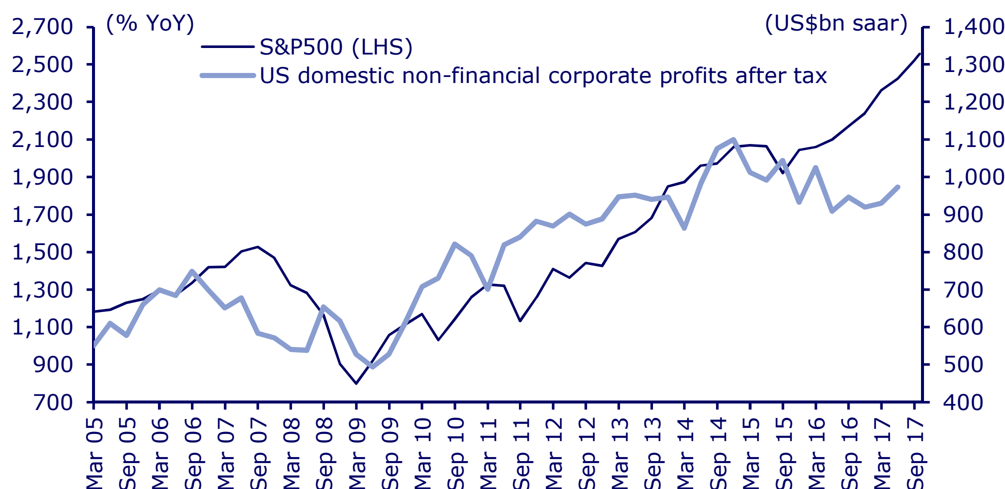
Figure 16
US core PCE inflation



Source: US Bureau of Economic Analysis

But in holding such a view, it is important to stress that *GREED & fear* is making a major assumption. This is that the Fed will maintain the "inflation targeting" mantra so beloved by modern central bankers. It is on this point where the issue of Fed succession becomes so critical. For if the Fed chairmanship is taken over by someone prioritising "normalisation" over "data dependency", and prioritising targeting inflated asset prices over core CPI or PCE inflation, then the immediate consequences for asset markets will be much more negative given that the S&P500 is trading on 24 times GAAP-adjusted earnings and given that the macro trend in corporate earnings in America in recent years is much less healthy than what is suggested by the performance of the American stock market. Thus, non-financial corporate profits after tax rose by 7% YoY in 2Q17 but were still 12% below the peak reached in 4Q14 (see Figure 17).

Figure 17
US domestic non-financial corporate profits after tax and S&P500



Source: Bureau of Economic Analysis, Datastream

Prepared for - W: olivier.parriaud@ca-indosuez.sg

Christopher Wood christopher.wood@clsa.com +852 2600 8516

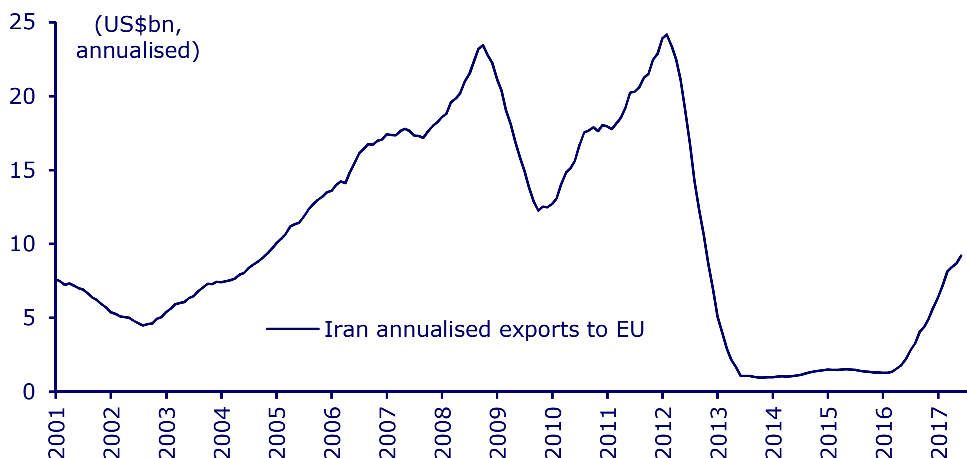
But for now the base case is that the Fed will remain in traditional "inflationary targeting" mode. Indeed it is not impossible that Chairwoman Yellen is reappointed. But for now it is not clear which of the four seeming candidates for Fed chairmanship, of whom Yellen is one, will be chosen. The other three candidates are apparently former Fed Governor Kevin Warsh, current Governor Jerome Powell and National Economic Council Director Gary Cohn.

In Iran for the first time in more years than *GREED & fear* cares to remember, the timing is in a sense opportune. The talk in Tehran this week is all about whether Donald Trump will refuse to certify Iran's compliance with the 2015 nuclear deal, known officially as the Joint Comprehensive Plan of Action or JCPOA. In fact, *GREED & fear* had never known this acronym until this week.

Officially, Congress requires the American president to certify Iranian compliance with the deal every 90 days with the next certification date falling on 15 October. Given The Donald's vocal criticism of the deal, most particularly since his visit to Saudi Arabia on 20-21 May, the American president is widely expected not to certify which could then lead to a declaration of Washington's withdrawal from the multilateral agreement. Congress would, so far as *GREED & fear* understands, then have 60 days to decide whether to reimpose sanctions lifted under the 2015 deal.

The significance of all of the above, to *GREED & fear,* is that it could put Europe and America on a collision course. The dynamic at work was summed up from a global geopolitical perspective by a statement from Germany's Foreign Minister Sigmar Gabriel highlighted in the *Tehran Times* on Tuesday when he was quoted as telling a press conference in Germany that, "If the United States of America takes that course then the world will change" (see *Tehran Times* article: "*Germany: 'World will change' if Trump ditches nuclear deal*", 10 October 2017). Given the European view that Iran is compliant, a Trump refusal to certify would likely trigger a formal parting of the ways between America and the Eurozone on this foreign policy issue.

Figure 18
Iran annualised exports to EU



Source: IMF – Direction of Trade Statistics, Datastream

If this is the geopolitical issue at stake, the importance of this for Iran can be seen in the fact that Iran's exports to Europe have surged sevenfold since the end of sanctions in January 2016. Thus, Iran's exports to EU have risen from US$1.3bn in 2015 to US$9.2bn in the 12 months to June, according to IMF Direction of Trade Statistics (see Figure 18). There is also of course growing trade between Iran and China, with mainlanders' presence in the hotel *GREED & fear* was staying also highly visible. Iran's total trade with China rose by 30% YoY to US$13bn in 1H17 (see Figure 19). It is also the case that with Iran's location on the Silk Road, it is an obvious target for One Belt One Road (OBOR) projects. All this makes Iran a good example of

Prepared for - W: olivier.parriaud@ca-indosuez.sg

Christopher Wood christopher.wood@clsa.com +852 2600 8516

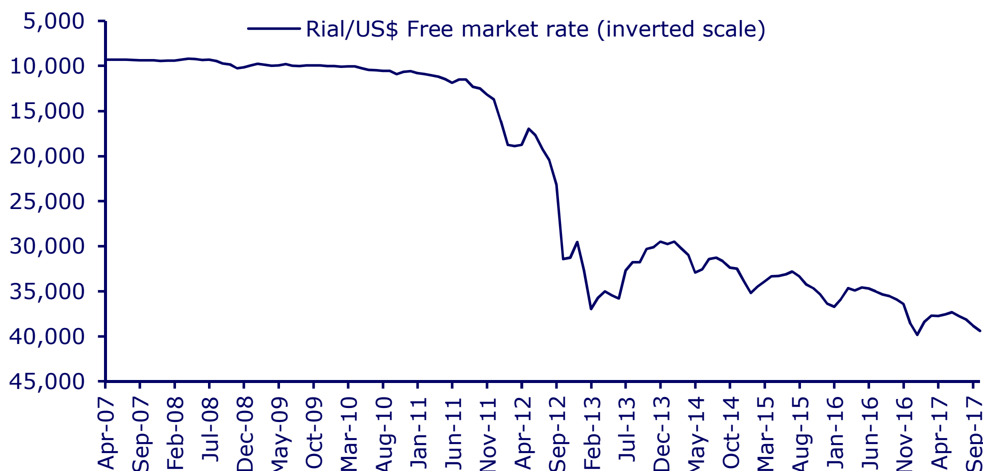
the increasingly multipolar world where American influence appears to be fading, a process which increasingly appears to be accelerated by The Donald, be it deliberately or inadvertently.

Figure 19
Iran annualised total trade with China

Source: IMF – Direction of Trade Statistics, Datastream

True, this *may* be deliberate given The Donald campaigned on a seemingly isolationist agenda. But *GREED & fear* is not so sure. Walking out of the Trans-Pacific Partnership (TPP) not only upset an important ally in Shinzo Abe, who has been too polite to complain about it in public, but also created effectively an open door for China to walk into in Asia. Then the latest Trump stance on Iran threatens to trigger the previously unthinkable. That is to precipitate an assertive European foreign policy led by a re-invigorated Franco-German alliance. Certainly, the much diminished status of Britain, as a result of both the Brexit vote and the country's currently extremely dysfunctional government, makes it harder for London to play its normal role acting as the promoter of Washington's cause in the European context.

Figure 20
Iranian Rial/US$ (free market rate, inverted scale)



Source: Ministry of Economic Affairs and Finance

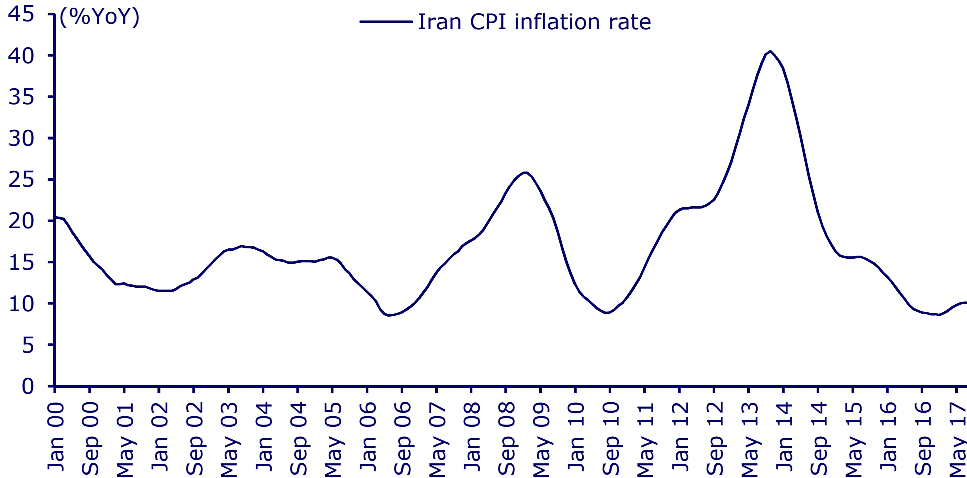
Turning away from geographical issues, *GREED & fear* will not enter into a detailed discussion of Iran's economy and financial markets save to say that the country springs some positive surprises. It has an open capital account, save for a dual exchange rate system necessitated by the sanction regime, while there is no tax on capital gains or dividends. The Tehran Stock Exchange celebrates its 50th anniversary this year while the currency has traded in a 13% range for the past two years (see Figure 20), helped by very high interest rates. Treasury bill

Prepared for - W: olivier.parriaud@ca-indosuez.sg

Christopher Wood christopher.wood@clsa.com +852 2600 8516

yields are currently 16-17%, down from a peak last year of 27%, while inflation is now running in the 8-10% range (see Figure 21).

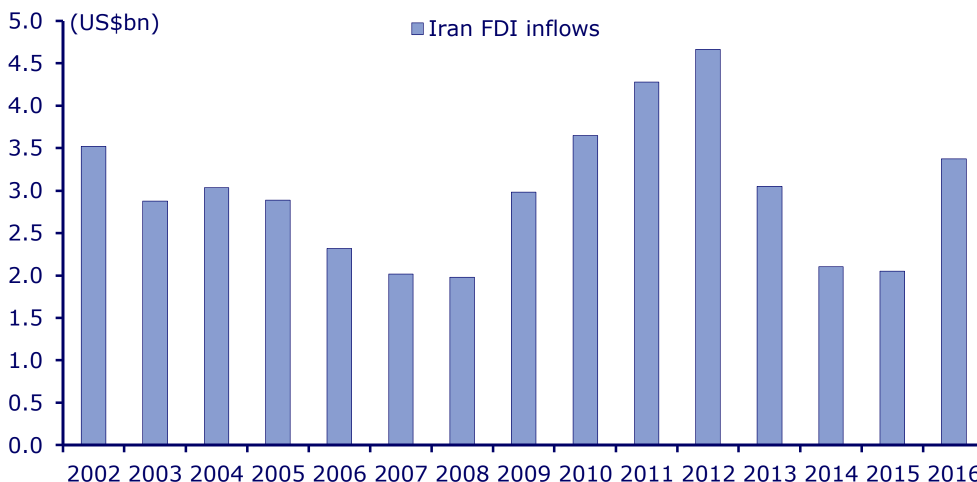
Figure 21
Iran CPI inflation rate



Source: Central Bank of Iran

With a classic bullish emerging market demographic profile, in terms of a population of 80m, 60% of whom are under the age of 35, Iran is also attracting a lot of foreign direct investment, even from America. The biggest deal of late was French oil giant Total's US$4.8bn investment signed in July to develop Iran's giant South Pars gas field. This is another indication of Europe's willingness to do business. In terms of the aggregate data, Iran's actual FDI inflows surged by 64% YoY to US$3.37bn in 2016, according to United Nations data (see Figure 22). While a government report published earlier this year shows that Iran has approved US$11.8bn in foreign direct investment during the 12 months to December 2016, with Spain and Germany accounting for US$3.2bn and US$2.9bn of that total, respectively.

Figure 22
Iran FDI inflows



Source: United Nations Conference on Trade and Development (UNCTAD) – World Investment Report 2017

The foreign portfolio activity is much more limited, with *GREED & fear* hearing estimates of only US$100m invested in aggregate. This is the consequence in terms of equities of both a lack of MSCI inclusion and, of course, of sanctions. There is still no foreign bank in Iran and therefore a lack of familiar custodians acceptable to international portfolio investors. Indeed, despite the 2015 nuclear deal, it is still not possible to use foreign credit cards to pay for hotel bills or any other transaction. Foreign credit rating agencies are also absent which may not surprise given

Prepared for - W: olivier.parriaud@ca-indosuez.sg

Christopher Wood christopher.wood@clsa.com +852 2600 8516

the three biggest are owned by the Americans. This is a pity for the Iranian Government given that, with effectively no foreign currency debt and total government debt to GDP of only 35% of GDP, it would make a lot of sense to do a landmark sovereign debt issue. Total external debt is now only US$9bn or just 2% of GDP, according to the Central Bank of Iran.

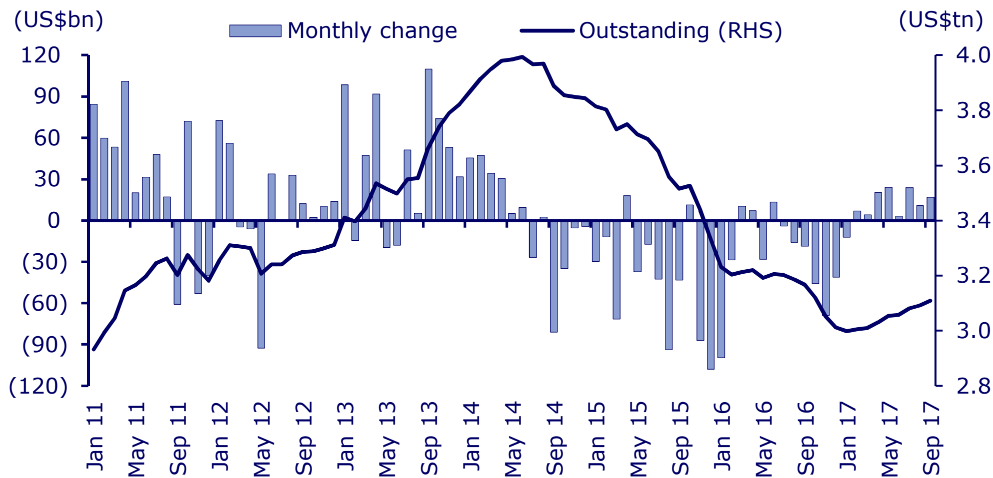
Still if Iran is not yet "investable" in a conventional sense, it certainly makes sense for pioneering types to start to look under the bonnet, most particularly as the stock market is apparently trading on only seven times earnings. Meanwhile, *GREED & fear* agrees with the German foreign minister that the looming confrontation between America and the Eurozone on this issue is potentially a landmark development in the retreat from *Pax Americana*. And the more the world retreats from *Pax Americana*, the more appropriate it becomes again to question the durability of the US dollar paper standard.

Returning to Asia, China's foreign exchange reserves increased by US$17bn in September to US$3.1085tn, compared with a US$10.8bn increase in August. This the first time China forex reserves have increased for eight straight months since June 2014.

Since bottoming at US$2.998tn in January, China forex reserves have risen by US$110bn or 3.7%, though still US$885bn below the peak level of US$3.993tn reached at the end of June 2014 (see Figure 23). CLSA's economics team's reserve valuation model also suggests that the implied balance of payment surplus was US$38.3bn in September, the biggest since March 2014 (see Figure 24 and CLSA research *Infofax Daily – China forex reserves: Steady increase*, 10 October 2017). As a result, CLSA's economics team expects China to record a second straight quarter of a balance of payment surplus in 3Q17. This follows the officially reported US$32bn surplus seen in 2Q17 which was the first quarter of surplus since 2Q15.

Figure 23

China foreign exchange reserves



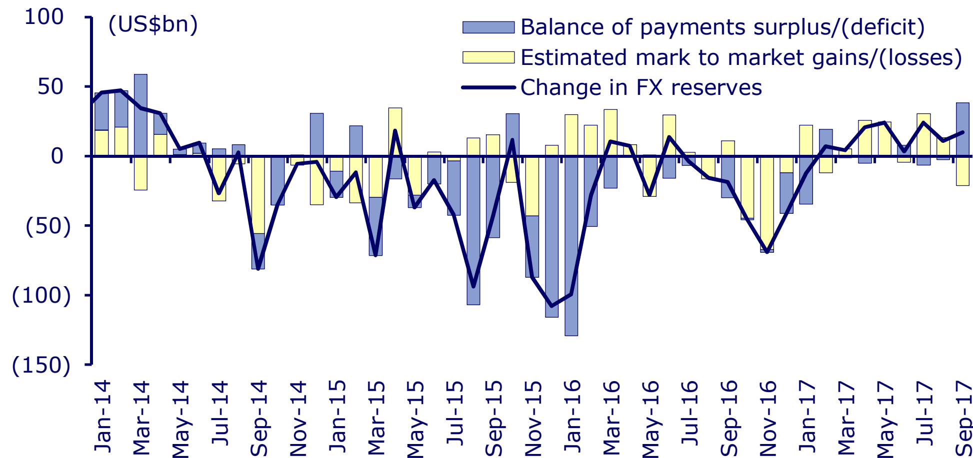
Source: CLSA, PBOC

Prepared for - W: olivier.parriaud@ca-indosuez.sg

Christopher Wood christopher.wood@clsa.com +852 2600 8516

Figure 24

Change in China forex reserves and estimated balance of payments

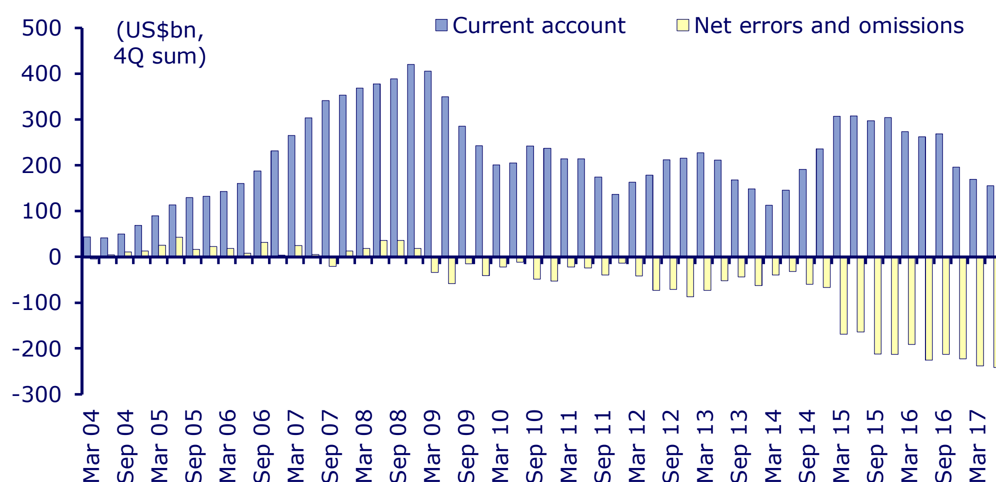


Note: Based on CLSA's economics team's reserve valuation model. Source: Bloomberg, PBOC, CLSA

If the above is positive, it is also important to note, as regards China's official quarterly balance of payments data, that the net errors and omissions account of the balance of payments still shows continuing capital outflow pressures. Thus, net errors and omissions were a deficit of US$242bn in the 12 months to June, or 56% more the current account surplus of US$155bn over the same period (see Figure 25). This suggests continuing capital outflow pressures. But more encouragingly, as regards the 2Q17 alone, net errors and omissions were a deficit of US$50.4bn, almost equivalent to the current account surplus of US$50.9bn.

Figure 25

China BOP: Annualised current account and net errors and omissions



Note: Data up to 2Q17. Source: State Administration of Foreign Exchange (SAFE)

Finally, one change will be made in the Asia Pacific ex-Japan relative-return portfolio. The weighting in Thailand will be increased by one percentage point to an Overweight by shaving the much larger Overweight in India (see Figure 26).

Prepared for - W: olivier.parriaud@ca-indosuez.sg

Christopher Wood christopher.wood@clsa.com +852 2600 8516

Figure 26

CLSA Asia Pacific ex-Japan asset allocation

	MSCI AC Asia Pacific ex-Japan weightings 11-Oct-17	CLSA recommended weightings 12-Oct-17	Mismatch from benchmark
Australia	18.1%	6.0%	-12.1%
China	28.3%	31.0%	2.7%
Hong Kong	9.2%	8.0%	-1.2%
India	7.9%	22.0%	14.1%
Indonesia	2.1%	2.0%	-0.1%
Korea	14.3%	14.0%	-0.3%
Malaysia	2.1%	2.0%	-0.1%
New Zealand	0.4%	0.0%	-0.4%
Pakistan	0.1%	0.0%	-0.1%
Philippines	1.0%	2.0%	1.0%
Singapore	3.4%	2.0%	-1.4%
Taiwan	11.0%	8.0%	-3.0%
Thailand	2.1%	3.0%	0.9%
Total	100.0%	100.0%	--

Source: CLSA, MSCI

Prepared for - W: olivier.parriaud@ca-indosuez.sg

Christopher Wood christopher.wood@clsa.com +852 2600 8516

Research subscriptions
To change your report distribution requirements, please contact your CLSA sales representative or email us at cib@clsa.com. You can also fine-tune your Research Alert email preferences at https://www.clsa.com/member/tools/email_alert/.

Companies mentioned

Total (N-R)

The above shows our fundamental ratings on these stocks.

Analyst certification

The analyst(s) of this report hereby certify that the views expressed in this research report accurately reflect my/our own personal views about the securities and/or the issuers and that no part of my/our compensation was, is, or will be directly or indirectly related to the specific recommendation or views contained in this research report.

Important disclosures

The policy of CLSA (which for the purpose of this disclosure includes its subsidiary CLSA B.V.) and CL Securities Taiwan Co., Ltd. ("CLST") is to only publish research that is impartial, independent, clear, fair, and not misleading. Analysts may not receive compensation from the companies they cover. Regulations or market practice of some jurisdictions/markets prescribe certain disclosures to be made for certain actual, potential or perceived conflicts of interests relating to a research report as below. This research disclosure should be read in conjunction with the research disclaimer as set out at www.clsa.com/disclaimer.html and the applicable regulation of the concerned market where the analyst is stationed and hence subject to. This research disclosure is for your information only and does not constitute any recommendation, representation or warranty. Absence of a discloseable position should not be taken as endorsement on the validity or quality of the research report or recommendation.

To maintain the independence and integrity of CLSA's research, our Corporate Finance, Sales Trading and Research business lines are distinct from one another. This means that CLSA's Research department is not part of and does not report to CLSA Corporate Finance (or "investment banking") department or CLSA's Sales and Trading business. Accordingly, neither the Corporate Finance nor the Sales and Trading department supervises or controls the activities of CLSA's research analysts. CLSA's research analysts report to the management of the Research department, who in turn report to CLSA's senior management.

CLSA has put in place a number of internal controls designed to manage conflicts of interest that may arise as a result of CLSA engaging in Corporate Finance, Sales and Trading and Research activities. Some examples of these controls include: the use of information barriers and other information controls designed to ensure that confidential information is only shared on a "need to know" basis and in compliance with CLSA's Chinese Wall policies and procedures; measures designed to ensure that interactions that may occur among CLSA's Research personnel, Corporate Finance and Sales and Trading personnel, CLSA's financial product issuers and CLSA's research analysts do not compromise the integrity and independence of CLSA's research.

Neither analysts nor their household members/associates/may have a financial interest in, or be an officer, director or advisory board member of companies covered by the analyst unless disclosed herein. In circumstances where an analyst has a pre-existing holding in any securities under coverage, those holdings are grandfathered and the analyst is prohibited from trading such securities.

Unless specified otherwise, CLSA/CLST did not receive investment banking/non-investment banking income from, and did not manage/co-manage a public offering for, the listed company during the past 12 months, and it does not expect to receive investment banking compensation from

Prepared for - W: olivier.parriaud@ca-indosuez.sg

Christopher Wood christopher.wood@clsa.com +852 2600 8516

the listed company within the coming three months. Unless mentioned otherwise, CLSA/CLST does not own a material discloseable position, and does not make a market, in the securities.

As analyst(s) of this report, I/we hereby certify that the views expressed in this research report accurately reflect my/our own personal views about the securities and/or the issuers and that no part of my/our compensation was, is, or will be directly or indirectly related to the specific recommendation or views contained in this report or to any investment banking relationship with the subject company covered in this report (for the past one year) or otherwise any other relationship with such company which leads to receipt of fees from the company except in ordinary course of business of the company. The analyst/s also state/s and confirm/s that he/she/they has/have not been placed under any undue influence, intervention or pressure by any person/s in compiling this research report. In addition, the analysts included herein attest that they were not in possession of any material, nonpublic information regarding the subject company at the time of publication of the report. Save from the disclosure below (if any), the analyst(s) is/are not aware of any material conflict of interest.

Key to CLSA/CLST investment rankings: BUY: Total stock return (including dividends) expected to exceed 20%; O-PF: Total expected return below 20% but exceeding market return; U-PF: Total expected return positive but below market return; SELL: Total return expected to be negative. For relative performance, we benchmark the 12-month total forecast return (including dividends) for the stock against the 12-month forecast return (including dividends) for the market on which the stock trades.

We define as "Double Baggers" stocks we expect to yield 100% or more (including dividends) within three years at the time the stocks are introduced to our "Double Bagger" list. "High Conviction" Ideas are not necessarily stocks with the most upside/downside, but those where the Research Head/Strategist believes there is the highest likelihood of positive/negative returns. The list for each market is monitored weekly.

Overall rating distribution for CLSA/CLST only Universe:

Overall rating distribution: BUY / Outperform - CLSA: 64.86%; CLST only: 59.09%, Underperform / SELL - CLSA: 35.14%; CLST only: 40.91%, Restricted - CLSA: 0.00%; CLST only: 0.00%. Data as of 30 September 2017.

Investment banking clients as a % of rating category: BUY / Outperform - CLSA: 4.31%; CLST only: 0.00%, Underperform / SELL - CLSA: 3.33%; CLST only: 0.00%, Restricted - CLSA: 0.00%; CLST only: 0.00%. Data for 12-month period ending 30 September 2017.

There are no numbers for Hold/Neutral as CLSA/CLST do not have such investment rankings.

For a history of the recommendations and price targets for companies mentioned in this report, as well as company specific disclosures, please write to: (a) CLSA, Group Compliance, 18/F, One Pacific Place, 88 Queensway, Hong Kong and/or; (b) CLST Compliance (27/F, 95, Section 2 Dun Hua South Road, Taipei 10682, Taiwan, telephone (886) 2 2326 8188). © 2017 CLSA Limited and/or CLST.

© 2017 CLSA Limited, and/or CL Securities Taiwan Co., Ltd. ("CLST")

This publication/communication is subject to and incorporates the terms and conditions of use set out on the www.clsa.com website (www.clsa.com/disclaimer.html.). Neither the publication/communication nor any portion hereof may be reprinted, sold, resold, copied, reproduced, distributed, redistributed, published, republished, displayed, posted or transmitted in any form or media or by any means without the written consent of CLSA group of companies ("CLSA") and/or CLST.

CLSA and/or CLST have produced this publication/communication for private circulation to professional, institutional and/or wholesale clients only. This publication/communication may not be distributed or redistributed to retail investors. The information, opinions and estimates herein are not directed at, or intended for distribution to or use by, any person or entity in any jurisdiction where doing so would be contrary to law or regulation or which would subject CLSA and/or CLST to any additional registration or licensing requirement within such jurisdiction. The information and statistical data herein have been obtained from sources we believe to be reliable. Such information has not been independently verified and we make no representation or warranty as to its accuracy, completeness or correctness. Any opinions or estimates herein reflect the judgment of CLSA and/or CLST at the date of this publication/communication and are subject to change at any time without notice. Where any part of the information, opinions or

Prepared for - W: olivier.parriaud@ca-indosuez.sg

Christopher Wood christopher.wood@clsa.com +852 2600 8516

estimates contained herein reflects the views and opinions of a sales person or a non-analyst, such views and opinions may not correspond to the published view of CLSA and/or CLST. This is not a solicitation or any offer to buy or sell. This publication/communication is for information purposes only and does not constitute any recommendation, representation, warranty or guarantee of performance. Any price target given in the report may be projected from one or more valuation models and hence any price target may be subject to the inherent risk of the selected model as well as other external risk factors. This is not intended to provide professional, investment or any other type of advice or recommendation and does not take into account the particular investment objectives, financial situation or needs of individual recipients. Before acting on any information in this publication/communication, you should consider whether it is suitable for your particular circumstances and, if appropriate, seek professional advice, including tax advice. CLSA and/or CLST do/does not accept any responsibility and cannot be held liable for any person's use of or reliance on the information and opinions contained herein. To the extent permitted by applicable securities laws and regulations, CLSA and/or CLST accept(s) no liability whatsoever for any direct or consequential loss arising from the use of this publication/communication or its contents. Where the publication does not contain ratings, the material should not be construed as research but is offered as factual commentary. It is not intended to, nor should it be used to form an investment opinion about the non-rated companies.

Subject to any applicable laws and regulations at any given time, CLSA, CLST, their respective affiliates or companies or individuals connected with CLSA /CLST may have used the information contained herein before publication and may have positions in, may from time to time purchase or sell or have a material interest in any of the securities mentioned or related securities, or may currently or in future have or have had a business or financial relationship with, or may provide or have provided investment banking, capital markets and/or other services to, the entities referred to herein, their advisors and/or any other connected parties. As a result, investors should be aware that CLSA, CLST and/or their respective affiliates or companies or such individuals may have one or more conflicts of interest. Regulations or market practice of some jurisdictions/markets prescribe certain disclosures to be made for certain actual, potential or perceived conflicts of interests relating to research reports. Details of the discloseable interest can be found in certain reports as required by the relevant rules and regulation and the full details are available at http://www.clsa.com/member/research_disclosures/. Disclosures therein include the position of CLSA and CLST only. Unless specified otherwise, CLSA did not receive any compensation or other benefits from the subject company covered in this publication/communication, or from any third party in connection with this report. If investors have any difficulty accessing this website, please contact webadmin@clsa.com on +852 2600 8111. If you require disclosure information on previous dates, please contact compliance_hk@clsa.com.

This publication/communication is distributed for and on behalf of CLSA Limited (for research compiled by non-US and non-Taiwan analyst(s)), and/or CLST (for research compiled by Taiwan analyst(s)) in Australia by CLSA Australia Pty Ltd; in Hong Kong by CLSA Limited; in India by CLSA India Private Limited, (Address: 8/F, Dalamal House, Nariman Point, Mumbai 400021. Tel No: +91-22-66505050. Fax No: +91-22-22840271; CIN: U67120MH1994PLC083118; SEBI Registration No: INZ000001735; in Indonesia by PT CLSA Sekuritas Indonesia; in Japan by CLSA Securities Japan Co., Ltd; in Korea by CLSA Securities Korea Ltd; in Malaysia by CLSA Securities Malaysia Sdn Bhd; in the Philippines by CLSA Philippines Inc (a member of Philippine Stock Exchange and Securities Investors Protection Fund); in Thailand by CLSA Securities (Thailand) Limited; in Taiwan by CLST and in the United Kingdom by CLSA (UK).

India: CLSA India Private Limited, incorporated in November 1994 provides equity brokerage services (SEBI Registration No: INZ000001735), research services (SEBI Registration No: INH000001113) and merchant banking services (SEBI Registration No.INM000010619) to global institutional investors, pension funds and corporates. CLSA and its associates may have debt holdings in the subject company. Further, CLSA and its associates, in the past 12 months, may have received compensation for non-investment banking securities and/or non-securities related services from the subject company. For further details of "associates" of CLSA India please contact Compliance-India@clsa.com.

United States of America: Where any section is compiled by non-US analyst(s), it is distributed

Prepared for - W: olivier.parriaud@ca-indosuez.sg

into the United States by CLSA solely to persons who qualify as "Major US Institutional Investors" as defined in Rule 15a-6 under the Securities and Exchange Act of 1934 and who deal with CLSA Americas. However, the delivery of this research report to any person in the United States shall not be deemed a recommendation to effect any transactions in the securities discussed herein or an endorsement of any opinion expressed herein. Any recipient of this research in the United States wishing to effect a transaction in any security mentioned herein should do so by contacting CLSA Americas.

Canada: The delivery of this research report to any person in Canada shall not be deemed a recommendation to effect any transactions in the securities discussed herein or an endorsement of any opinion expressed herein. Any recipient of this research in Canada wishing to effect a transaction in any security mentioned herein should do so by contacting CLSA Americas.

United Kingdom: In the United Kingdom, this research is a marketing communication. It has not been prepared in accordance with the legal requirements designed to promote the independence of investment research, and is not subject to any prohibition on dealing ahead of the dissemination of investment research. The research is disseminated in the EU by CLSA (UK), which is authorised and regulated by the Financial Conduct Authority. This document is directed at persons having professional experience in matters relating to investments as defined in Article 19 of the FSMA 2000 (Financial Promotion) Order 2005. Any investment activity to which it relates is only available to such persons. If you do not have professional experience in matters relating to investments you should not rely on this document. Where the research material is compiled by the UK analyst(s), it is produced and disseminated by CLSA (UK). For the purposes of the Financial Conduct Rules this research is prepared and intended as substantive research material.

Singapore: In Singapore, research is issued and/or distributed by CLSA Singapore Pte Ltd (Company Registration No.: 198703750W), a Capital Markets Services licence holder to deal in securities and an exempt financial adviser, solely to persons who qualify as an institutional investor, accredited investor or expert investor, as defined in s.4A(1) of the Securities and Futures Act. Pursuant to Paragraphs 33, 34, 35 and 36 of the Financial Advisers (Amendment) Regulations 2005 of the Financial Advisers Act (Cap 110) with regards to an institutional investor, accredited investor, expert investor or Overseas Investor, sections 25, 27 and 36 of the Financial Adviser Act (Cap 110) shall not apply to CLSA Singapore Pte Ltd. Please contact CLSA Singapore Pte Ltd (telephone No.: +65 6416 7888) in connection with queries on the report. MCI (P) 033/11/2016

The analysts/contributors to this publication/communication may be employed by any relevant CLSA entity, CLST or a subsidiary of CITIC Securities Company Limited which is different from the entity that distributes the publication/communication in the respective jurisdictions.

MSCI-sourced information is the exclusive property of Morgan Stanley Capital International Inc (MSCI). Without prior written permission of MSCI, this information and any other MSCI intellectual property may not be reproduced, redisseminated or used to create any financial products, including any indices. This information is provided on an "as is" basis. The user assumes the entire risk of any use made of this information. MSCI, its affiliates and any third party involved in, or related to, computing or compiling the information hereby expressly disclaim all warranties of originality, accuracy, completeness, merchantability or fitness for a particular purpose with respect to any of this information. Without limiting any of the foregoing, in no event shall MSCI, any of its affiliates or any third party involved in, or related to, computing or compiling the information have any liability for any damages of any kind. MSCI, Morgan Stanley Capital International and the MSCI indexes are service marks of MSCI and its affiliates. The Global Industry Classification Standard (GICS) was developed by and is the exclusive property of MSCI and Standard & Poor's. GICS is a service mark of MSCI and S&P and has been licensed for use by CLSA.

EVA® is a registered trademark of Stern, Stewart & Co. "CL" in charts and tables stands for CLSA and “CT” stands for CLST estimates unless otherwise noted in the source.

Prepared for - W: olivier.parriaud@ca-indosuez.sg