



19 October 2010

## The Asia Investor Letter

# QE2 - A Pyrrhic Victory for Animal Spirits?

In discussing the merits of further unconventional monetary intervention, a former Dallas Fed President recently offered the following policy prescription, "If you lead the horse to water and it won't drink, just keep adding water - and maybe even spike it". As this is becoming a significant issue, notably in EM, we offer below some macro investment implications. Our takeaway is far from the constructive one we held on Asian risk post-May.

First, with real interest rates and financial market volatility approaching record lows in some cases, arguing for an increase in risk-taking at this juncture seems to us disingenuous – in the same spirit that in early-2007, VAR risk models argued for maximum leverage and risk exposure as volatility and certain interest rates made new lows. Second, recoveries from severe balance sheet recessions are distinguished by a lack of sensitivity of credit demand to both lower interest rates and an easing in credit conditions. While this point was made in the case of Japan in Richard Koo's treatise, *The Holy Grail of Macroeconomics*, recent developments in the US are also a nod in this direction. For instance despite generational lows in Treasury yields and mortgage rates, the demand for new purchase mortgage applications is running 30% below the anemic pace of 2009, home prices have renewed their descent in recent months, and financial stocks are badly lagging the broader stock market. Indeed, the Chicago Fed President recently remarked, "I believe the US economy is best described to be in a bona fide liquidity trap". Note our economics team estimate QE2 to likely reduce the unemployment rate by just 0.7%pts and raise the level of GDP by 0.7% over the next two years. The \$1tn of reserves on bank balance sheets and record levels of cash holdings by corporates suggest liquidity is not a binding constraint. Third, we do not see QE2 as having the fire-power to address the issues restraining long-term employment and productivity growth which drive the IRR of the economy (and by implication, equilibrium risk-asset returns, esp stocks). Both the Philadelphia Fed President and the St. Louis Fed have also recently noted the limitations of monetary policy in addressing structural unemployment. Moreover simple arithmetic dictates long-term real US stock returns to be ~4% (DY + real trend GDP), with or without QE2. The supply-side measures that do have the ability to increase underlying productivity growth and equilibrium risk asset returns, such as an infrastructure build-out or support for R&D, appear off the table at this point in the political cycle. In short, *policy aiming to temporarily drive risk-asset prices away from the underlying cash-flow-generating ability of the economy strikes us as highly risky, and most likely to end as a Pyrrhic victory*. Fourth, we suggest the perceived benefits of a lower \$US are overstated, as much of the asset-based benefits of QE2 are being felt outside the US via capital flows to EM – where a self-reinforcing cycle of 'panic buying' seems to be under way - and in any case, higher oil prices linked to a weak \$US act as a tax on consumption and impairs improvement in the US trade balance.

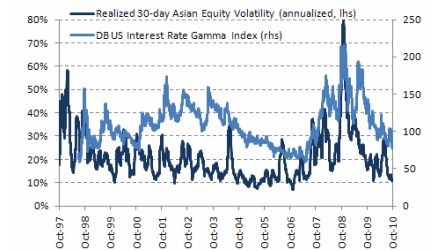
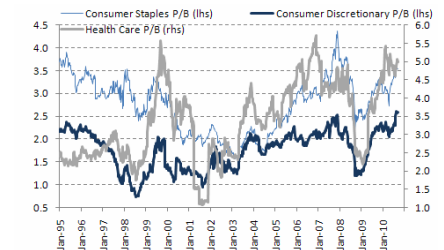
With this in mind, for investors in Asia we discuss some cross-asset trades with a view to positioning for asymmetric payoffs across a host of scenarios. These include straddles on Asian stocks, foreign large cap exposure via dividend futures in Europe, forward-starting RMB NDFs and intra-Asian carry trades in FX, and receivers in Australian and Korean swaps.

**Brad Jones, Ph.D**

Strategist  
(+852) 22038170  
brad.jones@db.com

Deutsche Bank AG/Hong Kong

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**Vol has collapsed across asset classes**

**Asian consumer stocks-record multiples**

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# QE2 – A Pyrrhic Victory for Animal Spirits?<sup>1</sup>

*"I believe the U.S. economy is best described as being in a bona fide liquidity trap ... this belief is not a new development for me; instead it is a dawning realization".*

- Charles Evans, President, Federal Reserve Bank of Chicago, 16 October 2010

*"Monetary policy is not designed to fine tune employment nor can it solve the sorts of geographic, sectoral, or skill mismatches [in the job market]. The Fed has already reduced the federal funds rate to near zero and provided \$1.7 trillion in added liquidity by buying mortgage backed securities and agency debt. And recall that while we were dropping the federal funds rate by 5 percentage points to near zero, monetary policy was unable to stop the rise in the unemployment rate from 5 to 10 percent. This suggests that very precise management of unemployment rates over the short-term is simply not something for which monetary policy is particularly well suited .... Thus, it is difficult, in my view, to see how additional asset purchases by the Fed, even if they move interest rates on long-term bonds down by 10 or 20 basis points, will have much impact on the near-term outlook for employment. Sending a signal that monetary policymakers are taking actions in an attempt to directly affect the near-term path of the unemployment rate, and then for those actions to have no demonstrable effects, would hurt the Fed's credibility and possibly erode the effectiveness of our future actions to ensure price stability. It also risks leading the public to believe that the Fed is seeking to monetize the deficit and make it more difficult to return to normal policy when the time comes".*

- Charles Plosser, President, Philadelphia Federal Reserve Bank, 29 September 2010

## Introduction

After the sharp sell-off in May of this year, we felt the shift out of EM risk asset positions and the return of value had been sufficient to justify a renewed interest in EM stocks and currencies, particularly in Asia (see "The Return of Risk Premia to EM", May/June 2010). However as we outlined in our last note ("Asian Equity Volatility – the World's Cheapest Buy?", September 2010), more recently we have grown uncomfortable at the rapid erosion of risk premia across Asian markets, from equities to credit, and fixed income to housing (we listed a number of examples). Asian currencies have been the only asset class in which we have maintained a firmly constructive view all year, and even here, we now find our conviction wavering at the potential for an adverse 'negative skew' event in coming months.

## Is that a "Bazooka" in your pocket?

The catalyst for the marked erosion in risk premia across Asia has had little-to-nothing to do with regional events (generally speaking, growth is slowing in Asia, and both inflation and political tensions are rising), but rather reflects the prospect of another round of unconventional monetary stimulus in the form of Treasury purchases by the Federal Reserve. EM stocks have risen a significant 12% in the six weeks since Chairman Bernanke's Jackson Hole address in late August, where he outlined the case for additional QE, and these

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<sup>1</sup>Here we are referring to the temporarily successful, but what we believe will be an ultimately futile attempt by policy makers to generate a self-sustaining recovery through the implementation of unconventional monetary stimulus.

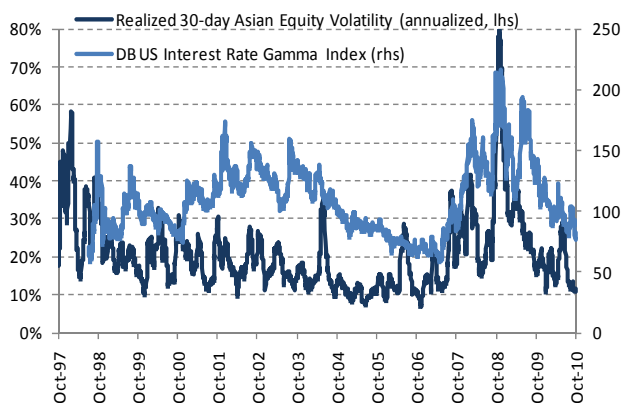
sentiments have been sufficient to overcome some otherwise ordinary data points as far as financial markets are concerned (notably employment and the manufacturing ISM which looks headed for a sub-50 reading by year-end). And last week, in a discussion of the merits of further unconventional monetary intervention, former Dallas Fed President (1991-2005) Robert D. McTeer Jnr. offered the following policy prescription,

*“If you lead the horse to water and it won’t drink, just keep adding water - and maybe even spike it”.*

As this issue is turning out to affect Emerging Markets in a highly unstable manner (evidenced in part by record capital inflows in the last quarter), we discuss below some of the economic and regional investment implications that follow. In short, our takeaway is considerable distance from the constructive view we held following the May sell-off.

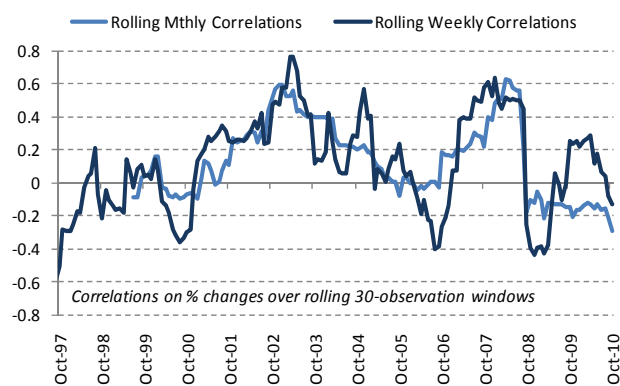
First, we would suggest that with real US interest rates and financial market volatility at or approaching record lows in some cases (Fig 1), arguing for an increase in risk-taking at this juncture seems to us disingenuous – in the same way that just prior to the onset of the crisis, VAR risk models argued for maximum leverage and risk exposure as both volatility and interest rates made new lows (at the point of maximum vulnerability to a shock to the status quo). Put another way, part of the reason that 1982 proved to be the starting point of a secular bull market in risk assets is because financial market volatility was so high and the earnings yield on stocks and spreads on IG credit were above 15%, paving the way for a substantial re-rating in risk assets as the government bond rally took hold in the Volker disinflation regime. From the current starting point however, there seems only one direction in which nominal and real interest rates, and volatility, can head over the medium term from their artificially depressed levels (in the absence of the Fed announcing a multi-year commitment to a ceiling or cap for yields as per the Fed-Treasury Accord around WW-II). Note that breakeven inflation rates have fully normalized and the level of rates has fallen by around the magnitude suggested by QE1<sup>2</sup>. Irrespective, the historical relationship between 10y real yields and US stocks has been sufficiently tenuous through the years to leave us skeptical that low real yields will automatically lead to a sustained re-rating in stocks (Fig 2).

**Figure 1: Volatility in US interest rates and Asian stocks is being compressed at artificially low levels**



Source: Deutsche Bank, Bloomberg Finance LP

**Figure 2: The historical correlation of changes in 10y real (TIPS) yields and S&P500 returns is spurious**



Source: Deutsche Bank, Bloomberg Finance LP

<sup>2</sup> A NY Fed study in March concluded that QE1 (comprising \$1.725 trillion in MBS, Agency and Government debt purchases) lowered the 10 year Treasury yield by 38-82 basis points. See, “Gagnon, Raskin, Remache and Sack, “Large-Scale Asset Purchases by the Federal Reserve: Did They Work?”, Staff Report No. 441. Our colleagues in US economics estimate \$1trillion of additional UST purchases in QE2 to be worth around 50bps on 10y yields.

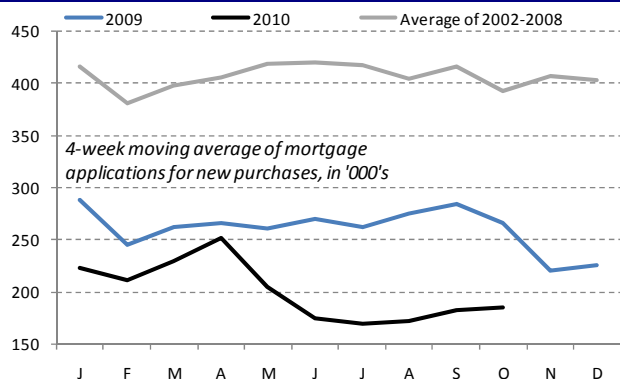
Second, recoveries from severe balance sheet recessions (as distinct from the garden variety<sup>3</sup>) are distinguished by a lack of sensitivity of credit demand to both lower interest rates and an easing in credit conditions. This point was colorfully and forcefully presented in the case of Japan’s balance sheet recession in Richard Koo’s seminal 2008 treatise, *The Holy Grail of Macroeconomics*,

*“Imagine a patient in the hospital who takes a drug prescribed by her doctor, but does not react as the doctor expected, and more importantly, does not get better. When she reports back to the doctor, he tells her to double the dosage. But this does not help either. So he orders her to take four times, eight times, and finally a hundred times the original dosage. All to no avail. Under these circumstances, any normal human being would come to the conclusion that the doctor’s original diagnosis was wrong, and that the patient suffered from a different disease. But today’s macroeconomics assumes private sector firms maximize profits at all times, meaning that given a low enough interest rate, they should be willing to borrow and invest. However, borrowers – not lenders as argued by academic economists – were the primary bottleneck in Japan’s Great Recession”.*

While there are numerous distinctions to be made between Japan’s experience and those today, recent developments in the US are also a nod in this direction. For instance despite generational lows in nominal and real Treasury yields and mortgage rates, the demand for new purchase mortgage applications is running 30% below last years’ anemic pace (Fig 3), home prices have renewed their fall in recent months, and financial stocks are badly lagging the broader stock market (this ratio is back to April 2009 lows, Fig 4). Note our economics team estimate the net impact of \$1 trillion of QE2 is to likely reduce the unemployment rate by just 0.7%pts over the next two years, and raise the level of GDP by just 0.7% over the same period. The \$1trillion of excess reserves on bank balance sheets and record levels of cash holdings by corporates suggests a lack of liquidity is not a binding constraint on recovery. Along similar lines, at the Boston Fed’s 55th Economic Conference on October 16, Chicago Fed President Charles L. Evans remarked,

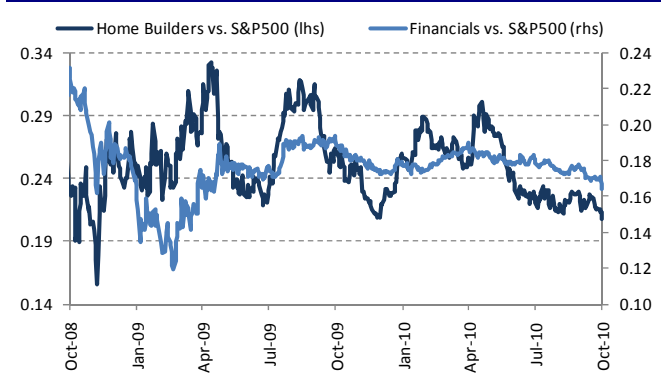
*“I believe the U.S. economy is best described as being in a bona fide liquidity trap ... this belief is not a new development for me; instead it is a dawning realization”.*

**Figure 3: New purchase mortgage applications are not responding to low rates or easing credit conditions**



Source: Deutsche Bank, Bloomberg Finance LP, MBA

**Figure 4: Ratio of S&P500 Financials vs. overall market is down 14% in 6mths, and now back to April '09 levels**



Source: Deutsche Bank, Bloomberg Finance LP

<sup>3</sup> By “garden variety” we mean “standard” or “par for the course”.

Third, we very much reside in the camp suggesting QE2 simply does not have the fire-power to address the issues restraining long-term employment and productivity growth which at the end of the day, drive the core underlying IRR of the economy (and by implication, equilibrium risk-asset returns, especially stocks). In other words, easing monetary conditions may be necessary, but it is by no means a sufficient response to addressing structural imbalances. In this respect we think it worthwhile highlighting a recent (and perhaps controversial) speech by Philly Fed President Charles I. Plosser on the impotence of monetary policy at this stage:<sup>4</sup>

*“Monetary policy is not designed to fine tune employment nor can it solve the sorts of geographic, sectoral, or skill mismatches [in the job market]. The Fed has already reduced the federal funds rate to near zero and provided \$1.7 trillion in added liquidity by buying mortgage backed securities and agency debt. And recall that while we were dropping the federal funds rate by 5 percentage points to near zero, monetary policy was unable to stop the rise in the unemployment rate from 5 to 10 percent. This suggests that very precise management of unemployment rates over the short-term is simply not something for which monetary policy is particularly well suited .... Thus, it is difficult, in my view, to see how additional asset purchases by the Fed, even if they move interest rates on long-term bonds down by 10 or 20 basis points, will have much impact on the near-term outlook for employment. Sending a signal that monetary policymakers are taking actions in an attempt to directly affect the near-term path of the unemployment rate, and then for those actions to have no demonstrable effects, would hurt the Fed’s credibility and possibly erode the effectiveness of our future actions to ensure price stability. It also risks leading the public to believe that the Fed is seeking to monetize the deficit and make it more difficult to return to normal policy when the time comes”.*

Similar sentiments were recently published in a St. Louis Fed discussion paper<sup>5</sup>,

*“Even if QE2 significantly affected output, its effect on employment would likely be somewhat smaller than usual for two reasons. First, at least some of the current unemployment is likely to be structural (ie. there is a mismatch between the skills of the unemployed and the skill needs of employers). There is little monetary policy can do about structural unemployment. Second, employment growth has been particularly sluggish in the previous two recessions, suggesting that post-recession employment dynamics differ greatly from those before the late 1980s, which suggests that the labor market has fundamentally changed. Hence post-recession employment growth could remain relatively slow regardless of the FOMC’s policy actions.”*

Moreover, simple arithmetic dictates long-term real US stock returns to be in the order of 4 - 4.5%, with or without QE2. (This relationship is governed by the starting dividend yield and real trend GDP, and assumes that QE2 is unable to result in a permanently higher profit share of GDP or PE multiple for stocks). Our colleagues have also noted that since US households in aggregate hold as much in fixed income assets as they do debt, the temporary cash flow effect from lower bond yields may turn out to be neutral to slightly negative<sup>6</sup>. While in theory a lower risk-free discount rate should lead to higher risk asset prices all other things being equal, this effect may be mitigated if the risk premium rises, for instance because of

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<sup>4</sup> This speech was delivered on September 29, 2010 (note both Charles Plosser (Philadelphia) and Charles Evans (Chicago) are rotating FOMC members). Along similar lines to sentiments addressed by Charles Plosser, see for instance recent commentary in the Financial Times from Jeffrey Sachs and Mohammed El-Erian, among others.

<sup>5</sup> “Would QE2 Have a Significant Effect on Economic Growth, Employment or Inflation?”, D. Thornton, *Economic Synopses*, Number 29, 13 October 2010, Federal Reserve Bank of St. Louis.

<sup>6</sup> See “Benefits and costs of QE2”, P. Hooper and T. Slok, *Global Economic Perspectives*, 29 September 2010. While in theory a lower risk-free discount rate should lead to higher risk asset prices, this effect may be mitigated if the risk premium rises, for instance because of additional uncertainty about the risks of policy error.

additional uncertainty about the risks of policy error or if the policy change is perceived as only a temporary stop-gap measure. Unfortunately the supply-side measures that do have the ability to increase underlying productivity growth and equilibrium risk-asset returns (such as a large-scale infrastructure build-out, or support for R&D projects), appear off the table at this stage in the political cycle (with mid-term elections just a fortnight away). In short, in our view *policy designed to temporarily drive risk-asset prices away from the underlying cash-flow-generating ability of the economy strikes us as highly risky, and most likely to end as a Pyrrhic victory.*

A fourth and final point we would make is in reference to the (perceived) benefits of a weaker \$US<sup>7</sup>. It has become obvious that while US home prices are still falling, much of the temporary asset-based benefits of QE2 are leaking outside of the US in the form of capital flows to EM – where a self-reinforcing cycle of ‘Greater Fool’ buying now appears to be underway (see Fig 5, showing Asian consumer stocks to be trading at record high Price/Book multiples. And as we discuss below, EM equity volatility is also at record lows). Additionally, small export price elasticities and the small gross export share of the US economy (just 17% of GDP) suggests a modestly cheap \$US is unlikely to bestow much in the way of stimulus to aggregate demand in the near-term. In this respect it is worth noting that the petroleum trade deficit comprises nearly half of the total US trade shortfall each month, ensuring higher oil prices negate some of the benefit to net trade from a weaker dollar (and faster ex-petroleum net exports). Monthly regressions suggest the (contemporaneous) beta of oil prices to movements in the nominal \$US Trade Weighted Index has increased substantially over the past 30 years, from ~0.3 in the 1980s to ~2.5 in recent years (ie. a 1% fall in the \$USTWI is now associated with a 2.5% rise in spot oil prices). Higher oil prices also act as a tax on household consumption, the largest share of the economy<sup>8</sup>.

### **Some Investment Implications for Investors in Asia**

Against this backdrop, for investors in Asia we discuss some cross-asset ideas with two overarching intentions. First, to own exposure to a wide dispersion in possible outcomes (not simply a base case). This scenario-based approach reflects the inherently unstable environment in which we now find ourselves. Second, to find ideas with the possibility of an asymmetric payoff - if we are wrong, we aim to inflict as little self-harm as possible, and if we are right, we would hope to generate a multiple of capital put at risk. These include:

- Straddles and variance swaps in Asian equities, either outright or vs. the US<sup>9</sup>. This was the topic of our last Investor Letter so we will not repeat the miniature here, but we have been encouraged that both legs of the trade have started to work and think this trade has room to run. Asian consumer stocks are presently trading at record high P/B multiples (Fig 5), equity inflows are running at a record pace (more than \$25bn last quarter, and \$8bn in the first two weeks of October alone<sup>10</sup>), and both realized volatility and the ‘vol of vol’ are close to record lows (Fig 6). Remarkably, at an 11% handle, the realized volatility of Asian equities is currently on par with that of the EUR/CHF exchange rate, historically a beacon of stability across international financial markets. By way of indication, a 3mth ATM straddle costs 7.3% in Korea, and ~9% in Taiwan, Hong Kong and India. This exposure enables participation to either a sharp drawdown or speculative ‘melt-up’, and has the property of a pre-defined max loss (the premium) with potentially unlimited gain.

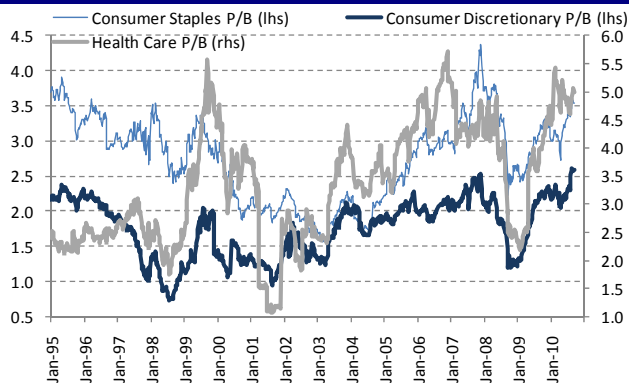
<sup>7</sup> The St. Louis Fed estimated the \$1.725trillion of asset purchases in QE1 to result in a decline of the dollar of 6.5%. See “The Large Scale Asset Purchases Had Large International Effects”, Chris Neely, July 2010.

<sup>8</sup> Household energy consumption currently comprises ~5.5% of total consumption, having risen as high as 7% in mid-2008 and as low as 4.5% in early-2009.

<sup>9</sup> The risk in purchasing straddles is the full cost of the option premium is forfeited if spot doesn’t exceed the breakeven

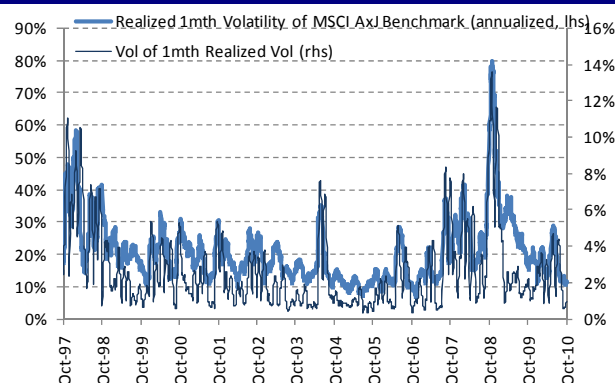
<sup>10</sup> These data exclude China, Hong Kong, Malaysia and Singapore, for which daily foreign inflow data is not available.

**Figure 5: Asian consumer stocks are now trading at record P/Book multiples ...**



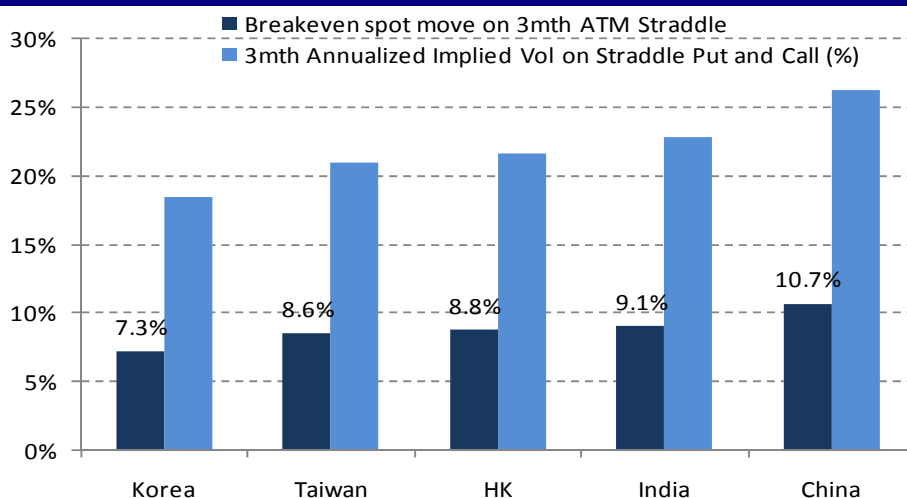
Source: Deutsche Bank, Bloomberg Finance LP

**Figure 6: ... and both realized vol, and the 'vol of vol', is at record lows for Asia's regional equity benchmark**



Source: Deutsche Bank, Bloomberg Finance LP

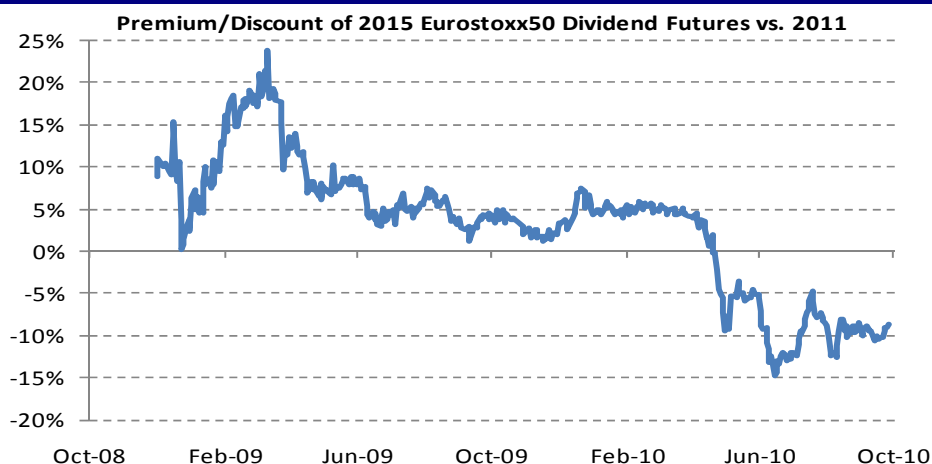
**Figure 7: The cost of 3mth ATM straddles on Asian stocks – a low hurdle to clear**



Source: Deutsche Bank

- For global equity investors looking to access EM growth through reasonably-priced and cashed-up large caps listed in the US and Europe (our favored approach to longer-term value investing), we offer two suggestions. First, 2015 dividend futures on the Eurostoxx50 have fallen 11% this year (over which time the market is unchanged), and now imply the level of dividends on the Eurostoxx50 in 2015 will be 9% below that of 2011. Such a fall would likely require multi-year deflation, and in any case, the tail-risk of distress in Europe can be easily and cheaply proxy-hedged, for instance via the purchase of 5yr sub-debt CDS protection on European banks for a cost of ~150bps per annum (with the added benefit that this spread is close to two-year tight). Note that in April last year, 2015 dividends were trading at a 24% premium to 2011 dividends (Fig 8). An alternative for real money investors, based on OECD companies with strong global brands that stand to benefit from the rise of EM consumption, but are not yet trading at a premium valuation multiple to the broader market, was addressed in a recent piece by our colleagues in the CROCI team (see "The Five Uses of Free Cash Flow", CROCI Views, 15 October 2010).

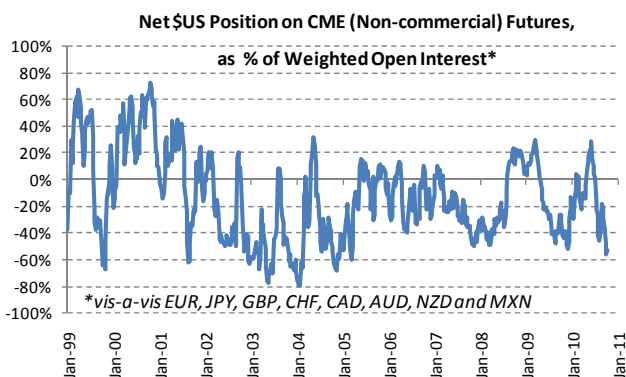
**Figure 8: 2015 Eurostoxx50 dividend futures – a lot of distress is already priced**



Source: Deutsche Bank, Bloomberg Finance LP

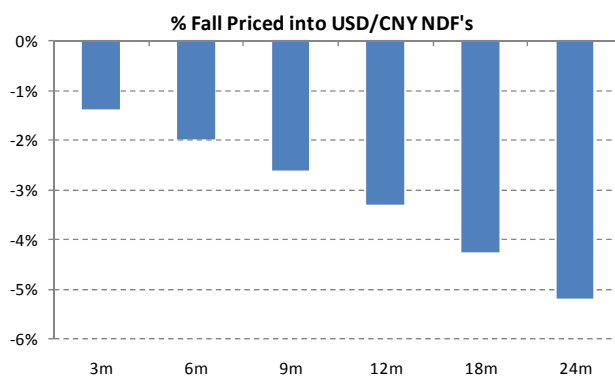
- With respect to currency markets, we think there are two interesting opportunities presenting themselves in the region. First and foremost is that forward-starting RMB NDF's still offer value, more so than shorter tenors which seem close to fully-priced. This is one of the few short \$US trades we still feel comfortable with on a tactical basis, in the face of a massive swing towards a short \$US exposure by the speculative community (Fig 9). For instance, while the 6mth USD/CNY NDF is priced for a 2% fall, for the 18 month period that follows, only an additional 3.2% is priced (Fig 10). If a steady 4-5%p.a. nominal move lower were to transpire in USD/CNY (as we expect), the longer-dated NDF's have much further to fall. A second tactical approach to EM FX that may offer some appeal at this juncture, bearing in mind the large short \$US exposure and increasingly unstable risk asset outlook, is to rotate toward intra-regional positive carry trades (though such trades still retain some degree of 'long risk' exposure). A likely candidate in Asia would be short TWD vs. INR and PHP. The combination of negative carry (-2% in the 1yr) in TWD, positive carry in PHP (2.2%) and INR (4.8%), with around 5% realized vol on both crosses, suggests an ex-ante Sharpe ratio in the order of 1 on the basket, without taking directional views. The crosses also have a only modest correlation to the S&P500 (~0.35), and importantly, policy makers in both India and the Philippines have not expressed much in the way of concern over local FX appreciation (albeit for different reasons).

**Figure 9: The net short \$US position is near a record**



Source: Deutsche Bank, Bloomberg Finance LP

**Figure 10: Longer-dated USD/CNY NDF's still offer value**



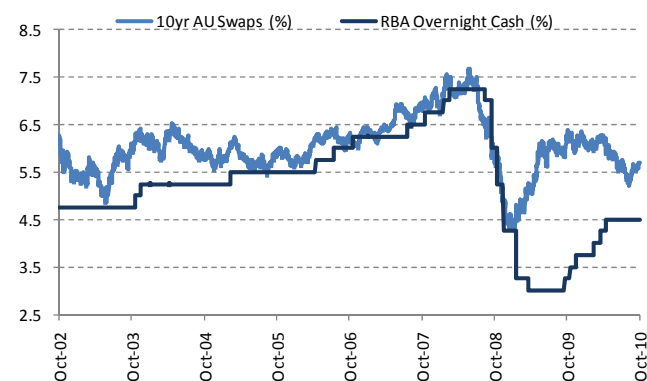
Source: Deutsche Bank, Bloomberg Finance LP



- Finally in fixed income markets, receiving in Australian and Korean swaps would serve as a cheap tail-risk hedge in the case of the former, and a core view and hedge in the case of the latter<sup>11</sup>. Of the major regional bond markets, Australia and Korea have the highest absolute bond yields, and the most highly leveraged household and banking sectors (bank loan-to-deposit ratios are in excess of 100% in both countries). In Australia's case, with the cash rate at 4.25% and 10y swaps at 5.67%, yields would have the most to fall in absolute terms in the event of a significant deterioration in global risk appetite (or accident in China). There is a higher hurdler for further RBA rate rises than we thought a couple of months ago now that cash rates have normalized, given i.) the (unexpected) pause by the RBA in November, ii.) mass-market housing activity is now slowing sharply in response to the policy normalization and deterioration in affordability, and iii.) the strength of the \$A is keeping monetary conditions firm. Six-month receivers struck at 5% on 10y swaps (67bps OTM) would seem a reasonable hedge against this backdrop, particularly after the 40bps sell-off since early September. In the case of Korea, the BoK's now pronounced reluctance to tighten the monetary screws - which would likely invite unwanted currency strength and perhaps exacerbate downward pressure on a housing market that has already peaked - coupled with the still sizeable spread between 3mth floating and 10y fixed legs (providing 1.5bp carry and roll-down a month), makes the trade interesting (Fig 12)<sup>12</sup>. A final point to make here is that while the prospect of capital controls (particularly with respect to bond markets) is looming large in Asia, there is a particular disincentive for Korea to re-impose withholding tax on KTB (and MSB) holdings for foreigners – it would likely preclude the addition of domestic government securities in the World Government Bond Index benchmark, which has been an overarching goal for the local administration for some time.

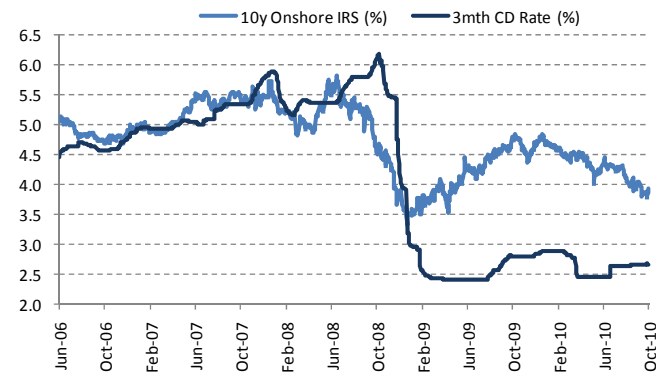
**Brad Jones, Asia Investment Strategist**

**Figure 11: OTM receivers in Aust—a cheap tail risk hedge**



Source: Deutsche Bank, Bloomberg Finance LP

**Figure 12: Receiving fixed in Korea is still attractive**



Source: Deutsche Bank, Bloomberg Finance LP

<sup>11</sup> The risk to these trades would be a much stronger outturn to global growth than we currently envisage.

<sup>12</sup> See Asia Local Markets Weekly, October 15, for more details.

# Appendix 1

## Important Disclosures

Additional information available upon request

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**Buy:** Based on a current 12-month view of total shareholder return (TSR = percentage change in share price from current price to projected target price plus projected dividend yield), we recommend that investors buy the stock.

**Sell:** Based on a current 12-month view of total shareholder return, we recommend that investors sell the stock

**Hold:** We take a neutral view on the stock 12-months out and, based on this time horizon, do not recommend either a Buy or Sell.

**Notes:**

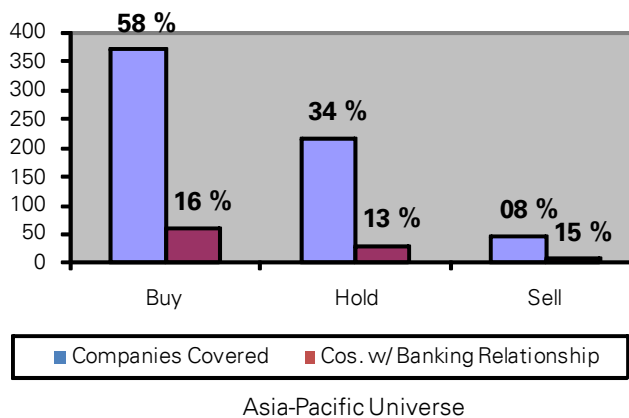
1. Newly issued research recommendations and target prices always supersede previously published research.

2. Ratings definitions prior to 27 January, 2007 were:

Buy: Expected total return (including dividends) of 10% or more over a 12-month period

Hold: Expected total return (including dividends) between -10% and 10% over a 12-month period

Sell: Expected total return (including dividends) of -10% or worse over a 12-month period



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## Deutsche Bank AG/Hong Kong

### Asia-Pacific locations

#### Deutsche Bank AG

Deutsche Bank Place  
Level 16  
Corner of Hunter & Phillip Streets  
Sydney, NSW 2000  
Australia  
Tel: (61) 2 8258 1234

#### Deutsche Bank AG

Level 55  
Cheung Kong Center  
2 Queen's Road Central  
Hong Kong  
tel: (852) 2203 8888

#### Deutsche Equities India Pte Ltd

DB House, Ground Floor  
Hazarimal Somani Marg  
Fort, Mumbai 400 001  
India  
Tel: (91) 22 6658 4600

#### Deutsche Securities Inc.

2-11-1 Nagatacho  
Sanno Park Tower  
Chiyoda-ku, Tokyo 100-6171  
Japan  
Tel: (81) 3 5156 6770

#### Deutsche Bank (Malaysia) Berhad

Level 18-20  
Menara IMC  
8 Jalan Sultan Ismail  
Kuala Lumpur 50250  
Malaysia  
Tel: (60) 3 2053 6760

#### In association with Deutsche Regis Partners, Inc.

Level 23, Tower One  
Ayala Triangle, Ayala Avenue  
Makati City, Philippines  
Tel: (63) 2 894 6600

#### Deutsche Securities Korea Co.

17th Floor, YoungPoong Bldg.,  
33 SeoRin-Dong,  
Chongro-Ku, Seoul (110-752)  
Republic of Korea  
Tel: (82) 2 316 8888

#### Deutsche Bank AG Singapore

One Raffles Quay  
South Tower  
Singapore 048583  
Tel: (65) 6423 8001

#### Deutsche Securities Asia Ltd

Taiwan Branch  
Level 6  
296 Jen-Ai Road, Sec 4  
Taipei 106  
Taiwan  
Tel: (886) 2 2192 2888

#### In association with TISCO Securities Co., Ltd

TISCO Tower  
48/8 North Sathorn Road  
Bangkok 10500  
Thailand  
Tel: (66) 2 633 6470

#### In association with PT Deutsche Verdhana Indonesia

Deutsche Bank Building,  
6th Floor, Jl. Imam Bonjol No.80,  
Central Jakarta,  
Indonesia  
Tel: (62 21) 318 9541

### International locations

#### Deutsche Bank Securities Inc.

60 Wall Street  
New York, NY 10005  
United States of America  
Tel: (1) 212 250 2500

#### Deutsche Bank AG London

1 Great Winchester Street  
London EC2N 2EQ  
United Kingdom  
Tel: (44) 20 7545 8000

#### Deutsche Bank AG

Große Gallusstraße 10-14  
60272 Frankfurt am Main  
Germany  
Tel: (49) 69 910 00

#### Deutsche Bank AG

Deutsche Bank Place  
Level 16  
Corner of Hunter & Phillip Streets  
Sydney, NSW 2000  
Australia  
Tel: (61) 2 8258 1234

#### Deutsche Bank AG

Level 55  
Cheung Kong Center  
2 Queen's Road Central  
Hong Kong  
Tel: (852) 2203 8888

#### Deutsche Securities Inc.

2-11-1 Nagatacho  
Sanno Park Tower  
Chiyoda-ku, Tokyo 100-6171  
Japan  
Tel: (81) 3 5156 6770

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