# Morgan Stanley

August 4, 2010

## The Global Monetary Analyst

## Will Food Inflation Bite?

Soaring grain prices have brought food inflation back to centre stage. Using the expertise of our EM economics teams, we examine whether food inflation is likely to pose enough of a threat to get central banks to act aggressively. With the notable exception of India, and to a lesser extent Indonesia, most EM central banks appear to be willing to look through the recent rise in food prices. Despite their greater weight in EM CPI indices, along with significant and volatile changes in prices, food price inflation does not appear to pose large and persistent upside risks to overall CPI inflation. The risk to such a strategy is that keeping monetary policy ultra-loose makes it easier for higher food prices to spill over into the prices of other items, possibly raising the overall level of prices. Such a general price increase would require policy action, and possibly more aggressive policy action if left too late. EM economies with their robust growth and rapidly closing output gaps are more at risk of such a scenario. The growth in domestic demand that is already evident in so many EM economies provides domestic producers with sufficient pricing power to allow such spillovers.

### **Central Bank Watch**

US: Extending the Tax Cuts	p 7
Japan: Further Easing, Later Exit	p 8
UK: MPC Meeting Preview	p 8
New Zealand: Proceed with Caution	p 9
Russia: CBR Keeps Rates Unchanged	p 9
Poland: As Little Fiscal Tightening as Possible	p 10
Hungary: A Risky Bet, and the Odds Aren't Good	p 10
South Africa: Electricity Shocks PPI	p 11
China: Interbank Liquidity Monitor	p 11
India: Trade Deficit Moderates but Still High	p 12
Korea: Rate Hike Cycle to Continue	p 12
Peru: Monetary Policy Preview	p 13

#### MORGAN STANLEY RESEARCH

#### Global Economics Team:

Coordinators of this publication

#### Joachim Fels

Joachim.Fels@morganstanley.com

+44 (0)20 7425 6138

#### Manoj Pradhan

Manoj.Pradhan@morganstanley.com

+44 (0)20 7425 3805

#### Spyros Andreopoulos

Spyros.Andreopoulos@morganstanley.com

+44 (0)20 7677 0528

### **Key Central Bank Risk Events**

Date	Country	Event
05 Aug	Peru	Rate decision: Expect 25bp hike
05 Aug	Euro Area	Rate decision: Expect on hold. Press conference
05 Aug	UK	Rate decision: Expect on hold
05 Aug	Czech Rep.	Rate decision: Expect on hold
05 Aug	Colombia	Monetary policy meeting
06 Aug	Euro Area	Trichet address at Europ. Youth Parlmt in Frankfurt
06 Aug	Euro Area	Bini Smaghi participates in festival in Capalbio, Italy
06 Aug	Australia	RBA statement on monetary policy
08 Aug	US	Rate decision: Expect on hold.
10 Aug	US	FOMC meeting
10 Aug	Japan	Rate decision: Expect on hold
11 Aug	Norway	Rates decision: Expect on hold
12 Aug	Korea	Rate decision: Expect on hold

### What's Changed?

	Forecast Changes Since Last Week
S. Africa	CPI: 4.6% in 2010 (prev. 4.8%)

#### Where Do We Differ Most from the Market?

BoJ to cut rates in 4Q10, markets expect no cuts (page 14)

SNB to stay on hold for 2010, markets expect hikes (page 15)

Riksbank to hike rates slower than markets expect (page 15)

For important disclosures, refer to the Disclosures Section, located at the end of this report.

Global

### Will Food Inflation Bite?

Manoj Pradhan (44 20) 7425 3805

- Soaring grain prices have brought food inflation back to centre stage. Using the expertise of our EM economics teams, we examine whether food inflation is likely to pose enough of a threat to get central banks to act aggressively.
- With the notable exception of India, and to a lesser extent Indonesia, most EM central banks appear to be willing to look through the recent rise in food prices.
   Despite their greater weight in EM CPI indices, along with significant and volatile changes in prices, food price inflation does not appear to pose large and persistent upside risks to overall CPI inflation.
- The risk to such a strategy is that keeping monetary
  policy ultra-loose makes it easier for higher food
  prices to spill over into the prices of other items,
  possibly raising the overall level of prices. Such a
  general price increase would require policy action, and
  possibly more aggressive policy action if left too late.
- EM economies with their robust growth and rapidly closing output gaps are more at risk of such a scenario. The growth in domestic demand that is already evident in so many EM economies provides domestic producers with sufficient pricing power to allow such spillovers.

Soaring grain prices are attracting a lot of attention in markets at the moment. Given the strong role that food prices played in emerging markets in the inflation spike of 2007-08, attention naturally centres on the role of food inflation. Is food inflation likely to push headline CPI inflation significantly higher? Are policymakers poised to head off any potential threat from food price inflation aggressively? We asked our EM country economics teams to give us their assessment of the impact of high food prices and how central bankers will approach this issue

The collective opinion suggests that food prices, despite their large weight in headline inflation, are unlikely to cause a large impact on headline numbers. In addition, central banks are probably willing to overlook food price inflation to ensure

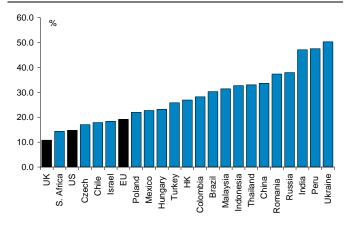
further consolidation in growth, with the notable exception of India and a growing risk of monetary intervention in Indonesia. With sufficient domestic stockpiles and a slowing global economy, central banks are unlikely to be aggressive in hiking rates. But slow action could allow food prices to spill over into prices of other items, raising the risk that central banks will have to deal more aggressively with this more general increase in prices further down the road.

This is not the first time in the recent past that food price inflation has grabbed the attention of markets. In the 2007-08 episode, food price inflation was spurred by strong global growth. Even though the Great Recession pushed food prices lower, many of the debates from that time remain relevant today (see Land to Mouth: How to Profit from the Food Chain in Food, Robert Feldman and Hussein Allidina, January 15, 2008, and Buy Chicken!!, Robert Feldman, May 21, 2008). Food prices have been making regional headlines in emerging markets for some time now, as our AXJ and CEEMEA teams have documented (see India EcoView: Food Inflation Concerns Rising, December 22, 2009, and "Is Food Price Inflation Still a Potential Threat?" CEEMEA Macro Monitor, March 1, 2010). Yet central banks seem somewhat removed from the debate as they tend to focus less on volatile items like food and energy.

Central banks use core inflation or trimmed means for policy purposes: Many central banks prefer to focus on core or trimmed measures of inflation for the purposes of monetary policy. The reasoning is simple enough: food price inflation is volatile and affected strongly by factors like weather that have little to do with economic fundamentals. Focusing on a core measure or ignoring both extremely docile and highly volatile items (in the case of trimmed measures) allows central banks to deal with fundamental drivers of inflation more effectively.

Less persuasive for EM economies: This argument works very well for developed economies but is less persuasive for emerging markets. Food prices are just as volatile, if not more so, in emerging markets and the forces driving them can be even more idiosyncratic, given less stable supply chains and transportation facilities. Food price inflation has stayed true to its tarnished reputation, fluctuating with a relatively high mean and showing significant variation on either side of that mean (see Exhibit 1). Positive and high food price inflation has meant a ratcheting effect on the level of food prices.

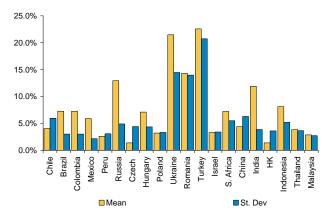
Exhibit 1
Food Prices Have a Higher Weight in EM CPI
Indices



Source: Haver Analytics

Importantly, the weight that food prices are assigned in headline CPI is much higher in emerging markets than it is in developed economies. This makes food prices that much more important when it comes to monetary policy. Exhibit 2 shows that the weights for food prices in CPI inflation for emerging markets fall in a wide range and generally average around 30%. Comparatively, the weights for food prices in the US, euro area and the UK currently stand at 15%, 19% and 11%, respectively.

Exhibit 2
Food Inflation Has Remained High and Volatile



Source: Haver Analytics, Morgan Stanley China Economics estimate

Lastly, food prices are likely to have larger effects on savings and consumption behaviour and therefore on household utility in emerging markets. Given that emerging markets are likely to have relatively lower personal income levels, food consumption will take up a larger chunk of personal disposable income. Higher food inflation then lowers personal disposable income and could reduce consumption because of the 'income effect'. Further, the volatility in food price inflation will tend to make households more conservative in their spending in order to compensate for the uncertainty surrounding food prices – the so-called 'precautionary motive' for savings.

Why central banks tend to leave food prices alone: Given all of these arguments, one would expect central banks to pay closer attention to food price inflation. And they do. However, most central banks are likely to avoid reacting to food prices because the drivers of volatility are not necessarily economic fundamentals, as we discussed earlier. The globalisation of commodity markets and prices gives central banks yet more reason for ambivalence. During the sharp rise in food prices in 2007, most central banks glossed over the spikes in food price inflation. The ability of central banks to respond to such global trends was limited, they argued. However, many, if not most, central banks are adamant that no 'second round effects' should occur. That is, they would use their policy tools such that there is no transmission into core prices (and inflation expectations).

This time seems to be no different: EM central banks (with the notable exception of India – see Exhibit 3) seem poised to look through food price rises. The list of reasons will likely include all of the above arguments. In addition, a weaker global backdrop and high stockpiles of domestic inventories are likely to further convince monetary policymakers to hold their fire.

Food Inflation Worries for the RBI



Source: Haver Analytics

**Domestic inventories seem to be adequate:** Domestic inventories seem to be adequate, with most stockpiles near or even above their historical levels of comfort. While this may

## Morgan Stanley

#### MORGAN STANLEY RESEARCH

August 4, 2010 The Global Monetary Analyst

not do much to keep the pressure on food price inflation in the very short run, it gives policymakers some reassurance that these stockpiles could be used to put pressure on prices if needed. India and Indonesia, where food inflation is adding to more general pressure on headline CPI, and on the central bank, need particular attention. In India, stocks are sufficient to meet welfare scheme requirements and good monsoons should ease the pressure on prices going forward. In Indonesia, however, stockpiles are relatively lower and the ability of policymakers to manage prices there is therefore lower.

Central banks appear poised to look through the current rise in food inflation: With the notable exception of India (where the RBI is worried about food and non-food price inflation and has already tightened policy), and to a lesser extent Indonesia (where the central bank is yet to raise policy rates), most central banks appear to be satisfied to look through food price shocks to inflation.

In AXJ economies, where growth is closing the output gap the fastest, general pressures on prices appear to be on the radar of the central bank. This is true to a lesser extent in LatAm economies. Brazil's lacklustre performance in 2Q10 should not detract from the stronger-than-expected recovery in many other performers in the region. Even there, inflation has not yet raised sufficient concerns. The main reason for rate hikes in both regions appears to be in order to remove some of the extraordinary easing that was delivered to fend off the Great Recession. Recent concerns about global growth are unlikely to derail the tightening process in most places but will likely slow it down as central banks pay close attention to growth.

This is likely to be most evident in China, where the PBoC acted against property speculation with great zeal earlier on. As a result, our China team expects a loosening of the constraints on loans later in the year in order to foster more growth. In other economies where rate hikes have just started or are yet to start, the speed with which central banks raise rates will probably be slower, at least initially.

Complacency would be dangerous: Central banks, however, would be well advised to stay vigilant. Our commodities team still expects some upside to food prices, which could translate into higher CPI prints, given the large weights allocated to food prices. More worrisome are 'second-round effects'. The positive drift in inflation and the ratcheting up of food prices means that there is a higher risk of spillovers into other 'core' prices.

Recovery puts EM more at risk: Emerging markets are currently particularly susceptible to such spillovers, given that their economies are recovering and the output gap is closing fast in most countries. The recovery means that domestic demand has recovered strongly in many emerging economies, particularly in Asia and in many Latin American economies. An entrenched recovery and growing domestic demand make it easier for domestic producers to pick up pricing power and for food price inflation to spill over into other non-food items. Central banks could then find that their task is a lot harder further down the road.

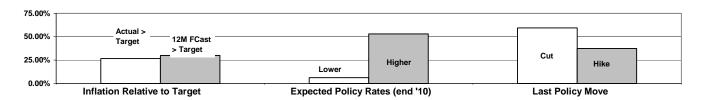
## **Inflation Target Monitor & Next Rate Move**

Global Economics Team. Contact: Manoj.Pradhan@morganstanley.com

	Inflation target	Latest Month	12M MS FCast	Next Rate Decision	Current Rate	Market Expects (bp)	MS Expects (bp)	Risks to our call
US	1.5-2.0% PCE Price Index	1.4%	2.2%	08 Aug	0.125	0	0	Fed firmly on hold
Euro Area	< 2% HICP (u)	1.7%	2.1%	05 Aug	1.00	3	0	EONIA to stay below refi rate until July
Japan	0-2% CPI (u)	-1.0%	-0.2%	10 Aug	0.10	0	0	-
UK	2% CPI	3.2%	2.4%	05 Aug	0.50	0	0	Tail risk of a rate rise in August
Canada	1-3% on CPI	1.0%	1.7%	08 Sep	0.75	19	25	If US economy disappoints, BoC may slow tightening
Switzerland	<2% CPI (u)	0.4%	0.4%	19 Sep	0.25	5	0	<u>-</u>
Sweden	2.0% CPI	0.9%	1.3%	02 Sep	0.50	25	0	Balanced
Norway	2.5% CPI	1.9%	2.5%	11 Aug	2.00	1	0	Small risk of a hike
Australia	2-3% over the cycle	3.1%	2.4%	07 Sep	4.50	0	0	An increase
New Zealand	1-3% CPI	1.8%	1.8%	16 Sep	3.00	17	0	Close call for a hike
Russia	none	5.8%	8.0%	end Aug	7.75	0	0	-
Poland	2.5% (+/- 1%) CPI	2.4%	2.5%	24 Aug	3.50		0	-
Czech Republic	3.0% (+/-1%) CPI	1.2%	1.8%	05 Aug	0.75		0	-
Hungary	3.0% CPI	5.2%	3.1%	23 Aug	5.25		0	-
Romania	3.5% (+/-1%) CPI	4.4%	4.2%	29 Sep	6.25	-	0	-
Turkey	6.5% CPI end '10	7.6%	6.3%	19 Aug	6.50	0	0	-
Israel	1-3% CPI	2.4%	2.5%	23 Aug	1.75	-	0	-
UAE	-	0.8%	1.5%	-	1.00	J -	-	-
South Africa	3-6% CPI	4.2%	5.2%	09 Sep	6.50		0	ZAR strength, CPI undershoot prompt further easing
China	-	2.9%	3.0%	-	5.31		0	Balanced risk
India	NA	10.6%	8.9%	16 Sep	5.75	0	25	Growth weaker than expected
Hong Kong	-	2.8%	2.5%	-	0.50	-	0	Premature US tightening upon global inflation uptick
S. Korea	2-4% CPI	2.6%	3.4%	12 Aug	2.25	-	0	Accelerated rate hike cycle on the back of strong recovery
Taiwan	-	1.2%	2.0%	25 Sep	1.38	-	12.5	Greater hikes possible if inflation pressure rises further
Singapore	1.5% (long-term CPI) (u)	2.8%	2.6%	01 Oct	0.55	-	NA	Changes in the FFTR and SGD appreciation pace
Indonesia	5% +/- 1.0%	6.2%	5.0%	03 Sep	6.50	-	25	Evenly balanced
Malaysia	-	1.7%	1.7%	02 Sep	2.75	-	25	Evenly balanced
Thailand	0.5-3.0% core CPI	3.4%	3.8%	25 Aug	1.50	-	25	Evenly balanced
Brazil	4.5% +/-2.0% IPCA	4.8%	5.4%	01 Sep	10.75	25	25	Soft data of late could keep BCB on hold
Mexico	3% +/-1% CPI	3.7%	3.5%	20 Aug	4.50	0	0	Tangible signs of a slump in US growth
Argentina	15.5-24.2% M2 growth	11.0%	10.5%	NA	10.25	-	-	-
Peru	2% +/-1% CPI	1.8%	2.2%	05 Aug	2.00	25	25	Policy tightening in response to scorching recovery
Colombia	3% +/-1% CPI	2.3%	4.1%	20 Aug	3.00	0	0	CB underestimating inflation risk as recovery proves stronger

(u) = unofficial

Notes: Inflation numbers in red indicate values above target;, green below target MS expectations in red (green) indicate our rate forecasts are above (below) market expectations;

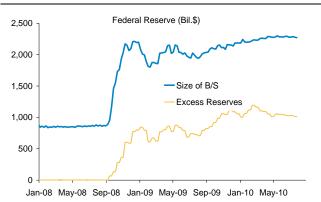


Source: National Central Banks, Morgan Stanley Research
Notes: (u) = unofficial target; Interest rate expectations are implied by overnight indexed swap (OIS) curves and may differ from those implied by other instruments; where adequate OIS data are not available, FRAs, foreign exchange swaps, and/or interbank cash rate futures are used; due to varying risk premia (such as liquidity, basis, credit, term, reserve management, calendar turns, etc.), these figures should be used as estimates only, where such instruments are not available, we have inserted our best guess of what markets expect based on consensus estimates.

## **Central Bank Balance Sheet Monitor**

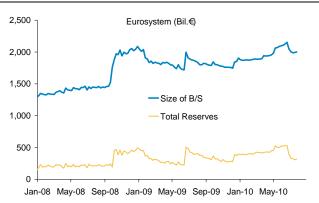
Global Economics Team. Contact: Manoj.Pradhan@morganstanley.com

### US



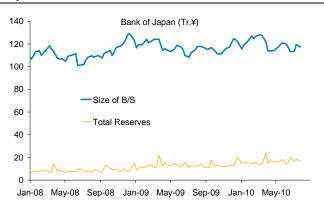
Source: Haver Analytics

### **Europe**



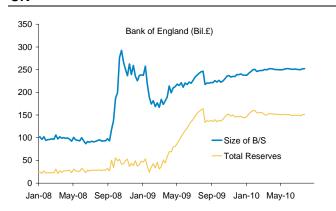
Source: Haver Analytics

### Japan



Source: Haver Analytics

### UK



Source: Haver Analytics

## Morgan Stanley

August 4, 2010 The Global Monetary Analyst

## Central Bank Watch

### What's New This Week?

<b>US:</b> Extending the Tax Cutsp 7
Japan: Further Easing, Later Exitp 8
UK: MPC Meeting Previewp 8
New Zealand: Proceed with Cautionp 9
Russia: CBR Keeps Rates Unchangedp 9
Poland: As Little Fiscal Tightening as Possible p 10
Hungary: A Risky Bet, and the Odds Are Not Good p 10
South Africa: Electricity Shocks PPI p 11
China: Interbank Liquidity Monitor p 11
India: Trade Deficit Moderates in June but Still High p 12
Korea: Rate Hike Cycle to Continue p 12
Peru: Monetary Policy Previewp 13

# **US: Extending the Tax Cuts: The Fiscal Debate Begins**

Richard Berner (1 212) 761 3398

**Preserving stimulus:** The debate over extending expiring tax cuts has begun in earnest. To preserve stimulus, we have assumed that today's tax rates and credits would be extended for middle-income taxpayers, that rates on capital gains and dividends would be raised to 20%, and that an estate tax fix and AMT patch would be enacted.

At the 11th hour, kicking the can down the road: Although expiration looms, Congress is unlikely to settle the tax issue decisively soon; partisan divisions mean that a one-year extension before the mid-term elections in November is thus the most likely outcome. While that would temporarily preserve stimulus, it would also leave tax and fiscal policy unusually uncertain, blunting the intended impact.

Risks to our forecast: If Congress fails to act on the expiring tax provisions, income taxes will rise by US\$125 billion more than we've assumed in FY2011 and by more than that in out years. The resulting fiscal drag likely would trim growth in 2011 by half a percentage point or more from our 3% baseline.

**Broader debate:** The 2010 debate around tax rates is merely the opening salvo in a broader narrative about reconciling near-term stimulus with longer-term fiscal sustainability, about reforming the tax system, and about the tough choices required to pare and thus preserve the essential benefits of our healthcare and other safety nets.

For full details, see <u>Extending the Tax Cuts: The Fiscal</u> <u>Debate Begins</u>, July 30, 2010.

## Central Bank Watch

### Japan: Further Easing, Later Exit

Takehiro Sato (81 3) 5424 5367

Further easing more plausible: The BoJ is increasingly emphasising exports and production and, while successively upgrading its view on the economy, maintains a reluctant stance on further monetary easing. In our view, however, the monetary policy outlook bears less relation to the BoJ's position on the economy and prices, and in terms of the broader picture is tending towards further easing. This is because the government's desire to aim for an end to deflation appears still to be playing an important part. Moreover, the yen rate is also important. Because further yen appreciation could exacerbate the shift of capex overseas and lower the domestic potential growth rate, a sense of caution is in evidence at the BoJ. We expect monetary policy to tend towards further easing in 2010 up to the October-December quarter, and we think that moves in the yen rate will be linked very closely to this process.

Exit has moved out of sight: Our outlook has been for the BoJ to start implementing an exit strategy by raising policy interest rates to the level of 0.25% in January-March 2012. However, based on interactions with prolonged general price deflation and policy moves by central banks in other leading nations, it is becoming increasingly unclear as to whether the bank will actually move towards the exit so soon. For example, in our assumptions we also foresee the year-onyear core CPI recovering to positive territory during F3/12. Yet, the consumer price statistics face a five-yearly revision of standards in August 2011 (from July 2011 data). If we consider the Laspeyres index-type nature of the CPI, the possibility seems fairly high of the next round of revisions resulting in a lower year-on-year growth rate in the core CPI, as happened with the CPI shock in August 2006, and we could also see consumer prices holding below the surface. depending on how energy prices and FX rates fare thereafter. If so, we believe that January-March 2012 would not be the time for the BoJ to start moving towards the exit. Based on the argument above, we postpone our forecast of the BoJ's execution of the exit strategy to the October-December quarter of 2012.

### **UK: MPC Meeting Preview**

Melanie Baker, CFA (44 20) 7425 8607 Cath Sleeman (44 20) 7425 1820

We expect the MPC to leave monetary policy unchanged at its August policy meeting tomorrow: There is an outside chance that it tightens or loosens policy. If the MPC does change policy, we'd expect that to be a rate rise, not a resumption of QE.

Why the risk of a change? It's an Inflation Report month – the MPC will have taken an in-depth look at its forecasts ahead of that Report, and there have clearly been some significant data/developments to mull over that will pull in different directions on its forecasts.

Why is a rate rise more likely than restarting QE? 2Q GDP growth was very strong, inflation remains high and one MPC member has already voted to raise rates. The MPC has recently hinted that the government spending cuts in the budget won't have a huge impact on its growth forecasts (e.g., Governor King in testimony to the Treasury Committee), but that incorporating the planned 2011 VAT rise will mean that inflation doesn't now move below the target for most of next year (Spencer Dale interview in *The Independent*). There's also some risk that the MPC revisits its actual inflation forecasting methodology (given persistent upside inflation surprises) and that this leads to much bigger than otherwise changes to its inflation forecasts.

Why don't we expect any change in policy at this meeting? We expect that the MPC will wait for a broader range of indicators to show a more sustained pick-up in activity and/or a marked pick-up in inflation expectations. We wouldn't be surprised though if the Minutes released on August 18 reveal that another MPC member has joined Andrew Sentance in voting to raise rates.

# Central Bank Watch

### **New Zealand: Proceed with Caution**

Manoj Pradhan (44 20) 7425 3805

The RBNZ hiked rates to 3% at its meeting on July 28: For the stage of the hiking cycle that the RBNZ is at (second hike after nearly a year at 2.5%), the statement was extremely dovish. To start qualifying a rate hike after just 25bp of hikes suggests downside risks to the 50bp of hikes we expect for the rest of the year. The statement suggests that the RBNZ views its 2.5% floor as providing an "extraordinary" level of support. Even if policy rates are raised by a further 50bp, a 3.5% OCR would still be accommodative.

# Importantly, the stance on almost every forward-looking perspective is soft: A few examples:

- "Future prospects for (trading partner) growth have deteriorated". The earlier statement had "recovery in trading partner activity is continuing, with growth in Asia particularly strong".
- "Recent slowing in net immigration will act to further dampen consumer spending".
- "This (NZD) appreciation is inconsistent with the softening in New Zealand's economic outlook and moderation in our export commodity prices". In June, the RBNZ had "export commodity prices have increased sharply over the past few months, boosting export incomes".
- "We continue to predict respectable near-term GDP growth".
   In June: "The economy has entered its second year of recovery with growth becoming more broad-based".
- "An eventual recovery in business investment will assist growth over the medium term".

In June, the RBNZ expected that global developments would most likely impact the New Zealand economy via higher funding costs. The moderation in the growth outlook seems to have caught the bank a little by surprise. We don't think that the global economy will double-dip. Rather, the slower 2H10 that our global team expected is now slowly becoming consensus. RBNZ moves and statements are thus likely to get firmer as the global growth trajectory consolidates.

### Russia: CBR Keeps Rates Unchanged

Alina Slyusarchuk (44 20) 7677 6869

As expected, the Central Bank of Russia kept the refi rate unchanged at 7.75% on July 30: The CBR's statement highlighted that the estimated level of inflation risks in the coming months does not warrant a change in monetary policy. The CBR pointed to the ongoing macroeconomic positive trends: unemployment is significantly down to 6.8% in June compared to 7.3% in May, and the CBR claimed that further declines would signal that the economy is back on a sustainable growth path. Along with an improving labour market, real wages also accelerated in June. These trends suggest that domestic demand dynamics are on the mend, though for a sustained recovery, a supportive credit environment would also be needed.

We see rates on hold at the August meeting: The CBR added that another sign of economic recovery is the dynamic growth of fixed investment and the ongoing recovery in retail sales. The situation in domestic financial markets was stable and there is no clear trend in exchange rate dynamics – the appreciation and depreciation risks were balanced. As stated, the current level of rates ensures the balance between the availability of credit resources and the inflation risks driven by monetary factors. The next rate-setting board meeting is set for the end of August. At that meeting, we expect the CBR to continue to keep rates on hold. Our year-end refi rate forecast is 7.75%. The rationale for our view is that inflation risks are rising, which will prevent the CBR from cutting further. At the same time, we do not expect tightening this year either.

On the data front, in June M2 rose 2.2% on the month, while M0 was up 3%M. Year-on-year growth rates were almost flat for M2, at 30.6%Y in June from 30.7%Y in May. M0 was up 24%Y in June from 22.5%Y in May.

The data show that credit activity is recovering: Total credit was up 2%M in June. Household credit was up 1.6%M, while non-financial corporate credit was up 2.1%M. Credit to banks added 2%M in June after dropping 3.4%M in May. The share of overdue loans went down from 5.56% in May to 5.42% in June, mainly driven by a decrease in corporate overdue loans. Deposits also flowed into the banking system: household deposits were up a strong 3.2% in June (up 1.7%M in May). The steady recovery in credit is key to our call that consumer spending is going to improve.

## Central Bank Watch

# Poland: As Little Fiscal Tightening as Possible

Pasquale Diana (44 20) 7677 4183

No major fiscal correction in sight: The countours of the Polish fiscal plan for 2011-13 show no ambitious fiscal consolidation. The deficit is planned to be brought below 3% of GDP in 2013, which is one year later than in the previous convergence programme. VAT rates are going up by around 1% broadly across the board, also on the preferential rates (so this could mean an impact of 0.8pp instead of the 0.65pp we were counting on, assuming full pass-through). The VAT hike should last three years and add approximately PLN 5-5.5 billion to revenues per year (about 0.4% of GDP). Given that this is highly unlikely to be enough on its own to avoid a breach of the crucial 60% debt/GDP ratio, the PM also announced that the privatisation process will continue, with targets of PLN 25 billion next year and PLN 55 billion in total by 2013. Recall that, assuming unchanged policy (clearly a somewhat extreme assumption), the Polish debt/GDP ratio would exceed 60% already in 2013 (see An Exercise in Debt Sustainability, July 19, 2010). The overall message is still that the government is relying on growth, privatisation and VAT increases to drive the deficit reduction, rather than implementing more aggressive fiscal consolidation. This week's announcements are in line with PM Tusk's overall philosophy of doing as little as needed – just enough to please investors and the rating agencies, but no more. The busy electoral calendar (local elections this autumn, parliamentary ones in 2011) explains Tusk's reluctance to cut the deficit. Judging from S&P's reaction yesterday, the PM is achieving his objective: S&P said that it does not plan any ratings action soon, and reaffirmed its stable outlook on Poland.

From the NBP's standpoint, the VAT hike points to higher CPI in 2011, and therefore rate increases: This argument is far from compelling to us, but three MPC members (Kazmierczak, Chojna-Duch, Glapinski) have used it recently so probably it is gaining in importance on the MPC. We maintain our long-standing call that there is room for 50bp of rate hikes by year-end (potentially starting as early as September), and the Street seems to be changing its view towards the direction of rate hikes this year. More importantly, from a medium-term standpoint, serious fiscal consolidation is being delayed again, which could mean a higher risk premium for PLN assets.

# Hungary: A Risky Bet, and the Odds Are Not Good

Pasquale Diana (44 20) 7677 4183

Playing with fire: The abrupt end of the IMF talks and subsequent statements by PM Orban confirm that a new, unorthodox approach towards international lenders has set in. The new administration seems intent to break away from the past and reaffirm Hungary's right to determine its economic policies without external interference. This strategy carries many risks, in our view, and recent rating actions have been a reminder of this. Policymaking has become more erratic, and investors will have to get used to this.

Credibility took years to build, but can vanish quite quickly: As we have stressed many times, the improvement in Hungary's macro fundamentals since 2006 has been nothing short of impressive. The current account deficit has disappeared, the structural fiscal position is one of the best in the whole EU and the banking system has weathered the recession well. But this is no reason to get complacent, in our view. Our recent debt-sustainability analysis shows that the only way for the debt ratio to stabilise at current levels is for policy to stay tight. Also, it is not clear to us why the authorities now think that an IMF credit line is unnecessary.

The NBH will not stand idly by: The central bank is clearly concerned by the new turn policy has taken, and has signaled that it stands ready to hike interest rates if necessary. Based on previous rules of thumb on currency and FX, we think that the August inflation projection will probably see CPI at above 3% in 2011-12, unless of course the NBH chooses to rely on the output gap to tame inflation once again. It may be too soon to hike rates, but at least the discussion on a rate increase could come onto the agenda soon. A rate hike is not our central case yet, but it seems to us more likely than a rate cut, especially if HUF is biased to weaken from here, which seems likely to us.

For full details, see <u>Hungary: A Risky Bet, and the Odds Are</u> Not Good, July 29, 2010.

## Central Bank Watch

### South Africa: Electricity Shocks PPI

Michael Kafe, CFA (27 11) 587 0806 Andrea Masia (27 11) 587 0807

PPI rose to 9.4%Y in June from 6.8%Y previously, a large upside surprise to market consensus of 7.5%Y but only marginally higher than our 9.0%Y expectation. The switch to winter electricity prices explained most of the 4.0%M increase. Part of the seasonal electricity tariff increase will be reversed in September, however. The policy implications of the July 29 release are balanced to slightly hawkish. Here's why:

Seasonal electricity increase highest on record: The 51.6%M increase in electricity prices registered in June was higher than we had anticipated (45%M). As is usual, Eskom shifts to winter electricity tariffs in June, only to be partially reversed towards the lower summer tariff in September. Not only is this data point the single largest increase in electricity prices in the history of South Africa's PPI, but it also raises the risk that similar, higher-than-normal increases will transpire in future years – ensuring that such shocks become permanently embedded in the system. Indeed, the risk we now face is one of structurally higher seasonal electricity tariff increases (i.e., over and above the Multi-Year Pricing Determination agreement between NERSA and Eskom, which entitles Eskom to permanently hike its tariffs by 24.8% this year).

Food prices finally turn the corner: We couldn't help but notice that the agricultural price component has now turned inflationary (0.3%M) for the first time since January. Food prices drove this increase, rising 1.0%M, compared to five straight months of deflation. Vegetables and grain products rose 13.8%M and 2.6%M, respectively. As we have highlighted previously, we believe that the benefit of food disinflation has run its course, and the July 29 data could reflect early signs of future food inflation at the CPI level.

Shock to basic metals – and more to come: Also worth mentioning is the fact that the basic iron and steel component rose a whopping 11%M. While it is true that the world iron and steel benchmark index pointed towards a 13.7%Q increase in 2Q10, the quarterly survey is usually done in May and not in June, hence our surprise at this increase.

**Final thoughts:** On the whole, the 4.0%M increase in June PPI was driven mainly by the seasonal jump in electricity tariffs, but early-warning amber lights are starting to flash across several other components too. And while it is true that the current PPI is not much more than a de facto commodity price index, the fact remains that certain components of the PPI have relevance for forward-looking CPI prints. Some of these portend upside risks to the CPI trajectory.

### **China: Interbank Liquidity Monitor**

Steven Zhang (86 21) 2326 0029 Qing Wang (852) 2848 5220

Liquidity withdrawal rolled over into the second week: After a net withdrawal of Rmb101 billion the previous week, the PBoC drained another Rmb84 billion from the interbank market last week, reducing the year-to-date net liquidity injection to Rmb549 billion.

Withdrawal from bill issuance versus injection from repo sales: The PBoC issued Rmb130 billion of bills (Rmb23 billion of one-year bills last Tuesday, and Rmb22 billion of threemonth bills and Rmb85 billion of three-year bills last Thursday), marginally higher than the previous week's Rmb125 billion. The lighter redemption pressure (Rmb36 billion last week versus Rmb39 billion the previous week) resulted in net liquidity withdrawal of Rmb94 billion (versus Rmb86 billion the previous week) from bill issuance. Meanwhile, the PBoC sold Rmb40 billion of 91-day repo (versus Rmb50 billion the previous week). Of Rmb50 billion of matured repo, Rmb10 billion of net liquidity injection came from repo operations. In total, Rmb84 billion of net liquidity was drained by the PBoC last week. The reference yields of three-month, one-year and three-year PBoC bills remained unchanged at 1.57%, 2.093% and 2.65%, respectively. Largely bound by the reference yield of the three-month bill rate, the 91-day repo rate stayed constant at 1.57% as well.

Will SHIBOR rally on upcoming IPO? SHIBOR continued to soften last week, with the one-month rate sliding 12.6bp to 2.175%, a sign of restored market liquidity. China Everbright Bank announced that it was aiming to list on the Shanghai Stock Exchange in mid-August. However, given its much smaller scale of fundraising, we do not believe that any frozen subscription funds will be large enough to impact market liquidity significantly. We expect SHIBOR to continue to slide before gradually stabilising.

**What next:** We expect redemption pressure to ease further this week to Rmb58 billion. As such, net liquidity withdrawal should continue through the issuance of three-month and one-year bills without the help of repo sales.

Reiterating our rate call: Following our latest <u>China Inflation Tracker</u>, released today, we stand by our forecast that the CPI will peak in July or August and keep on softening down the road for the remainder of this year. Our call for a soft landing of the economy in 2010 under a Goldilocks scenario featuring relatively high growth and low CPI inflation remains valid. We expect no rate hikes in 2H10.

## Central Bank Watch

# India: Trade Deficit Moderates in June but Still High

Tanvee Gupta (91 22) 2209 7927 Chetan Ahya (65) 6834 6738

Export growth (in dollar terms) decelerated to 30.4%Y in June, compared with 35.1%Y in May 2010. On a seasonally adjusted sequential basis, exports (in dollar terms) were up 3%M (versus -3.7%M in May 2010). In rupee terms, export growth remained largely stable at 27.1%Y, compared with 27.5%Y in May. In other Asian countries, export growth (in dollar terms) decelerated to 37.2%Y in June, compared with 41.6%Y in the previous month.

Import growth decelerated sharply, in part due to the base effect: Import growth (in dollar terms) decelerated to 23%Y in June compared with 38.5% in the previous month. On a seasonally adjusted sequential basis, imports (in dollar terms) were up 4.5%M (versus -5.2%M in May). In rupee terms, import growth moderated to 19.9%Y, compared with 30.8%Y in May. Both oil and non-oil import growth (in dollar terms) decelerated to 26.6%Y and 21.5%Y in June (versus 66.7% and 32.3% in May).

Monthly trade deficit narrowed to US\$10.6 billion (9.2% of GDP annualised) in June, compared with US\$11.3 billion (10% of GDP annualised) in the previous month. The year-on-year growth in monthly trade deficit stood at 12.2% in June, compared with 43.8% in May.

Three-month trailing trade deficit still high: While the monthly trade deficit narrowed, the three-month trailing trade deficit widened sharply to 9.4% of GDP, annualised as of June 2010, from 8.7% in May and a trough of 4% as of March 2009. We believe that the trade deficit and current account deficit (at 4% of GDP, annualised during the quarter ended March 2010) have already widened to vulnerable levels even as the capex cycle is yet to pick up fully. Any decline in capital inflows or sharp rise in oil above US\$90/bbl would cause exchange rate depreciation – only adding to inflation pressure.

Need to maintain accelerated pace of rate hikes: We believe that loose fiscal and monetary policy has pushed growth above the near-term capacity, resulting in signs of strain in the form of a large trade deficit, rising inflation expectations and low deposit growth in the banking system causing a spike in short-term rates. In that context, the recent change in policy stance by the RBI to prioritise control of inflation is a step in the right direction, in our view. There is a need to maintain the accelerated pace of tightening over the next six months to manage these macro stability risks.

# **Korea: Exports Beat Expectations, Rate Hike Cycle to Continue**

Sharon Lam (852) 2848 8927 Jason Liu (852) 2848 6882

July exports beat our and consensus forecasts: Korea's exports increased by 29.6%Y in July, beating our forecast (28.5%) and consensus (27.4%). The lower year-on-year growth rate in July versus the previous two months (June: 30.1% and May: 40.3%) was due to diminishing low base effects, as Korea's exports rebounded strongly in 2H09. On a month-on-month basis, exports declined by 1.3% from June, but July is generally a slower month for production and shipment. Yet, we note that ship exports were particularly strong in July, at 85%Y (versus 28% in June). Exports to China, the US and Europe remain intact but the slowdown is seen in major commodity exports. Meanwhile, imports increased by 28.9%Y in July, lower than 38.2% in June and 49.1% in May, for similar base effect reasons. The trade surplus narrowed to US\$5.7 billion in July, from US\$6.4 billion in June, but nevertheless still much higher than the monthly average of US\$2.9 billion in 1H10. Korea's trade surplus has exceeded our expectation in recent months due to both resilient exports and softer-than-expected commodity prices.

Growth normalisation in place: If not for the exceptionally strong ship exports, Korea's July shipments would have normalised more noticeably. We have been bullish on Korea's export growth and we continue to think that Korea's exports will outperform those of its peer nations. Korea can gain market share by maintaining its competitiveness. Nonetheless, growth rates are likely to see a marked deceleration in 2H from the brisk growth in 1H due to the base effect, a gradual withdrawal of stimulus around the world, and less pent-up demand than in 2H09. We expect Korea's GDP growth to ease from 7.6% in 1H to 4.8% in 2H, although 4.8% is still considered slightly above trend.

Rate hike cycle to continue: Meanwhile, we believe that the interest rate hike cycle will continue and the central bank is likely to raise rates faster when the overall macro picture remains intact in the near term. We expect 50bp in hikes for the remainder of this year, with the next one likely to come in September. Yet, we do not rule out the possibility of a rate hike this month as Korea is indeed justified to catch up with the rate hike cycle. We think that the interest rate normalisation cycle is actually in favour of the economy, as it could help to adjust the misallocation of assets and push private investment in a more rational direction.

# Central Bank Watch

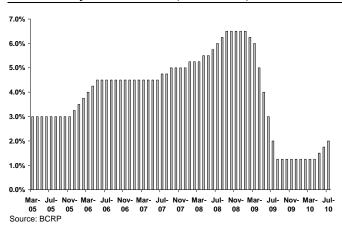
## **Peru: Monetary Policy Preview**

Daniel Volberg (1 212) 761 0124

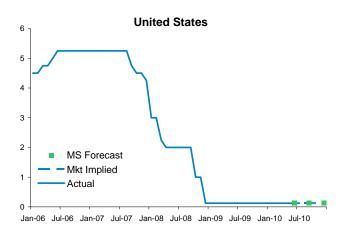
We expect tightening to continue: With economic growth significantly above potential and no signs of slowing yet, we expect the authorities to continue tightening monetary policy at the meeting on August 5.

While some of the tightening has been done via reserve requirement hikes, interest rates remain too low and need to be raised to slow growth to a more sustainable pace and thus maintain inflation within the 1-3% target range.

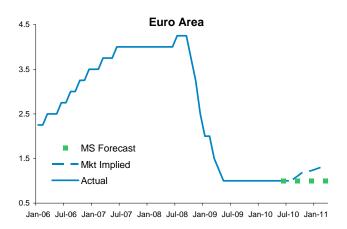
### Peru: Policy Interest Rate (annual rate)



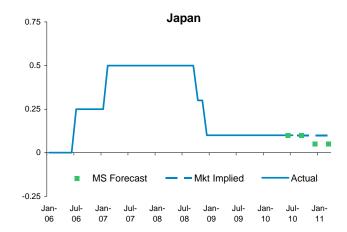
## Monetary Policy Outlook - Morgan Stanley versus Markets



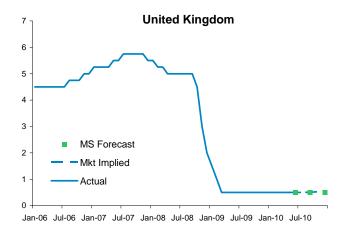
- We believe that core inflation has bottomed and a double-dip is a low risk.
- Fed clearly on hold for now, but we think that the market is too complacent about potential for a return to exit strategy in 2011.



- ECB to gradually reduce the maturity of its liquidity operations over the summer.
- We see the refi rate on hold for an extended period of time.



- We expect growth expectations to become more muted, and deflation to persist. Underlying prices are likely to remain below 0% until late 2013.
- We anticipate further easing ahead, and also revise our forecast of the exit from Jan-Mar 2012 to Oct-Dec.

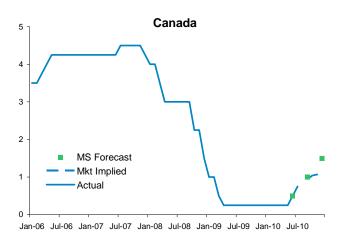


- We think that the MPC will start raising rates in early 2011.
   Markets seem to be pricing in a similar outcome.
- Fiscal policy decisions will likely complicate decisions on timing/pace.

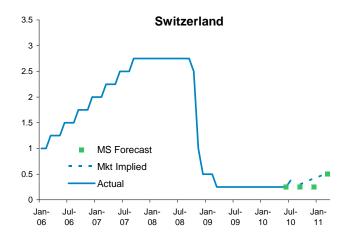
Source: National Central Banks, Morgan Stanley Research

Notes: (u) = unofficial target; Interest rate expectations are implied by overnight indexed swap (OIS) curves and may differ from those implied by other instruments; where adequate OIS data are not available, FRAs, foreign exchange swaps, and/or interbank cash rate futures are used; due to varying risk premia (such as liquidity, basis, credit, term, reserve management, calendar turns, etc.), these figures should be used as estimates only; where such instruments are not available, we have inserted our best guess of what markets expect based on consensus estimates.

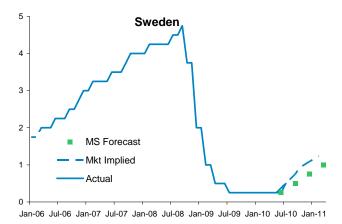
## Monetary Policy Outlook - Morgan Stanley versus Markets



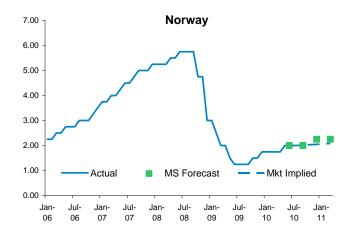
- The BoC is the first G7 bank to begin tightening. We expect a steady pace of hikes to take rates to 1.50% by year-end.
- The risks lie to both sides. On the upside, the BoC may speed up its tightening if there is further indication that domestic price pressures are heating up. On the downside, the uncertainty surrounding the global recovery may slow hikes.



 SNB starting to prepare stimulus withdrawal – we expect a first rate hike in 1Q11.



- Marked downside risks to the Riksbank's growth forecasts push first rate rise back into the autumn.
- Watching the dissenting votes on the Executive Board closely for indications of a shift in consensus.

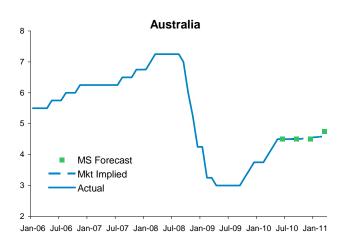


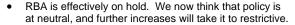
- Our forecast for this year's terminal rate is above market and Norges Bank expectations...
- ...implying downside risks to our forecast.

Source: National Central Banks, Morgan Stanley Research

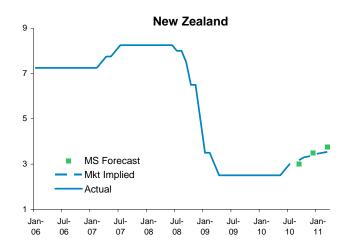
Notes: (u) = unofficial target; Interest rate expectations are implied by overnight indexed swap (OIS) curves and may differ from those implied by other instruments; where adequate OIS data are not available, FRAs, foreign exchange swaps, and/or interbank cash rate futures are used; due to varying risk premia (such as liquidity, basis, credit, term, reserve management, calendar turns, etc.), these figures should be used as estimates only; where such instruments are not available, we have inserted our best guess of what markets expect based on consensus estimates.

## Monetary Policy Outlook - Morgan Stanley versus Markets









- We're expecting 75bp of hikes for the rest of the year, with risks to the downside because of global risks.
- Market expectations are in line with our call.

Source: National Central Banks, Morgan Stanley Research

Notes: (u) = unofficial target; Interest rate expectations are implied by overnight indexed swap (OIS) curves and may differ from those implied by other instruments; where adequate OIS data are not available, FRAs, foreign exchange swaps, and/or interbank cash rate futures are used; due to varying risk premia (such as liquidity, basis, credit, term, reserve management, calendar turns, etc.), these figures should be used as estimates only; where such instruments are not available, we have inserted our best guess of what markets expect based on consensus estimates..

# **Global Monetary Policy Rate Forecasts**

Global Economics Team

	Current	3Q10	4Q10	1Q11	2Q11	3Q11	4Q11	Last change (bp)	Since peak/ trough (bp)	Since Dec 06 (bp)
Inited States	0.125	0.125	0.125	0.50	1.00	1.75	1.75	-87.5 (16/12/08)	-512.5	-512.5
uro Area	1.00	1.00	1.00	1.00	1.00	1.25	1.50	-25 (07/05/09)	-325	-200
apan	0.10	0.10	0.05	0.05	0.05	0.05	0.05	-20 (19/12/08)	-40	-40
Jnited Kingdom	0.50	0.50	0.50	1.00	1.50	1.75	2.00	-50 (05/03/09)	-525	-450
Canada	0.75	1.00	1.50	2.00	2.50	3.00	3.25	+25 (20/07/10)	50	-350
Switzerland	0.25	0.25	0.25	0.50	1.00	1.25	1.50	-50 (11/12/08)	-250	-175
Sweden	0.50	0.50	0.75	1.00	1.50	1.75	2.00	+25 (01/07/10)	25	-275
Norway	2.00	2.00	2.25	2.25	2.25	2.50	2.75	+25 (05/05/10)	75	-75
Australia	4.50	4.50	4.50	4.75	5.00	5.00	5.00	+25 (04/05/10)	150	-175
New Zealand	3.00	3.00	3.50	3.75	4.00	4.00	4.00	+25 (10/06/10)	-550	-450
Russia	7.75	7.75	7.75	8.00	8.25	8.50	8.50	-25 (31/05/10)	-525	-325
Poland	3.50	3.75	4.00	4.25	4.50	4.50	4.50	-25 (24/06/09)	-250	-50
Czech Republic	0.75	0.75	0.75	0.75	1.00	1.25	1.50	-25 (06/05/10)	-300	-175
lungary	5.25	5.25	5.25	5.25	5.25	5.50	5.75	-25 (26/04/10)	-625	-275
Romania	6.25	6.25	6.25	6.25	6.25	6.50	6.75	-25 (05/05/10)	-400	-250
Turkey	6.50	6.50	6.50	7.25	8.00	8.50	9.00	-25 (19/11/09)	-1,100	-1,100
srael	1.75	1.75	2.00	2.25	2.75	3.25	3.50	+25 (28/03/10)	100	-300
JAE	1.00	1.00	1.00	1.00	1.50	2.00	2.50	-50 (28/01/09)	-425	-425
South Africa	6.50	6.50	6.50	6.50	7.00	7.50	7.50	-50 (25/03/10)	-550	-250
China	5.31	5.31	5.31	5.31	5.31	5.31	5.31	-27 (23/12/08)	-216	-81
ndia	5.75	6.00	6.25	6.75	7.00	7.25	7.50	+25 (27/07/10)	-325	-150
long Kong	0.50	0.50	0.50	1.00	2.00	2.50	3.00	-100 (17/12/08)	-625	-625
S. Korea	2.25	2.50	2.75	3.00	3.25	3.50	3.75	+25 (09/07/10)	-300	-225
<b>Faiwan</b>	1.38	1.50	1.63	1.75	1.88	2.00	2.13	+12.5 (24/06/10)	-226	-138
Singapore	0.55	0.60	0.60	0.80	1.00	1.30	1.30	-	-	-
ndonesia	6.50	6.75	7.50	7.50	7.50	7.50	7.50	-25 (03/08/09)	-300	-325
Malaysia	2.75	3.00	3.00	3.00	3.00	3.00	3.00	+25 (08/07/10)	-75	-75
Thailand	1.50	1.75	2.25	2.75	2.75	2.75	2.75	+25 (14/07/10)	-225	-350
Brazil	10.75	11.00	11.00	12.00	12.50	12.50	12.50	+50 (21/07/10)	200	-300
Mexico	4.50	4.50	4.50	4.75	5.50	6.00	6.00	-25 (17/07/09)	-375	-250
Peru	2.00	2.50	3.25	4.00	4.75	5.00	5.00	+25 (10/06/10)	-500	-500
Colombia	3.00	3.00	4.25	5.75	6.25	6.50	6.50	-50 (30/04/10)	-700	-600
Blobal Policy Rate	2.2	2.2	2.3	2.5	2.8	3.0	3.1			
std. deviation	2.8	2.7	2.7	2.8	2.8	2.8	2.8			
# countries above	16	16	17	18	17	17	18			
# countries below	16	16	15	14	15	15	14			
G10 Policy Rate	0.6	0.6	0.6	0.8	1.1	1.5	1.6			
std. deviation	1.4	1.4	1.4	1.4	1.4	1.4	1.4			
# countries above	4	4	5	6	5	6	6			
# countries below	5	5	4	3	4	3	3			

# countries below | 5 | 5 4 |
Source: National Central Banks, Morgan Stanley Research
Note: Global policy rates are GDP weighted averages of national policy rates

## **Global GDP and Inflation Forecasts**

		GDP			CPI	
	2009E	2010E	2011E	2009E	2010E	2011E
GLOBAL	-0.9	4.7	4.2	2.0	3.3	3.4
G10	-3.5	2.6	2.2	0.0	1.5	2.0
United States	-2.6	3.3	3.2	-0.3	1.8	2.4
Euro Area	-4.1	1.2	1.1	0.3	1.7	2.1
Germany	-5.0	1.9	1.3	0.3	1.2	1.7
France	-2.5	1.3	1.4	0.1	1.7	1.9
Italy	-5.0	0.9	1.1	0.8	1.3	1.8
Spain	-3.6	-0.9	0.4	-0.3	1.5	1.8
Japan	-5.2	3.4	1.5	-1.3	-1.0	-0.1
United Kingdom	-4.9	1.4	1.3	2.2	3.1	2.5
Canada	-2.5	3.7	3.2	0.3	2.0	1.8
Sweden	-5.3	3.4	2.3	-0.3	1.2	1.9
Australia	1.3	2.8	3.9	1.8	2.6	2.4
Emerging Markets	2.1	7.2	6.4	4.3	5.3	5.0
CEEMEA	-5.4	4.0	3.4	8.0	5.7	6.1
Russia	-7.9	5.5	3.5	11.7	6.7	8.8
Poland	1.7	3.2	3.4	3.5	2.3	2.5
Czech Republic	-4.1	1.8	2.4	1.0	1.5	1.9
Hungary	-6.3	1.3	2.3	4.2	4.4	3.1
Romania	-7.1	-1.3	2.1	5.6	4.5	4.3
Ukraine	-15.1	3.5	3.5	16.0	10.0	10.0
Turkey	-4.7	5.0	4.0	6.3	8.6	5.9
Israel	0.7	4.0	3.8	3.3	2.5	2.7
UAE	-4.9	0.8	2.5	1.7	0.4	1.5
South Africa	-1.8	3.5	4.0	7.2	4.6	5.1
Asia ex Japan	5.9	8.7	8.1	2.4	4.7	3.9
China	8.7	10.0	9.5	-0.7	2.8	3.0
India	6.4	8.5	8.4	10.8	11.3	6.7
Hong Kong	-2.7	4.5	3.5	0.5	2.8	2.5
Korea	0.2	6.0	4.5	2.8	3.1	3.2
Taiwan	-1.9	4.5	3.6	-0.9	1.0	2.0
Singapore	-2.0	16.0	6.0	0.6	2.6	2.8
Indonesia	4.6	6.0	6.5	4.8	5.0	5.7
Malaysia	-1.7	6.5	5.0	0.6	1.7	1.9
Thailand	-2.3	5.8	4.8	-0.8	3.8	3.0
Latin America	-2.0	5.4	3.7	6.5	7.0	7.5
Brazil	-0.2	7.9	4.0	4.9	5.3	5.7
Mexico	-6.5	5.2	4.0	5.3	4.8	3.5
Peru	0.9	7.0	6.4	2.9	1.5	2.4
Colombia	0.4	4.1	3.8	4.2	2.8	4.4
Argentina	0.9	4.6	2.4	7.7	10.5	10.7
Venezuela	-3.3	-6.2	-1.2	28.0	34.5	43.5

Source: National Statistics Offices, IMF, Morgan Stanley Research estimates
Note: Figures in parenthesis indicate the country's or region's weight (in %) in global GDP, using PPPs.

## **Global Economics Team**

Richard Berner & Joachim Fels, Co-heads of Global Economics

Jaachim Fels   Global   Jaachim Fels @morganstanley.com   +44 (0)20 7425 5138	Global Fixed Income Eco	<u>onomics</u>		
Spyros Andreopoulos         Global         Spyros Andreopoulos@morganstanley.com         +44 (0)20 7677 0528           Americas         Fichard Berner         US         Richard.Berner@morganstanley.com         +1 212 761 3398           David Greenlaw         US         David.Greenlaw@morganstanley.com         +1 212 761 7157           Ted Wieseman         US         Ted.Wieseman@morganstanley.com         +1 212 761 7157           David Cho         US         David.Cho@morganstanley.com         +1 212 761 6910           Gray Newman         Latam, Brazil         Gray.Newman@morganstanley.com         +1 212 761 6910           Luis Arcentales         Chile, Mexico         Luis.Arcentales@morganstanley.com         +1 212 761 4913           Daniel Volberg@morganstanley.com         +1 212 761 4913         Paniel Volberg@morganstanley.com         +1 212 761 4913           Eluropa & South Africa         Euro Area, ECB, Germany         Elga.Bartsch@morganstanley.com         +44 (0)20 7425 5434           Daniele Antonucci         Italy, Spain         Daniele Antonucci@morganstanley.com         +44 (0)20 7425 5434           Melanie Baker         UK         Melanie Baker @morganstanley.com         +44 (0)20 7425 6820           Ceth Sleeman         UK         Cath. Sleeman@morganstanley.com         +44 (0)20 7677 8118           Mohamed Jaber         MENA	Joachim Fels	Global	Joachim.Fels@morganstanley.com	+44 (0)20 7425 6138
Americas         Richard Berner         US         Richard Berner@morganstanley.com         ±1 212 761 3398           David Greenlaw         US         David Greenlaw@morganstanley.com         ±1 212 761 7157           Ted Wisseman         US         Ted Wisseman@morganstanley.com         ±1 212 761 9098           Gray Newman         Latam, Brazil         Gray Newman@morganstanley.com         ±1 212 761 9098           Gray Newman         Latam, Brazil         Gray Newman@morganstanley.com         ±1 212 761 6510           Luis Arcentales         Chile, Mexico         Luis Arcentales@morganstanley.com         ±1 212 761 1913           Daniel Volberg         Argentina         Daniel Volberg@morganstanley.com         ±1 212 761 1913           Euro Area, ECB, Germany         Elga Bartsch         Euro Area, ECB, Germany         Elga Bartsch @morganstanley.com         ±44 (0)20 7425 5434           Daniele Antonucci         Italy, Spain         Daniele Antonucc@morganstanley.com         ±44 (0)20 7425 8943           Melanie Baker         UK         Melanie Baker@morganstanley.com         ±44 (0)20 7425 8943           Melanie Baker         UK         Cath. Sleeman@morganstanley.com         ±44 (0)20 7425 8943           Tevlik Aksoy         Turkey, MENA         Tevlik. Aksoy@morganstanley.com         ±44 (0)20 7677 8189           Pasquate Diana	Manoj Pradhan	Global	Manoj.Pradhan@morganstanley.com	+44 (0)20 7425 3805
Richard Berner	Spyros Andreopoulos	Global	Spyros.Andreopoulos@morganstanley.com	+44 (0)20 7677 0528
Richard Berner         US         Richard Berner @morganstanley.com         +1 212 761 3398           David Greenlaw         US         David.Greenlaw@morganstanley.com         +1 212 761 7157           Ted Wieseman         US         Ted.Wieseman@morganstanley.com         +1 212 761 3407           David Cho         US         David.Cho@morganstanley.com         +1 212 761 9098           Gray Newman         Latam, Brazil         Gray.Newman@morganstanley.com         +1 212 761 6510           Luis Arcentales         Chile, Mexico         Luis.Arcentales @morganstanley.com         +1 212 761 9088           Daniel Volberg         Argentina         Daniel.Volberg@morganstanley.com         +1 212 761 0124           Euroba & South Africa         Furope & South Africa         Bartsch         Buro Area, ECB, Germany         Elga.Bartsch@morganstanley.com         +44 (0)20 7425 5434           Daniele Antonucci         Italy, Spain         Daniele Antonucci@morganstanley.com         +44 (0)20 7425 5434           Melanie Baker         UK         Melanie.Baker@morganstanley.com         +44 (0)20 7425 5434           Zerbylik Aksoy         Turkey, MENA         Tevfik Aksoy@morganstanley.com         +44 (0)20 7425 1820           Tevfik Aksoy         Turkey, MENA         Tevfik Aksoy@morganstanley.com         +44 (0)20 7677 8189           Pasquale Diana				
David Greenlaw         US         David Greenlaw@morganstanley.com         +1 212 761 7157           Ted Wieseman         US         Ted Wieseman@morganstanley.com         +1 212 761 3407           David Cho         US         David Cho@morganstanley.com         +1 212 761 9080           Gray Newman         Latam, Brazil         Gray.Newman@morganstanley.com         +1 212 761 6510           Luis Arcentales         Chile, Mexico         Luis.Arcentales@morganstanley.com         +1 212 761 4913           Daniel Volberg         Argentina         Daniel.Volberg@morganstanley.com         +1 212 761 1024           Europe & South Africa           Elga Bartsch         Euro Area, ECB, Germany         Eiga.Bartsch@morganstanley.com         +44 (0)20 7425 8434           Daniele Antonucci         Italy, Spain         Daniele Antonucci@morganstanley.com         +44 (0)20 7425 8434           Melanie Baker         UK         Melanie.Baker@morganstanley.com         +44 (0)20 7425 8434           Melanie Baker         UK         Cath.Sleeman@morganstanley.com         +44 (0)20 7425 8607           Cath Sleeman         UK         Cath.Sleeman@morganstanley.com         +44 (0)20 7425 8607           Tevflik Aksoy         Turkey, MENA         Turkey ikasow@morganstanley.com         +44 (0)20 7677 8183           Pasquale Diana         Polan	<u>Americas</u>			
Ted Wieseman         US         Ted.Wieseman@morganstanley.com         +1 212 761 3407           David Cho         US         David.Cho@morganstanley.com         +1 212 761 0908           Gray Newman         Latam, Brazil         Gray.Newman@morganstanley.com         +1 212 761 6510           Luis Arcentales         Chile, Mexico         Luis.Arcentales@morganstanley.com         +1 212 761 1913           Daniel Volberg         Argentina         Daniel Volberg@morganstanley.com         +1 212 761 1912           Europe & South Africa           Elga Bartsch         Euro Area, ECB, Germany         Elga.Bartsch@morganstanley.com         +44 (0)20 7425 5434           Daniele Antonucci         Italy, Spain         Daniele.Antonucci@morganstanley.com         +44 (0)20 7425 8807           Cath Sleeman         UK         Melanie.Baker @morganstanley.com         +44 (0)20 7425 8807           Tevfik Aksoy         Turkey, MENA         Tevfik.Aksoy@morganstanley.com         +44 (0)20 7677 6917           Mohamed Jaber         MENA         Melanie.Baker@morganstanley.com         +44 (0)20 7677 6917           Mohamed Jaber         MENA         Melania.Bayaara.Bayaara.Bayaara.Bayaara.Dana.Beroganstanley.com         +44 (0)20 7677 6819           Alina Slyusarchuk         Rusayaara.Bayaara.Bayaara.Bayaara.Bayaara.Bayaara.Bayaara.Bayaara.Bayaara.Bayaara.Bayaara.Bayaara.Bayaara.Bayaara.Bayaa	Richard Berner	US	Richard.Berner@morganstanley.com	+1 212 761 3398
David Cho         US         David.Cho@morganstanley.com         +1 212 761 0908           Gray Newman         Latam, Brazil         Gray.Newman@morganstanley.com         +1 212 761 6510           Luis Arcentales         Chile, Mexico         Luis.Arcentales@morganstanley.com         +1 212 761 4913           Daniel Volberg         Argentina         Daniel.Volberg@morganstanley.com         +1 212 761 0124           Europe & South Africa           Elga Bartsch         Euro Area, ECB, Germany         Elga.Bartsch@morganstanley.com         +44 (0)20 7425 5434           Daniele Antonucci         Italy, Spain         Daniele Antonucci@morganstanley.com         +44 (0)20 7425 8943           Melanie Baker         UK         Melanie Baker@morganstanley.com         +44 (0)20 7425 8943           Melanie Baker         UK         Gath, Sleeman@morganstanley.com         +44 (0)20 7425 8943           Tevfik Aksoy         Turkey, MENA         Tevfik.Aksoy@morganstanley.com         +44 (0)20 7677 6917           Mohamed Jaber         MENA         Mehamed.Jaber@morganstanley.com         +44 (0)20 7677 6917           Pasquale Diana         Poland, Hungary, Czech, Romania         Pasquale.Diana@morganstanley.com         +44 (0)20 7677 6189           Pasquale Kafe         South Africa         Andrea.Masia demorganstanley.com         +27 11 507 0891	David Greenlaw	US	David.Greenlaw@morganstanley.com	+1 212 761 7157
Gray Newman Latam, Brazil Gray Newman@morganstanley.com +1 212 761 6510 Luis Arcentales Chile, Mexico Luis.Arcentales@morganstanley.com +1 212 761 4913 Daniel Volberg Argentina Daniel Volberg@morganstanley.com +1 212 761 4913  Europe & South Africa  Elga Bartsch Euro Area, ECB, Germany Elga.Bartsch@morganstanley.com +44 (0)20 7425 5434 Daniele Antonucci Italy, Spain Daniele.Antonucci@morganstanley.com +44 (0)20 7425 8943 Melanie Baker UK Melanie.Baker@morganstanley.com +44 (0)20 7425 8607 Cath Sleeman UK Cath.Sleeman@morganstanley.com +44 (0)20 7425 8607 Tevfik Aksoy Turkey, MENA Ferfik.Aksov@morganstanley.com +44 (0)20 7425 8807 Tevfik Aksoy Turkey, MENA Ferfik.Aksov@morganstanley.com +44 (0)20 7677 6917 Mohamed Jaber Memorganstanley.com +44 (0)20 7677 6917 Mohamed Jaber Memorganstanley.com +44 (0)20 7677 8189 Pasquale Diana Poland, Hungary, Czech, Romania Pasquale Diana@morganstanley.com +44 (0)20 7677 8183 Michael Kafe South Africa, Nigeria Michael.Kafe@morganstanley.com +27 11 507 0891 Andrea Masia South Africa Alina.Slyusarchuk Russia, Kazakhstan, Ukraine, Baltics Alina.Slyusarchuk@morganstanley.com +44 (0)20 7677 6869 Asia Pasqualeh Diana Papan Robert.Tokyo.Feldman@morganstanley.com +81 3 5424 5387 Takeshir Osato Japan Takeshir.Osato@morganstanley.com +81 3 5424 5387 Takeshir Yamaguchi Japan Robert.Tokyo.Feldman@morganstanley.com +81 3 5424 5387 Takeshir Yamaguchi Japan Takeshir.Sato@morganstanley.com +81 3 5424 5387 Takeshir Yamaguchi Japan Takeshir.Sato@morganstanley.com +81 3 5424 5387 Takeshir Yamaguchi Japan Takeshir.Sato@morganstanley.com +852 2848 5201 Denise Yam China, Hong Kong Denise Yam China, Hong Kong Denise Yam China, Hong Kong Steven.Zhang@morganstanley.com +852 2848 5301 Sharon.Lam@morganstanley.com +852 2848 5301 Sharon.Lam@morganstanley.com +852 2848 5820 China, Hong Kong Steven.Zhang@morganstanley.com +852 2848 6882 Chetan Ahya Asia ex-Japan, India Chetan.Ahya@morganstanley.com +65 6834 6738 Deyi Tan Worganstanley.com +65 6834 6738 Deyi Tan Worganstanley.com +65 6834 6703	Ted Wieseman	US	Ted.Wieseman@morganstanley.com	+1 212 761 3407
Luis Arcentales Daniel VolbergChile, Mexico ArgentinaLuis.Arcentales@morganstanley.com+1 212 761 4913Europe & South AfricaEuro Area, ECB, GermanyElga.Bartsch@morganstanley.com+44 (0)20 7425 5434Elga BartschEuro Area, ECB, GermanyElga.Bartsch@morganstanley.com+44 (0)20 7425 5434Daniele Antonucci Italy, SpainDaniele.Antonucci@morganstanley.com+44 (0)20 7425 8607Cath SleemanUKMelanie.Baker@morganstanley.com+44 (0)20 7425 8607Cath SleemanUKCath.Sleeman@morganstanley.com+44 (0)20 7425 1820Tevfik AksoyTurkey, MENATevfik.Aksoy@morganstanley.com+44 (0)20 7677 6917Mohamed JaberMENAMohamed.Jaber@morganstanley.com+44 (0)20 7677 8187Mohamed JaberMENAMohamed.Jaber@morganstanley.com+44 (0)20 7677 8187Michael KafeSouth Africa, NigeriaMichael.Kafe@morganstanley.com+27 11 507 0891Andrea MasiaSouth AfricaAndrea.Masia@morganstanley.com+27 11 507 0887Alina SlyusarchukRussia, Kazakhstan, Ukraine, BalticsAlina.Slyusarchuk@morganstanley.com+27 11 507 0887AsiaAirina Slyusarchuk@morganstanley.com+81 3 5424 5385Takehiro SatoJapanRobert.Tokyo.Feldman@morganstanleymufq.com+81 3 5424 5386Takehiro SatoJapanTakehiro.Sato@morganstanleymufq.com+81 3 5424 5387Ging WangGreater ChinaQing.Wang@morganstanley.com+81 3 5424 5387Oling WangGreater ChinaQing.Wang@morganstanley.com+852 2848 5220 <th< td=""><td>David Cho</td><td>US</td><td>David.Cho@morganstanley.com</td><td>+1 212 761 0908</td></th<>	David Cho	US	David.Cho@morganstanley.com	+1 212 761 0908
Daniel VolbergArgentinaDaniel. Volberg@morganstanlev.com+1 212 761 0124Europe & South AfricaElga Bartsch@morganstanlev.com+44 (0)20 7425 5434Elga BartschEuro Area, ECB, GermanyElga.Bartsch@morganstanlev.com+44 (0)20 7425 5434Daniele AntonucciItaly, SpainDaniele.Antonucci@morganstanlev.com+44 (0)20 7425 8893Melanie BakerUKMelanie.Baker@morganstanlev.com+44 (0)20 7425 8807Cath SleemaUKCath.Sleeman@morganstanlev.com+44 (0)20 7677 6917Wolk AssoyTurkey, MENATevfik.Aksoy@morganstanlev.com+44 (0)20 7677 6917Mohamed JaberMENAMohamed.Jaber@morganstanlev.com+44 (0)20 7677 6917Mohamed JaberMENAMohamed.Jaber@morganstanlev.com+44 (0)20 7677 8189Pasquale DianaPoland, Hungary, Czech, RomaniaPasquale.Diana@morganstanlev.com+44 (0)20 7677 8189Andrea MasiaSouth AfricaAndrea.Masia@morganstanlev.com+27 11 507 0891Alina SlyusarchukRussia, Kazakhstan, Ukraine, BalticsAlina.Slyusarchuk@morganstanlev.com+27 11 507 0891AsiaRobert FeldmanJapanRobert.Tokyo.Feldman@morganstanlev.com+81 3 5424 5385Takeshi YamaguchiJapanRobert.Tokyo.Feldman@morganstanley.com+81 3 5424 5387Takeshi YamaguchiJapanTakeshi.Yamaguchi@morganstanley.com+81 3 5424 5387Denise YamChina, Hong KongDenise Yam@morganstanley.com+852 2848 5301Sharon LamKorea, TaiwanSharon.Lam@morganstanley.com+852 2848 6892<	Gray Newman	Latam, Brazil	Gray.Newman@morganstanley.com	+1 212 761 6510
Europe & South Africa         Euro Area, ECB, Germany         Elga Bartsch@morganstanley.com         +44 (0)20 7425 5434           Daniele Antonucci         Italy, Spain         Daniele.Antonucci@morganstanley.com         +44 (0)20 7425 8943           Melanie Baker         UK         Melanie.Baker@morganstanley.com         +44 (0)20 7425 8607           Cath Sleeman         UK         Cath.Sleeman@morganstanley.com         +44 (0)20 7627 807           Tevfik Aksoy         Turkey, MENA         Tevfik.Aksoy@morganstanley.com         +44 (0)20 7677 8189           Mohamed Jaber         MENA         Mohamed.Jaber@morganstanley.com         +44 (0)20 7677 8189           Pasquale Diana         Poland, Hungary, Czech, Romania         Pasquale.Diana@morganstanley.com         +44 (0)20 7677 8189           Pasquale Diana         Poland, Hungary, Czech, Romania         Pasquale.Diana@morganstanley.com         +44 (0)20 7677 8189           Pasquale Diana         Poland, Hungary, Czech, Romania         Pasquale.Diana@morganstanley.com         +44 (0)20 7677 8189           Pasquale Diana         Poland, Hungary, Czech, Romania         Pasquale.Diana@morganstanley.com         +44 (0)20 7677 8189           Pasquale Diana         Poland, Hungary, Czech, Romania         Pasquale.Diana@morganstanley.com         +42 (0)20 7677 8189           Alina Slyusarchuk         Robert Feldman         Alina.Slyusarchuk@morganstanley	Luis Arcentales	Chile, Mexico	Luis.Arcentales@morganstanley.com	+1 212 761 4913
Elga Bartsch         Euro Area, ECB, Germany         Elga, Bartsch@morganstanley.com         +44 (0)20 7425 5434           Daniele Antonucci         Italy, Spain         Daniele.Antonucci@morganstanley.com         +44 (0)20 7425 8943           Melanie Baker         UK         Melanie.Baker@morganstanley.com         +44 (0)20 7425 8867           Cath Sleeman         UK         Cath.Sleeman@morganstanley.com         +44 (0)20 7425 1820           Tevfik Aksoy         Turkey, MENA         Tevfik.Aksoy@morganstanley.com         +44 (0)20 7677 6917           Mohamed Jaber         MENA         Mohamed.Jaber@morganstanley.com         +44 (0)20 7677 8189           Pasquale Diana         Poland, Hungary, Czech, Romania         Pasquale.Diana@morganstanley.com         +44 (0)20 7677 8189           Pasquale Diana         Poland, Hungary, Czech, Romania         Pasquale.Diana@morganstanley.com         +44 (0)20 7677 8189           Pasquale Diana         Poland, Hungary, Czech, Romania         Pasquale.Diana@morganstanley.com         +27 11 507 0891           Andrea Masia         South Africa         Andrea.Masia@morganstanley.com         +27 11 507 0887           Alina Slyusarchuk         Russia, Kazakhstan, Ukraine, Baltics         Alina.Slyusarchuk@morganstanley.com         +81 3 5424 5385           Takehiro Sato         Japan         Takehiro.Sato@morganstanley.com         +81 3 5424 5387 </td <td>Daniel Volberg</td> <td>Argentina</td> <td>Daniel.Volberg@morganstanley.com</td> <td>+1 212 761 0124</td>	Daniel Volberg	Argentina	Daniel.Volberg@morganstanley.com	+1 212 761 0124
Elga Bartsch         Euro Area, ECB, Germany         Elga, Bartsch@morganstanley.com         +44 (0)20 7425 5434           Daniele Antonucci         Italy, Spain         Daniele.Antonucci@morganstanley.com         +44 (0)20 7425 8943           Melanie Baker         UK         Melanie.Baker@morganstanley.com         +44 (0)20 7425 8867           Cath Sleeman         UK         Cath.Sleeman@morganstanley.com         +44 (0)20 7425 1820           Tevfik Aksoy         Turkey, MENA         Tevfik.Aksoy@morganstanley.com         +44 (0)20 7677 6917           Mohamed Jaber         MENA         Mohamed.Jaber@morganstanley.com         +44 (0)20 7677 8189           Pasquale Diana         Poland, Hungary, Czech, Romania         Pasquale.Diana@morganstanley.com         +44 (0)20 7677 8189           Pasquale Diana         Poland, Hungary, Czech, Romania         Pasquale.Diana@morganstanley.com         +44 (0)20 7677 8189           Pasquale Diana         Poland, Hungary, Czech, Romania         Pasquale.Diana@morganstanley.com         +27 11 507 0891           Andrea Masia         South Africa         Andrea.Masia@morganstanley.com         +27 11 507 0887           Alina Slyusarchuk         Russia, Kazakhstan, Ukraine, Baltics         Alina.Slyusarchuk@morganstanley.com         +81 3 5424 5385           Takehiro Sato         Japan         Takehiro.Sato@morganstanley.com         +81 3 5424 5387 </td <td>Europe &amp; South Africa</td> <td></td> <td></td> <td></td>	Europe & South Africa			
Daniele Antonucci Italy, Spain Daniele.Antonucci@morganstanley.com +44 (0)20 7425 8943 Melanie Baker UK Melanie.Baker@morganstanley.com +44 (0)20 7425 8607 Cath Sleeman UK Cath.Sleeman@morganstanley.com +44 (0)20 7425 1820 Tevfik Aksoy Turkey, MENA Tevfik.Aksoy@morganstanley.com +44 (0)20 7677 6917 Mohamed Jaber MENA Mohamed.Jaber@morganstanley.com +44 (0)20 7677 8189 Pasquale Diana Poland, Hungary, Czech, Romania Pasquale.Diana@morganstanley.com +44 (0)20 7677 8183 Michael Kafe South Africa, Nigeria Michael.Kafe@morganstanley.com +27 11 507 0891 Andrea Masia South Africa Andrea.Masia@morganstanley.com +27 11 507 0897 Alina Slyusarchuk Russia, Kazakhstan, Ukraine, Baltics Alina.Slyusarchuk@morganstanley.com +27 11 507 0887 Alina Slyusarchuk Russia, Kazakhstan, Ukraine, Baltics Alina.Slyusarchuk@morganstanley.com +44 (0)20 7677 6869 Asia Robert Feldman Japan Robert.Tokyo.Feldman@morganstanleymufg.com +81 3 5424 5385 Takehiro Sato Japan Takehiro.Sato@morganstanleymufg.com +81 3 5424 5367 Takeshi Yamaguchi Japan Takehiro.Sato@morganstanleymufg.com +81 3 5424 5387 Cling Wang Greater China Qing.Wang@morganstanleymufg.com +85 2 2848 5220 Denise Yam China, Hong Kong Denise.Yam@morganstanley.com +852 2848 5301 Sharon Lam Korea, Taiwan Sharon.Lam@morganstanley.com +85 2 2848 8927 Steven Zhang China, Hong Kong Steven.Zhang@morganstanley.com +85 2 239 7818 Jason Liu Korea, Taiwan Jason.JL.Liu@morganstanley.com +852 2848 6882 Chetan Ahya Asia ex-Japan, India Chetan.Ahya@morganstanley.com +65 6834 6703		Furo Area, FCB, Germany	Flga Bartsch@morganstanley.com	+44 (0)20 7425 5434
Melanie Baker UK Melanie Baker@morganstanley.com +44 (0)20 7425 8607 Cath Sleeman UK Cath.Sleeman@morganstanley.com +44 (0)20 7425 1820 Tevfik Aksoy Turkey, MENA Tevfik.Aksoy@morganstanley.com +44 (0)20 7677 6917 Mohamed Jaber MENA Mohamed.Jaber@morganstanley.com +44 (0)20 7677 8189 Pasquale Diana Poland, Hungary, Czech, Romania Pasquale.Diana@morganstanley.com +44 (0)20 7677 4183 Michael Kafe South Africa, Nigeria Michael.Kafe@morganstanley.com +27 11 507 0891 Andrea Masia South Africa Andrea.Masia@morganstanley.com +27 11 507 0887 Alina Slyusarchuk Russia, Kazakhstan, Ukraine, Baltics Alina.Slyusarchuk@morganstanley.com +24 (0)20 7677 6869  Asia  Robert Feldman Japan Robert.Tokyo.Feldman@morganstanleymufq.com +81 3 5424 5385 Takehiro Sato Japan Takehiro.Sato@morganstanleymufq.com +81 3 5424 5367 Takeshi Yamaguchi Japan Takeshi.Yamaguchi@morganstanleymufq.com +81 3 5424 5387  Qing Wang Greater China Qing.Wang@morganstanley.com +852 2848 5220 Denise Yam China, Hong Kong Denise.Yam@morganstanley.com +852 2848 5301 Sharon Lam Korea, Taiwan Sharon.Lam@morganstanley.com +852 2848 68927 Steven Zhang China, Hong Kong Ernest.Ho@morganstanley.com +852 2299 7818 Jason Liu Korea, Taiwan Jason.JL.Liu@morganstanley.com +852 2848 6882  Chetan Ahya Asia ex-Japan, India Chetan.Ahya@morganstanley.com +65 6834 6703	•	•		` '
Cath Sleeman UK Cath Sleeman@morganstanley.com +44 (0)20 7425 1820 Tevfik Aksoy Turkey, MENA Tevfik.Aksoy@morganstanley.com +44 (0)20 7677 6917 Mohamed Jaber MENA Mohamed.Jaber@morganstanley.com +44 (0)20 7677 6917 Mohamed Jaber MENA Mohamed.Jaber@morganstanley.com +44 (0)20 7677 8189 Pasquale Diana Poland, Hungary, Czech, Romania Pasquale.Diana@morganstanley.com +44 (0)20 7677 4183 Michael Kafe South Africa, Nigeria Michael.Kafe@morganstanley.com +27 11 507 0887 Alina Slyusarchuk Russia, Kazakhstan, Ukraine, Baltics Alina.Slyusarchuk@morganstanley.com +27 11 507 0887 Alina Slyusarchuk Russia, Kazakhstan, Ukraine, Baltics Alina.Slyusarchuk@morganstanley.com +44 (0)20 7677 6869  Asia Robert Feldman Japan Robert.Tokyo.Feldman@morganstanleymufg.com +81 3 5424 5385 Takehiro Sato Japan Takehiro.Sato@morganstanleymufg.com +81 3 5424 5387 Takeshi Yamaguchi Japan Takeshi.Yamaguchi@morganstanleymufg.com +81 3 5424 5387 Qing Wang Greater China Qing.Wang@morganstanley.com +852 2848 5220 Denise Yam China, Hong Kong Denise.Yam@morganstanley.com +852 2848 5301 Sharon Lam Korea, Taiwan Sharon.Lam@morganstanley.com +852 2848 8927 Steven Zhang China, Hong Kong Steven.Zhang@morganstanley.com +852 2239 7818 Jason Liu Korea, Taiwan Jason.JL.Liu@morganstanley.com +852 2848 6882 Chetan Ahya Asia ex-Japan, India Chetan.Ahya@morganstanley.com +65 6834 6738 Deyi Tan Singapore, Malaysia Deyi.Tan@morganstanley.com +65 6834 6703		• •		` '
Tevfik Aksoy Turkey, MENA Tevfik.Aksoy@morganstanley.com +44 (0)20 7677 6917 Mohamed Jaber MENA Mohamed.Jaber@morganstanley.com +44 (0)20 7677 8189 Pasquale Diana Poland, Hungary, Czech, Romania Pasquale.Diana@morganstanley.com +44 (0)20 7677 8189 Pasquale Diana Poland, Hungary, Czech, Romania Pasquale.Diana@morganstanley.com +44 (0)20 7677 4183 Michael Kafe South Africa, Nigeria Michael.Kafe@morganstanley.com +27 11 507 0891 Andrea Masia South Africa Andrea.Masia@morganstanley.com +27 11 507 0887 Alina Slyusarchuk Russia, Kazakhstan, Ukraine, Baltics Alina.Slyusarchuk@morganstanley.com +44 (0)20 7677 6869 Pasia Pasi				` '
Mohamed JaberMENAMohamed Jaber@morganstanley.com+44 (0)20 7677 8189Pasquale DianaPoland, Hungary, Czech, RomaniaPasquale.Diana@morganstanley.com+44 (0)20 7677 8189Michael KafeSouth Africa, NigeriaMichael.Kafe@morganstanley.com+27 11 507 0891Andrea MasiaSouth AfricaAndrea.Masia@morganstanley.com+27 11 507 0887Alina SlyusarchukRussia, Kazakhstan, Ukraine, BalticsAlina.Slyusarchuk@morganstanley.com+44 (0)20 7677 6869AsiaRobert FeldmanJapanRobert.Tokyo.Feldman@morganstanleymufg.com+81 3 5424 5385Takehiro SatoJapanTakehiro.Sato@morganstanleymufg.com+81 3 5424 5367Takeshi YamaguchiJapanTakeshi.Yamaguchi@morganstanleymufg.com+81 3 5424 5387Qing WangGreater ChinaQing.Wang@morganstanley.com+852 2848 5220Denise YamChina, Hong KongDenise.Yam@morganstanley.com+852 2848 5301Sharon LamKorea, TaiwanSharon.Lam@morganstanley.com+852 2848 8927Steven ZhangChina, Hong KongSteven.Zhang@morganstanley.com+86 21 2326 0015Ernest HoChina, Hong KongErnest.Ho@morganstanley.com+852 2848 6882Chetan AhyaAsia ex-Japan, IndiaChetan.Ahya@morganstanley.com+65 6834 6738Deyi TanSingapore, MalaysiaDeyi.Tan@morganstanley.com+65 6834 6703				` '
Michael KafeSouth Africa, NigeriaMichael.Kafe@morganstanley.com+27 11 507 0891Andrea MasiaSouth AfricaAndrea.Masia@morganstanley.com+27 11 507 0887Alina SlyusarchukRussia, Kazakhstan, Ukraine, BalticsAlina.Slyusarchuk@morganstanley.com+44 (0)20 7677 6869AsiaRobert FeldmanJapanRobert.Tokyo.Feldman@morganstanleymufg.com+81 3 5424 5385Takehiro SatoJapanTakehiro.Sato@morganstanleymufg.com+81 3 5424 5367Takeshi YamaguchiJapanTakeshi.Yamaquchi@morganstanleymufg.com+81 3 5424 5387Qing WangGreater ChinaQing.Wang@morganstanley.com+852 2848 5220Denise YamChina, Hong KongDenise.Yam@morganstanley.com+852 2848 5301Sharon LamKorea, TaiwanSharon.Lam@morganstanley.com+852 2848 8927Steven ZhangChina, Hong KongSteven.Zhang@morganstanley.com+86 21 2326 0015Ernest HoChina, Hong KongErnest.Ho@morganstanley.com+852 2239 7818Jason LiuKorea, TaiwanJason.JL.Liu@morganstanley.com+852 2848 6882Chetan AhyaAsia ex-Japan, IndiaChetan.Ahya@morganstanley.com+65 6834 6738Deyi TanSingapore, MalaysiaDeyi.Tan@morganstanley.com+65 6834 6703	,			` '
Michael KafeSouth Africa, NigeriaMichael.Kafe@morganstanley.com+27 11 507 0891Andrea MasiaSouth AfricaAndrea.Masia@morganstanley.com+27 11 507 0887Alina SlyusarchukRussia, Kazakhstan, Ukraine, BalticsAlina.Slyusarchuk@morganstanley.com+44 (0)20 7677 6869AsiaRobert FeldmanJapanRobert.Tokyo.Feldman@morganstanleymufg.com+81 3 5424 5385Takehiro SatoJapanTakehiro.Sato@morganstanleymufg.com+81 3 5424 5367Takeshi YamaguchiJapanTakeshi.Yamaquchi@morganstanleymufg.com+81 3 5424 5387Qing WangGreater ChinaQing.Wang@morganstanley.com+852 2848 5220Denise YamChina, Hong KongDenise.Yam@morganstanley.com+852 2848 5301Sharon LamKorea, TaiwanSharon.Lam@morganstanley.com+852 2848 8927Steven ZhangChina, Hong KongSteven.Zhang@morganstanley.com+86 21 2326 0015Ernest HoChina, Hong KongErnest.Ho@morganstanley.com+852 2239 7818Jason LiuKorea, TaiwanJason.JL.Liu@morganstanley.com+852 2848 6882Chetan AhyaAsia ex-Japan, IndiaChetan.Ahya@morganstanley.com+65 6834 6738Deyi TanSingapore, MalaysiaDeyi.Tan@morganstanley.com+65 6834 6703	Pasquale Diana	Poland, Hungary, Czech, Romania	Pasquale.Diana@morganstanley.com	+44 (0)20 7677 4183
Alina Slyusarchuk Russia, Kazakhstan, Ukraine, Baltics Alina.Slyusarchuk@morganstanley.com +44 (0)20 7677 6869  Asia  Robert Feldman Japan Robert.Tokyo.Feldman@morganstanleymufg.com +81 3 5424 5385 Takehiro Sato Japan Takehiro.Sato@morganstanleymufg.com +81 3 5424 5367 Takeshi Yamaguchi Japan Takeshi.Yamaguchi@morganstanleymufg.com +81 3 5424 5387  Qing Wang Greater China Qing.Wang@morganstanley.com +852 2848 5220 Denise Yam China, Hong Kong Denise.Yam@morganstanley.com +852 2848 5301 Sharon Lam Korea, Taiwan Sharon.Lam@morganstanley.com +852 2848 8927 Steven Zhang China, Hong Kong Steven.Zhang@morganstanley.com +86 21 2326 0015 Ernest Ho China, Hong Kong Ernest.Ho@morganstanley.com +852 2239 7818 Jason Liu Korea, Taiwan Jason.JL.Liu@morganstanley.com +852 2848 6882  Chetan Ahya Asia ex-Japan, India Chetan.Ahya@morganstanley.com +65 6834 6703		South Africa, Nigeria	Michael.Kafe@morganstanley.com	+27 11 507 0891
AsiaRobert FeldmanJapanRobert.Tokyo.Feldman@morganstanleymufg.com+81 3 5424 5385Takehiro SatoJapanTakehiro.Sato@morganstanleymufg.com+81 3 5424 5367Takeshi YamaguchiJapanTakeshi.Yamaguchi@morganstanleymufg.com+81 3 5424 5387Qing WangGreater ChinaQing.Wang@morganstanley.com+852 2848 5220Denise YamChina, Hong KongDenise.Yam@morganstanley.com+852 2848 5301Sharon LamKorea, TaiwanSharon.Lam@morganstanley.com+852 2848 8927Steven ZhangChina, Hong KongSteven.Zhang@morganstanley.com+86 21 2326 0015Ernest HoChina, Hong KongErnest.Ho@morganstanley.com+852 2239 7818Jason LiuKorea, TaiwanJason.JL.Liu@morganstanley.com+852 2848 6882Chetan AhyaAsia ex-Japan, IndiaChetan.Ahya@morganstanley.com+65 6834 6738Deyi TanSingapore, MalaysiaDeyi.Tan@morganstanley.com+65 6834 6703	Andrea Masia	South Africa	Andrea.Masia@morganstanley.com	+27 11 507 0887
Robert FeldmanJapanRobert.Tokyo.Feldman@morganstanleymufg.com+81 3 5424 5385Takehiro SatoJapanTakehiro.Sato@morganstanleymufg.com+81 3 5424 5367Takeshi YamaguchiJapanTakeshi.Yamaguchi@morganstanleymufg.com+81 3 5424 5387Qing WangGreater ChinaQing.Wang@morganstanley.com+852 2848 5220Denise YamChina, Hong KongDenise.Yam@morganstanley.com+852 2848 5301Sharon LamKorea, TaiwanSharon.Lam@morganstanley.com+852 2848 8927Steven ZhangChina, Hong KongSteven.Zhang@morganstanley.com+86 21 2326 0015Ernest HoChina, Hong KongErnest.Ho@morganstanley.com+852 2239 7818Jason LiuKorea, TaiwanJason.JL.Liu@morganstanley.com+852 2848 6882Chetan AhyaAsia ex-Japan, IndiaChetan.Ahya@morganstanley.com+65 6834 6738Deyi TanSingapore, MalaysiaDeyi.Tan@morganstanley.com+65 6834 6703	Alina Slyusarchuk	Russia, Kazakhstan, Ukraine, Baltics	Alina.Slyusarchuk@morganstanley.com	+44 (0)20 7677 6869
Robert FeldmanJapanRobert.Tokyo.Feldman@morganstanleymufg.com+81 3 5424 5385Takehiro SatoJapanTakehiro.Sato@morganstanleymufg.com+81 3 5424 5367Takeshi YamaguchiJapanTakeshi.Yamaguchi@morganstanleymufg.com+81 3 5424 5387Qing WangGreater ChinaQing.Wang@morganstanley.com+852 2848 5220Denise YamChina, Hong KongDenise.Yam@morganstanley.com+852 2848 5301Sharon LamKorea, TaiwanSharon.Lam@morganstanley.com+852 2848 8927Steven ZhangChina, Hong KongSteven.Zhang@morganstanley.com+86 21 2326 0015Ernest HoChina, Hong KongErnest.Ho@morganstanley.com+852 2239 7818Jason LiuKorea, TaiwanJason.JL.Liu@morganstanley.com+852 2848 6882Chetan AhyaAsia ex-Japan, IndiaChetan.Ahya@morganstanley.com+65 6834 6738Deyi TanSingapore, MalaysiaDeyi.Tan@morganstanley.com+65 6834 6703	Asia			
Takehiro SatoJapanTakehiro.Sato@morganstanleymufg.com+81 3 5424 5367Takeshi YamaguchiJapanTakeshi.Yamaguchi@morganstanleymufg.com+81 3 5424 5387Qing WangGreater ChinaQing.Wang@morganstanley.com+852 2848 5220Denise YamChina, Hong KongDenise.Yam@morganstanley.com+852 2848 5301Sharon LamKorea, TaiwanSharon.Lam@morganstanley.com+852 2848 8927Steven ZhangChina, Hong KongSteven.Zhang@morganstanley.com+86 21 2326 0015Ernest HoChina, Hong KongErnest.Ho@morganstanley.com+852 2239 7818Jason LiuKorea, TaiwanJason.JL.Liu@morganstanley.com+852 2848 6882Chetan AhyaAsia ex-Japan, IndiaChetan.Ahya@morganstanley.com+65 6834 6738Deyi TanSingapore, MalaysiaDeyi.Tan@morganstanley.com+65 6834 6703		Japan	Robert.Tokyo.Feldman@morganstanleymufg.com	+81 3 5424 5385
Takeshi Yamaguchi Japan Takeshi.Yamaguchi@morganstanleymufg.com +81 3 5424 5387  Qing Wang Greater China Qing.Wang@morganstanley.com +852 2848 5220  Denise Yam China, Hong Kong Denise.Yam@morganstanley.com +852 2848 5301  Sharon Lam Korea, Taiwan Sharon.Lam@morganstanley.com +852 2848 8927  Steven Zhang China, Hong Kong Steven.Zhang@morganstanley.com +86 21 2326 0015  Ernest Ho China, Hong Kong Ernest.Ho@morganstanley.com +852 2239 7818  Jason Liu Korea, Taiwan Jason.JL.Liu@morganstanley.com +852 2848 6882  Chetan Ahya Asia ex-Japan, India Chetan.Ahya@morganstanley.com +65 6834 6738  Deyi Tan Singapore, Malaysia Deyi.Tan@morganstanley.com +65 6834 6703		•		
Denise YamChina, Hong KongDenise Yam@morganstanley.com+852 2848 5301Sharon LamKorea, TaiwanSharon.Lam@morganstanley.com+852 2848 8927Steven ZhangChina, Hong KongSteven.Zhang@morganstanley.com+86 21 2326 0015Ernest HoChina, Hong KongErnest.Ho@morganstanley.com+852 2239 7818Jason LiuKorea, TaiwanJason.JL.Liu@morganstanley.com+852 2848 6882Chetan AhyaAsia ex-Japan, IndiaChetan.Ahya@morganstanley.com+65 6834 6738Deyi TanSingapore, MalaysiaDeyi.Tan@morganstanley.com+65 6834 6703	Takeshi Yamaguchi	•		+81 3 5424 5387
Denise YamChina, Hong KongDenise Yam@morganstanley.com+852 2848 5301Sharon LamKorea, TaiwanSharon.Lam@morganstanley.com+852 2848 8927Steven ZhangChina, Hong KongSteven.Zhang@morganstanley.com+86 21 2326 0015Ernest HoChina, Hong KongErnest.Ho@morganstanley.com+852 2239 7818Jason LiuKorea, TaiwanJason.JL.Liu@morganstanley.com+852 2848 6882Chetan AhyaAsia ex-Japan, IndiaChetan.Ahya@morganstanley.com+65 6834 6738Deyi TanSingapore, MalaysiaDeyi.Tan@morganstanley.com+65 6834 6703	Qing Wang	Greater China	Qing.Wang@morganstanlev.com	+852 2848 5220
Sharon LamKorea, TaiwanSharon.Lam@morganstanley.com+852 2848 8927Steven ZhangChina, Hong KongSteven.Zhang@morganstanley.com+86 21 2326 0015Ernest HoChina, Hong KongErnest.Ho@morganstanley.com+852 2239 7818Jason LiuKorea, TaiwanJason.JL.Liu@morganstanley.com+852 2848 6882Chetan AhyaAsia ex-Japan, IndiaChetan.Ahya@morganstanley.com+65 6834 6738Deyi TanSingapore, MalaysiaDeyi.Tan@morganstanley.com+65 6834 6703				
Steven ZhangChina, Hong KongSteven.Zhang@morganstanley.com+86 21 2326 0015Ernest HoChina, Hong KongErnest.Ho@morganstanley.com+852 2239 7818Jason LiuKorea, TaiwanJason.JL.Liu@morganstanley.com+852 2848 6882Chetan AhyaAsia ex-Japan, IndiaChetan.Ahya@morganstanley.com+65 6834 6738Deyi TanSingapore, MalaysiaDeyi.Tan@morganstanley.com+65 6834 6703				
Ernest Ho China, Hong Kong Ernest.Ho@morganstanely.com +852 2239 7818  Jason Liu Korea, Taiwan Jason.JL.Liu@morganstanley.com +852 2848 6882  Chetan Ahya Asia ex-Japan, India Chetan.Ahya@morganstanley.com +65 6834 6738  Deyi Tan Singapore, Malaysia Deyi.Tan@morganstanley.com +65 6834 6703				
Jason LiuKorea, TaiwanJason.JL.Liu@morganstanley.com+852 2848 6882Chetan AhyaAsia ex-Japan, IndiaChetan.Ahya@morganstanley.com+65 6834 6738Deyi TanSingapore, MalaysiaDeyi.Tan@morganstanley.com+65 6834 6703	ŭ			
Deyi Tan Singapore, Malaysia <u>Deyi.Tan@morganstanley.com</u> +65 6834 6703			-	
Deyi Tan Singapore, Malaysia <u>Deyi.Tan@morganstanley.com</u> +65 6834 6703	Chetan Ahva	Asia ex-Japan, India	Chetan Ahya @ morganstanley.com	+65 6834 6738
	•	• •	-	
	•			
Tanvee Gupta India Tanvee.Gupta@morganstanley.com +91 22 2209 7927	ŭ			

## **Disclosure Section**

The information and opinions in Morgan Stanley Research were prepared or are disseminated by Morgan Stanley & Co. Incorporated and/or Morgan Stanley C.T.V.M. S.A. and/or Morgan Stanley & Co. International plc and/or RMB Morgan Stanley (Proprietary) Limited and/or Morgan Stanley MUFG Securities, Co., Ltd. and/or Morgan Stanley Asia Limited and/or Morgan Stanley Asia (Singapore) Pte. (Registration number 199206298Z) and/or Morgan Stanley Asia (Singapore) Securities Pte Ltd (Registration number 200008434H) and/or Morgan Stanley Taiwan Limited and/or Morgan Stanley & Co International plc, Seoul Branch, and/or Morgan Stanley Australia Limited (A.B.N. 67 003 734 576, holder of Australian financial services license No. 233742, which accepts responsibility for its contents), and/or Morgan Stanley Smith Barney Australia Pty Ltd (A.B.N. 19 009 145 555, holder of Australian financial services license No. 240813, which accepts responsibility for its contents), and/or Morgan Stanley India Company Private Limited and their affiliates (collectively, "Morgan Stanley").

For important disclosures, stock price charts and equity rating histories regarding companies that are the subject of this report, please see the Morgan Stanley Research Disclosure Website at www.morganstanley.com/researchdisclosures, or contact your investment representative or Morgan Stanley Research Conflict Management Policy

Global Research Conflict Management Policy

### **Global Research Conflict Management Policy**

Morgan Stanley Research observes our conflict management policy, available at www.morganstanley.com/institutional/research/conflictpolicies.

### Important Disclosure for Morgan Stanley Smith Barney LLC Customers

The subject matter in this Morgan Stanley report may also be covered in a similar report from Citigroup Global Markets Inc. Ask your Financial Advisor or use Research Center to view any reports in addition to this report.

### Important Disclosures

Morgan Stanley Research does not provide individually tailored investment advice. Morgan Stanley Research has been prepared without regard to the circumstances and objectives of those who receive it. Morgan Stanley recommends that investors independently evaluate particular investments and strategies, and encourages investors to seek the advice of a financial adviser. The appropriateness of an investment or strategy will depend on an investor's circumstances and objectives. Morgan Stanley Research is not an offer to buy or sell any security/instrument or participate in any trading strategy. The value of and income from your investments may vary because of changes in interest rates, foreign exchange rates, default rates, prepayment rates, securities/instruments prices market indexes, operational or financial conditions of companies or other factors. Past performance is not necessarily a guide to future performance. Estimates of future performance are based on assumptions that may not be realized.

With the exception of information regarding Morgan Stanley, Morgan Stanley Research is based on public information. Morgan Stanley makes every effort to use reliable, comprehensive information, but we do not represent that it is accurate or complete. We have no obligation to tell you when opinions or information in Morgan Stanley Research change apart from when we intend to discontinue equity research coverage of a company. Facts and views in Morgan Stanley Research have not been reviewed by, and may not reflect information known to, professionals in other Morgan Stanley business areas, including investment banking personnel. Morgan Stanley may make investment decisions or take proprietary positions that are inconsistent with the recommendations or views in this report.

To our readers in Taiwan: Morgan Stanley Research is distributed by Morgan Stanley Taiwan Limited; it may not be distributed to or quoted or used by the public media without the express written consent of Morgan Stanley. To our readers in Hong Kong: Information is distributed in Hong Kong by and on behalf of, and is attributable to, Morgan Stanley Asia Limited as part of its regulated activities in Hong Kong; if you have any queries concerning it, contact our Hong Kong sales representatives.

Morgan Stanley Asia Limited as part of its regulated activities in Hong Kong; if you have any queries concerning it, contact our Hong Kong sales representatives.

Morgan Stanley Research is disseminated in Japan by Morgan Stanley MUFG Securities, Co., Ltd.; in Canada by Morgan Stanley Canada Limited, which has approved of and takes responsibility for its contents in Canada; in Germany by Morgan Stanley Bank AG, Frankfurt am Main, regulated by Bundesanstalt fuer Finanzdienstleistungsaufsicht (BaFin);in Spain by Morgan Stanley, S.V., S.A., a Morgan Stanley group company, supervised by the Spanish Securities Markets Commission(CNMV), which states that it is written and distributed in accordance with rules of conduct for financial research under Spanish regulations; in the US by Morgan Stanley & Co. Incorporated, which accepts responsibility for its contents. Morgan Stanley & Co. International plc, authorized and regulated by the Financial Services and Markets Act 2000, research prepared by any affiliates. Morgan Stanley Private Wealth Management Limited, authorized and regulated by the Financial Services Authority, also disseminates Morgan Stanley Research in the UK. Private UK investors should obtain the advice of their Morgan Stanley & Co. International plc or Morgan Stanley Private Wealth Management representative about the investments concerned. RMB Morgan Stanley (Proprietary) Limited is a member of the JSE Limited and regulated by the Financial Services Board in South Africa. RMB Morgan Stanley (Proprietary) Limited is a joint venture owned equally by Morgan Stanley International Holdings Inc. and RMB Investment Advisory (Proprietary) Limited, which is wholly owned by FirstRand Limited.

Trademarks and service marks in Morgan Stanley Research are their owners' property. Third-party data providers make no warranties or representations of the accuracy, completeness, or timeliness of their data and shall not have liability for any damages relating to such data. The Global Industry Classification Standard (GICS) was developed by and is the exclusive property of MSCI and S&P. Morgan Stanley bases projections, opinions, forecasts and trading strategies regarding the MSCI Country Index Series solely on public information. MSCI has not reviewed, approved or endorsed these projections, opinions, forecasts and trading strategies. Morgan Stanley has no influence on or control over MSCI's index compilation decisions. Morgan Stanley Research or portions of it may not be reprinted, sold or redistributed without the written consent of Morgan Stanley. Morgan Stanley research is disseminated and available primarily electronically, and, in some cases, in printed form Additional information on recommended securities/instruments is available on request.

The information in Morgan Stanley Research is being communicated by Morgan Stanley & Co. International plc (DIFC Branch), regulated by the Dubai Financial Services Authority (the DFSA), and is directed at Professional Clients only, as defined by the DFSA. The financial products or financial services to which this research relates will only be made available to a customer who we are satisfied meets the regulatory criteria to be a Professional Client.

The information in Morgan Stanley Research is being communicated by Morgan Stanley & Co. International plc (QFC Branch), regulated by the Qatar Financial Centre Regulatory Authority (the QFCRA), and is directed at business customers and market counterparties only and is not intended for Retail Customers as defined by the

As required by the Capital Markets Board of Turkey, investment information, comments and recommendations stated here, are not within the scope of investment advisory activity. Investment advisory service is provided in accordance with a contract of engagement on investment advisory concluded between brokerage houses, portfolio management companies, non-deposit banks and clients. Comments and recommendations stated here rely on the individual opinions of the ones providing these comments and recommendations. These opinions may not fit to your financial status, risk and return preferences. For this reason, to make an investment decision by relying solely to this information stated here may not bring about outcomes that fit your expectations.

# Morgan Stanley

### MORGAN STANLEY RESEARCH

The Americas 1585 Broadway New York, NY 10036-8293 United States Tel: +1 (1)212 761 4000 Europe 20 Bank Street, Canary Wharf London E14 4AD United Kingdom Tel: +44 (0)20 7425 8000 Japan 4-20-3, Ebisu, Shibuya-ku, Tokyo 150-6008, Japan Tel: +81 (0)3 5424 5000 Asia/Pacific

1 Austin Road West
Kowloon
Hong Kong
Tel: +852 2848 5200