J.P.Morgan

Global Asset Allocation
J.P. Morgan Chase Bank NA,
J.P. Morgan Securities Ltd.
June 29, 2012

The J.P. Morgan View

Mini-steps to Euro federalism

- **Asset Allocation** — Buy euro bank bonds as they benefit the most with the ECB as the new bank regulator and potential TARP money from the ESM.
- **Economics** — Q2 likely the weakest quarter this recovery, at 1.4%, but Q3 still looks like sub 2% for the world. UK growth is cut by 1/4% this year and next.
- **Fixed Income** — Long duration in EM, OW German Bunds cross-market.
- **Equities** — Near-term upside should benefit countries and sectors where positions are more depressed, i.e. Euro area equities and banks globally.
- **Credit** — Eurozone banks look to be the relative winner from the EU summit. We go long € financial bonds in the *GMOS* portfolio.
- **Foreign exchange** — Dollar moves into a range post the Brussels EI summit, but we retain a number of hedges against renewed euro weakness.
- **Commodities** — Hot weather in the US is pushing up corn and US gas prices.

- Risk assets are up on the week on **great expectations management** by the Europeans who had led the world to expect the worst from yesterday's EU Summit. In the end, the **EU stepped back from the brink.** Euro area leaders compromised on some of their disagreements in a manner that at least temporary eases the negative economic and financial dynamic, even as it not truly reverses them.

- **What did the EU Summit deliver?** Here is a top-level view. Our sister publications (*GDW, GFIMS*) provide more details. Overall, if 10 is what is needed to save EMU, and zero is where we started the week, then one could say we moved to 2 — a meaningful step, with many more to be taken, and a risk of sliding back when the details need to be filled in.

- We argued last week that the Summit ultimately needs to be judged on whether it moves the Euro area towards **fiscal and political federalism.** The Van Rompuy Report on a *Genuine Economic and Monetary Union* spells out a vision of the federalist end point, but received no agreement, besides an invitation to try again with more concrete proposals by October. Very little progress thus, except that the issue is now at least openly on the table.

- Some **progress towards federalism** was made by agreeing to a **single bank supervisor** under the ECB, to be implemented by year-end. The still future ESM would then be allowed to help recapitalize banks — a small move towards a much needed Euro-TARP. Also, a first step was taken towards dropping the seniority of official lending relative to the private sector in the case of the EFSF/ESM loan to Spain to recapitalize its banks. The subordination of private investors has been the main reason why official loans never stabilized the market. Northern EMU is not accepting this as a rule change, but one can argue that the cat is out of the bag.

- Equally important is that some steps are being taken towards ending the

The certifying analyst is indicated by an [AC]. See page 7 for analyst certification and important legal and regulatory disclosures.

Jan Loeys[AC]
(1-212) 834-5874
jan.loeys@jpmorgan.com

John Normand
(44-20) 7325-5222
john.normand@jpmorgan.com

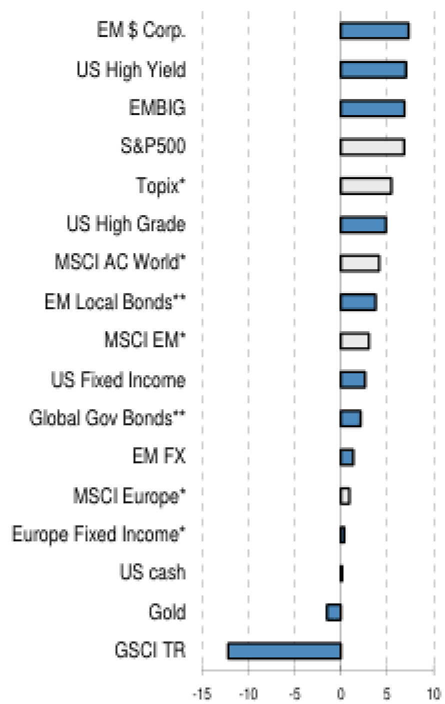
Nikolaos Panigirtzoglou
(44-20) 7777-0386
nikolaos.panigirtzoglou@jpmorgan.com

Seamus Mac Gorain
(44-20) 7777-2906
seamus.macgorain@jpmorgan.com

Matthew Lehmann
(44-20) 7134-7813
matthew.m.lehmann@jpmorgan.com

Leo Evans
(44-20) 7742-2537
leonard.a.evans@jpmorgan.com

YTD returns through Jun 28
%, equities are in lighter colour.



Source: J.P. Morgan, Bloomberg. Returns in USD. *Local currency. **Hedged into USD. Euro Fixed Income is Iboxx Overall Index. US HG, HY, EMBIG and EM $ Corp are JPM indices. EM FX is ELMI+ in $.

www.morganmarkets.com

fixation with austerity as the solution to the EMU crisis. The €120bn growth compact would appear too small to pull the region out of recession. Instead we note the agreement that the ESM can buy bonds without extra conditionally – – read "austerity" — beyond what all EMU members have to deliver already anyway. Yes, countries that have borrowed too much should cut back, but not all at the same time, please, as you then run into the Paradox of Thrift. This **Paradox of Austerity**, as we have renamed it, makes countries with funding problems cut spending and raise taxes, thus worsening tax revenues, their deficit and, in turn, funding access. Hence, the cry across Europe that austerity is not working. This minor change in conditionally is, by itself, not enough to reverse austerity, but, here again, a precedent is set and the cat is out of the bag.

- **What is missing?** The list is long, but to mention the important ones: For one, the ESM got a bigger mandate, but not more money. It will thus run out sooner. On the positive side, with a greater mandate, there is more reason than before to raise its capacity. In addition, the ECB does not yet get the signing up to fiscal union that is really needs to unleash QE and the SMP. But near term, the modest progress towards federalism provides some comfort to the ECB and should make it more willing to provide support. Finally, tensions are rising in the Euro area, with Germany feeling it has given up most, even as most economists would argue that Northern EMU's fixation with austerity, inflation risk, and joint bond issuance could doom the EMU project. The main risks for markets in coming weeks are thus efforts by Northern EMU to regain what it perceived it lost in Brussels.

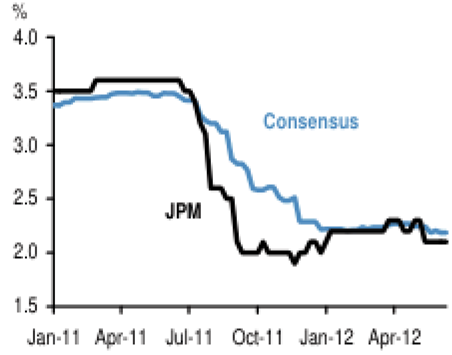
- **How long with the rally in risk assets last?** The last two weekends' attempts at providing support — Greek elections, EFSF funding for Spanish banks — bought less than a day's worth of rally in risk assets. This one should last a bit longer, as it achieved a lot more, but will likely over the next month run into resistance from weak economic data and some back sliding on the EMU summit as official haggle over the details.

- **Investment strategy.** We have been close to home with a defensive bias, focused on dollar longs, Cyclicals UWs, Europe UWs, and duration longs. Our main longs in risk are outright longs in corporate bonds and EM FX funded in euros. These produce good value and carry, and we believe fit neatly into the yield and carry focus of most investors. Notice how, despite huge macro uncertainty, our p. 1 YTD return chart neatly has zero-yielding assets (cash and commodities) at the bottom, while the top has high-yield, and EM corporates and sovereigns in USD. We like to **add risk through outright longs in euro bank bonds**, as their acquisition of the ECB as top regulator — one that also prints money — as well as the possibility that the ESM will be able to provide equity capital, are huge supports, in our view, even as neither the EMU crisis nor the European recession are over.

Fixed income

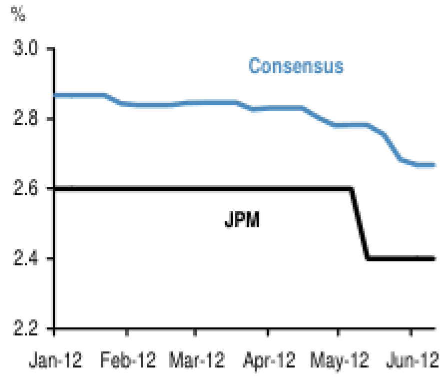
- The EU summit has brought the sharpest one-day rally of the year in Euro area peripheral bonds, albeit only reversing the underperformance earlier this week. The prospective recapitalisation of banks by the ESM, rather than their own sovereign, is an important step towards removing the banking sector tail risk that has dogged peripheral government bonds. This could materially shift the

2012 global GDP growth forecasts: JPMorgan and Consensus



Source: J.P. Morgan, Consensus Economics. Consensus Economics forecasts are for regions and countries that we averaged using the same 5-year rolling USD GDP weights that we use for our own global growth forecast.

2013 global GDP growth forecasts: JPMorgan and Consensus



Source: J.P. Morgan, Consensus Economics. Consensus Economics forecasts are for regions and countries that we averaged using the same 5-year rolling USD GDP weights that we use for our own global growth forecast.

More details in ...

Global Data Watch, Bruce Kasman and David Hensley

Global Markets Outlook and Strategy, Jan Loeys, Bruce Kasman, et al.

US Fixed Income Markets, Terry Belton and Srini Ramaswamy

Global Fixed Income Markets, Pavan Wadhwa and Fabio Bassi

Emerging Markets Outlook and Strategy, Joyce Chang

Key trades and risk: Emerging Market Equity Strategy, Adrian Mowat et al.

Flows and Liquidity, Nikos Panigirtzoglou et al.

debt trajectories of Ireland and Spain in particular. As yet, though, the full scope of ESM bank recaps is unclear, while the experience of past EU summits suggests a bumpy road to implementation. Against the backdrop of what remains a very difficult supply-demand balance, that keeps us **negative on peripheral bonds**.

- We have been inclined to oppose the recent cross-market underperformance of **German Bunds**, on the view that fears of debt socialisation in the near term are overblown. Even though Germany essentially acquiesced overnight to limited fiscal transfers with little extra conditionality in return, we hold to this view, expressed via longs on Bunds vs US Treasuries, and 5s/10s flatteners on the German curve. **In US Treasuries, we favour long end steepeners**, motivated by upcoming supply, elevated positions, and a shift in pension regulations.

- In keeping with the bullish tilt of our DM positions, we are **long duration in EM**. As in DM, weakening growth and loosening monetary policy bullets are supportive, and EM central banks have not run out of conventional monetary policy bullets. Meanwhile, modest outflows from local bond funds have turned to modest inflows in the past two weeks.

Equities

- Equities rebounded sharply following the results of the EU summit. We view the decisions made at the summit as positive for the near term, and we see **most upside on countries and sectors where positions are more depressed, i.e. Euro area equities and banks globally.** Open an OW in banks globally.

- The MSCI AC World Bank index is still down 12% from its March peak and not far from the bottom of its range seen last September. The decision to use the ESM for bank recaps is equivalent to a Euro TARP. The introduction of the US TARP post Lehman, led eventually to a bank rally but admittedly not immediately. Bank credit was a more immediate beneficiary than bank equities at the time.

- For investors willing to chase the rally, we believe the best way is via the **capitulation baskets** we described in the *JPMView* on June 15. Our delta one team constructed three baskets that are likely to benefit from a rebound in equity markets, one for each major region. The objective is to select stocks that underperformed the most over the past months, but possess high quality at the same time, i.e. they have high P/E, P/B and ROE.

- Each of the baskets contains 50 stocks with the highest combined factor rankings within their respective regional universe and can be found on Bloomberg under tickers JPUSCLNG (US basket), JPEUCLNG (Europe basket) and JPHACLNG (Asia Pacific basket). **Our European basket, JPEUCLNG, is up by 6% since June 15.**

Credit

- Whilst spreads were unchanged leading into the EU summit, its results bettered expectations and a strong risk rally followed today, particularly in those assets closest to the problem. The Summit does not pull Europe out of recession, but the move to a single bank regulator — the ECB — that also happens to control the printing press, and permitting the ESM to help recapitalise banks, should be major positives for bank credit. TARP was

More details in ...

EM Corporate Outlook and Strategy, Warren Mar et al.

US Credit Markets Outlook and Strategy, Eric Beinstein et al.

High Yield Credit Markets Weekly, Peter Acciavatti et al.

European Credit Outlook & Strategy, Steven Dulake et al.

Emerging Markets Cross Product Strategy Weekly, Eric Beinstein et al.

J.P.Morgan

followed by a sustained rally in US bank bonds and **we see this as an opportunity to go outright long liquid € financial bonds**. The combination of a safe asset and a risky asset — bunds + spread — offers good diversification for the end investor and is one major reason why spread product has been the best asset class so far this year (chart on p. 1).

- Given investor positioning towards European credit, our colleagues in European Credit Derivatives Strategy explored a number of ways to be long Europe vs US credit yesterday, through indices, curves, options and tranches (see Saul Doctor et al, *CD Player*). They saw room for a reversal of recent trends and today's outcomes appear to support their hypothesis.

Foreign Exchange

- Although Q3 begins with a potentially watershed EU summit agreement around banking union which presents the test case for fiscal union, the policy backdrop across Europe, the US and China looks more consistent with consolidation in currencies rather than a trend USD sell-off. European parliaments face a huge commitment test in coming months in approving debt mutualization; the US will only move closer to the edge of the fiscal cliff in the wake of a divisive Supreme Court ruling on Obama-care; and China's fiscal easing cycle may not lift activity data for another month or two. Forecasts are, therefore, unchanged but **risks are now definitely more balanced post-summit.** Target ranges: JPMQUSD 82-85, DXY 81-84, EUR/USD 1.22-1.27, AUD/USD 0.99 – 1.04 and VXY Global 9.5%-11%.

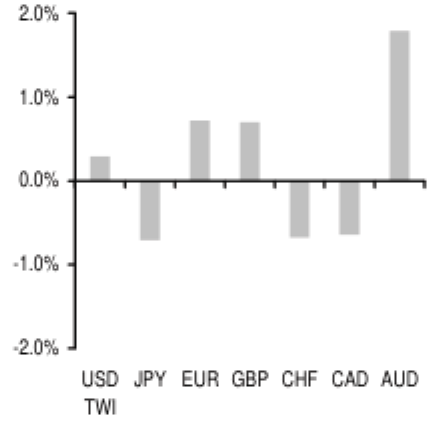
- In terms of trades, the EU leaders' summit has neutralised yet another near-term tail risk, but questions around willingness to pool sovereignty and debt still justify a **handful of hedges** (EUR/USD 1.25-1.20 put spread, bearish EUR/CHF seagull, long USD/CAD cash). Buy a 3-mo EUR/NOK range binary (7.382-7.6835) to capitalize on brief stability. Take profits on GBP/USD 1.55 at-expiry digital and focus sterling bearishness on the crosses (short GBP/NOK cash). Stopped out of short GBP/USD at a profit. Short EUR/SEK and EUR/NOK calls expired with small gains.

Commodities

- Commodities are up around 2% this week with agriculture the notable outperformer, up almost 9%. **Corn prices are now up 26% over the last two weeks** as very dry weather in the US has led to fears of lower yields. Conditions in key corn producing states have declined from "moderate" and "extreme" drought to "exceptional" drought. **Our corn crop conditions index has now had the second largest decline in more then two decades.** If weather conditions do not improve significantly in the coming days, and weather forecasts currently suggest that they will not, there is significant downside risk to our US corn yield estimate, and thus upside risk to our price forecasts. We await confirmation of yield damage before adjusting our forecasts (see *Agriculture Weekly*, Henri et al., Jun 28).

- **US natural gas is up another 4% this week,** as the same unusually hot weather that is affecting the corn crop is resulting in much higher gas demand. In the past week, close to a thousand temperature records were broken in cities across the US and the heat is forecast to continue. Additionally, we have seen a recent fall in gas production and the shutting of a nuclear power plant.

FX weekly change vs USD



Source: J.P. Morgan

More details in ...

FX Markets Weekly, John Normand *et al.*

Commodity Markets Outlook & Strategy, Colin Fenton et al.

Oil Markets Monthly, Fenton et al.

Daily Metals Note, Fenton et al.

Agriculture Weekly, Dietz et al.

Interest rates		Current	Sep-12	Dec-12	Mar-13	Jun-13	YTD Return*
United States	Fed funds rate	0.125	0.125	0.125	0.125	0.125	
	10-year yields	1.66	2.00	2.25	2.25	2.50	2.1%
Euro area	Refi rate	1.00	0.75	0.75	0.75	0.75	
	10-year yields	1.58	1.25	1.50	1.60	1.70	2.3%
United Kingdom	Repo rate	0.50	0.50	0.50	0.50	0.50	
	10-year yields	1.73	1.60	1.85	2.00	2.15	2.7%
Japan	Overnight call rate	0.05	0.05	0.05	0.05	0.05	
	10-year yields	0.83	0.85	0.95	0.95	0.95	1.5%
GBI-EM hedged in $	Yield - Global Diversified	6.14		6.50			3.8%

Credit Markets	Current	Index	YTD Return*
US high grade (bp over UST)	219	JPMorgan JULI Porfolio Spread to Treasury	4.9%
Euro high grade (bp over Euro gov)	284	iBoxx Euro Corporate Index	3.8%
USD high yield (bp vs. UST)	667	JPMorgan Global High Yield Index STW	7.0%
Euro high yield (bp over Euro gov)	937	iBoxx Euro HY Index	10.5%
EMBIG (bp vs. UST)	374	EMBI Global	6.9%
EM Corporates (bp vs. UST)	427	JPM EM Corporates (CEMBI)	7.3%

		Quarterly Averages					
Commodities	Current	12Q3	12Q4	13Q1	13Q2	GSCI Index	YTD Return*
Brent ($/bbl)	97	95	100	105	95	Energy	-17.1%
Gold ($/oz)	1600	1850	1875			Precious Metals	-1.5%
Copper ($/metric ton)	7392	8575	9000			Industrial Metals	-7.2%
Corn ($/Bu)	6.37	5.50	5.10	5.30	5.40	Agriculture	3.9%

Foreign Exchange	Current	Sep-12	Dec-12	Mar-13	Jun-13	3m cash index	YTD Return* in USD
EUR/USD	1.27	1.22	1.24	1.25	1.25	EUR	-3.4%
USD/JPY	79.9	80	78	80	80	JPY	2.8%
GBP/USD	1.57	1.54	1.56	1.56	1.56	GBP	0.6%
USD/BRL	2.02	1.98	1.95	1.95	1.95	BRL	-6.5%
USD/CNY	6.35	6.33	6.30	6.30	6.25	CNY	-0.4%
USD/KRW	1145	1200	1150	1140	1140	KRW	1.1%
USD/TRY	1.81	1.85	1.80	1.70	1.70	TRY	7.6%

Equities	Current	YTD Return (local ccy)
S&P	1356	6.8%
Nasdaq	2927	12.3%
Topix	770	5.4%
FTSE 100	5571	2.2%
MSCI Eurozone*	126	-0.8%
MSCI Europe*	1005	0.9%
MSCI EM $*	907	0.7%
Brazil Bovespa	54212	-5.3%
Hang Seng	19441	7.4%
Shanghai SE	2225	1.2%

*Levels/returns as of Jun 28, 2012

Local currency except MSCI EM $

Sector Allocation *	US YTD	Europe YTD	Japan YTD	EM YTD ($)
Energy	-5.3%	-7.3%	-11.3%	-8.9%
Materials	3.5%	-3.4%	-4.3%	-5.0%
Industrials	3.9%	0.7%	2.2%	**3.4%**
Discretionary	**10.9%**	**8.3%**	**10.3%**	-0.9%
Staples	6.6%	**5.4%**	**11.4%**	**5.5%**
Healthcare	**9.0%**	**6.1%**	**6.3%**	**9.8%**
Financials	**10.8%**	**1.1%**	**20.0%**	**2.8%**
Information Tech.	**9.7%**	-1.0%	-0.5%	**7.2%**
Telecommunications	**15.4%**	-3.0%	5.0%	**2.6%**
Utilities	4.2%	0.7%	-4.8%	**2.4%**
Overall	**6.8%**	**0.9%**	**5.4%**	**0.7%**

Source: Bloomberg, Datastream, IBES, Standard & Poor's Services, J.P. Morgan estimates

Global Economic Outlook Summary

	Real GDP % over a year ago			Real GDP % over previous period, saar							Consumer prices % over a year ago			
	2011	2012	2013	4Q11	1Q12	2Q12	3Q12	4Q12	1Q13	2Q13	4Q11	2Q12	4Q12	2Q13
The Americas														
United States	1.7	2.1	2.0	3.0	1.9	2.0	2.0	2.0	1.5	2.3	3.3	2.0	1.5	1.4
Canada	2.4	2.1	2.2	1.9	1.9	2.0	2.1	2.0	2.2	2.2	2.7	1.9	2.1	2.2
Latin America	4.2	3.3	3.8	2.5	3.6	2.9	3.7	3.7	3.9	3.9	7.2	6.2	6.2	6.9
Argentina	8.9	3.3	2.2	2.2	3.6	-4.5	8.0	6.0	0.0	1.5	9.6	10.0	10.0	11.0
Brazil	2.7	2.1	4.5	0.6	0.8	4.1	4.4	4.8	4.5	4.5	6.7	5.0	5.0	5.3
Chile	6.0	5.0	4.5	8.2	5.7	3.5	3.8	5.0	4.6	4.7	4.0	3.2	3.1	3.0
Colombia	5.9	3.5	4.5	5.1	1.1	2.2	3.0	3.5	5.0	6.0	3.9	3.6	3.3	3.0
Ecuador	7.8	4.0	4.0	4.1	2.0	3.5	4.0	4.0	4.0	4.0	5.5	5.1	4.2	4.0
Mexico	3.9	3.6	3.5	2.9	5.3	2.1	1.7	3.4	4.4	3.7	3.5	3.8	4.0	3.9
Peru	6.9	6.0	7.0	4.0	8.2	5.5	5.5	6.0	8.0	8.0	4.5	3.9	3.1	3.0
Venezuela	4.2	5.5	0.0	5.2	10.9	6.0	3.0	-6.0	-1.0	0.0	28.5	23.9	23.4	31.7
Asia/Pacific														
Japan	-0.7	2.5	1.2	0.1	4.7	1.6	1.0	0.8	1.0	1.2	-0.3	0.1	0.1	-0.1
Australia	2.1	3.2	2.8	2.5	5.3	1.3	1.6	2.4	4.4	3.3	3.1	1.0	1.5	2.2
New Zealand	1.3	2.9	2.7	1.8	4.7	2.1	3.7	3.0	0.9	3.4	1.8	1.1	2.4	2.7
Asia ex Japan	6.9	5.8	6.3	5.2	7.3	5.2	5.7	**6.0 ↑**	6.4	6.6	4.9	3.8	3.9	4.4
China	9.2	7.7	8.4	8.8	6.8	6.6	8.0	8.2	8.7	8.7	4.6	3.1	3.5	4.4
Hong Kong	5.0	1.9	3.6	1.6	1.6	3.0	3.5	3.5	3.0	3.5	5.7	4.3	3.8	3.7
India	6.5	6.0	6.5	8.3	5.8	6.3	5.8	5.6	6.2	6.5	8.4	7.8	8.1	8.4
Indonesia	6.5	5.0	3.7	8.8	4.8	4.0	3.0	3.0	3.5	4.5	4.1	4.5	3.9	3.4
Korea	3.6	2.9	3.5	1.3	3.5	2.5	3.5	3.5	3.5	3.5	4.0	2.6	2.9	3.5
Malaysia	5.1	3.0	2.5	5.7	5.1	1.0	0.0	1.0	2.0	4.0	3.2	1.7	1.1	1.1
Philippines	3.8	5.3	3.4	6.9	10.2	3.6	1.2	1.2	4.5	4.5	4.7	2.9	2.3	2.4
Singapore	4.9	2.8	**4.1 ↑**	-2.5	10.0	**2.0 ↓**	**-0.8 ↑**	**8.2 ↑**	**4.1 ↓**	**4.1 ↓**	5.5	5.2	**3.1 ↓**	**2.4 ↓**
Taiwan	4.0	1.5	4.2	-2.1	2.8	2.8	3.6	4.0	4.5	4.6	1.4	1.3	1.8	1.6
Thailand	0.1	3.5	2.3	-36.7	52.1	4.0	1.0	0.0	2.0	3.0	4.0	2.5	1.7	1.0
Africa/Middle East														
Israel	4.8	2.9	4.4	3.2	3.0	3.2	6.1	7.4	4.5	2.8	2.5	2.3	2.5	2.1
South Africa	3.1	2.5	3.6	3.2	2.7	2.4	3.5	4.5	3.7	3.2	6.1	6.1	6.0	5.8
Europe														
Euro area	1.5	-0.5	0.2	-1.3	0.0	-1.2	-1.0	0.0	0.5	0.5	2.9	2.4	2.1	1.6
Germany	3.1	0.9	1.2	-0.7	2.1	0.3	0.3	1.0	1.5	1.5	2.6	2.1	1.8	1.5
France	1.7	0.0	0.6	0.3	0.2	-1.0	-0.3	0.5	0.8	1.0	2.6	2.3	2.0	1.6
Italy	0.5	-2.2	-1.0	-2.6	-3.2	-2.5	-2.5	-1.3	-0.8	-0.5	3.7	3.5	3.8	3.4
Spain	0.7	-1.4	-0.8	-1.2	-1.3	-2.8	-2.8	-1.5	-0.5	0.5	2.7	1.9	1.5	1.0
United Kingdom	**0.8 ↑**	**-0.4 ↓**	**1.5 ↓**	**-1.4 ↓**	-1.3	**-1.8 ↓**	**2.0 ↓**	**0.5 ↓**	**1.5 ↓**	2.0	4.6	2.9	2.5	2.2
Emerging Europe	4.8	2.5	3.3	4.1	2.7	-0.9	2.5	2.9	3.3	3.2	6.4	4.9	5.5	5.9
Bulgaria	1.7	1.0	2.5	...	...	...	...	...	...	...	...	...	...	...
Czech Republic	1.7	-1.1	0.9	-0.7	-3.1	-1.3	0.2	0.9	1.5	-0.6	2.4	2.7	2.9	2.5
Hungary	1.6	-1.2	1.0	-0.1	-4.1	-1.3	-0.5	0.5	1.0	1.5	4.1	5.5	5.4	3.4
Poland	4.3	3.0	3.0	4.1	3.2	2.0	2.3	3.0	3.0	3.0	4.6	3.9	3.5	2.8
Romania	2.5	0.8	2.7	-1.0	-0.5	1.3	-0.4	2.8	2.5	3.0	3.4	3.3	4.4	4.0
Russia	4.3	3.6	3.4	5.9	4.6	-2.0	3.6	3.5	4.0	4.0	6.8	3.7	6.0	6.6
Turkey	8.5	2.5	4.5	...	...	...	...	...	...	...	9.2	9.0	6.8	8.8
Global	2.6	2.1	2.4	1.7	2.6	1.4	1.9	2.1	2.3	2.6	3.6	2.7	2.5	2.5
Developed markets	1.3	1.1	1.3	0.8	1.5	0.6	0.9	1.1	1.2	1.5	2.8	1.9	1.6	1.4
Emerging markets	5.8	4.5	5.0	4.3	5.5	3.6	4.7	4.9	5.2	5.3	5.7	4.6	4.8	5.3

Source: J.P. Morgan

J.P.Morgan

Analyst Certification: The research analyst(s) denoted by an "AC" on the cover of this report certifies (or, where multiple research analysts are primarily responsible for this report, the research analyst denoted by an "AC" on the cover or within the document individually certifies, with respect to each security or issuer that the research analyst covers in this research) that: (1) all of the views expressed in this report accurately reflect his or her personal views about any and all of the subject securities or issuers; and (2) no part of any of the research analyst's compensation was, is, or will be directly or indirectly related to the specific recommendations or views expressed by the research analyst(s) in this report.

Other Disclosures

J.P. Morgan ("JPM") is the global brand name for J.P. Morgan Securities LLC ("JPMS") and its affiliates worldwide. J.P. Morgan Cazenove is a marketing name for the U.K. investment banking businesses and EMEA cash equities and equity research businesses of JPMorgan Chase & Co. and its subsidiaries.

Options related research: If the information contained herein regards options related research, such information is available only to persons who have received the proper option risk disclosure documents. For a copy of the Option Clearing Corporation's Characteristics and Risks of Standardized Options, please contact your J.P. Morgan Representative or visit the OCC's website at http://www.optionsclearing.com/publications/risks/riskstoc.pdf

Legal Entities Disclosures
U.S.: JPMS is a member of NYSE, FINRA, SIPC and the NFA. JPMorgan Chase Bank, N.A. is a member of FDIC and is authorized and regulated in the UK by the Financial Services Authority. **U.K.:** J.P. Morgan Securities Ltd. (JPMSL) is a member of the London Stock Exchange and is authorized and regulated by the Financial Services Authority. Registered in England & Wales No. 2711006. Registered Office 125 London Wall, London EC2Y 5AJ. **South Africa:** J.P. Morgan Equities Limited is a member of the Johannesburg Securities Exchange and is regulated by the FSB. **Hong Kong:** J.P. Morgan Securities (Asia Pacific) Limited (CE number AAJ321) is regulated by the Hong Kong Monetary Authority and the Securities and Futures Commission in Hong Kong. **Korea:** J.P. Morgan Securities (Far East) Ltd, Seoul Branch, is regulated by the Korea Financial Supervisory Service. **Australia:** J.P. Morgan Australia Limited (ABN 52 002 888 011/AFS Licence No: 238188) is regulated by ASIC and J.P. Morgan Securities Australia Limited (ABN 61 003 245 234/AFS Licence No: 238066) is a Market Participant with the ASX and regulated by ASIC. **Taiwan:** J.P.Morgan Securities (Taiwan) Limited is a participant of the Taiwan Stock Exchange (company-type) and regulated by the Taiwan Securities and Futures Bureau. **India:** J.P. Morgan India Private Limited, having its registered office at J.P. Morgan Tower, Off. C.S.T. Road, Kalina, Santacruz East, Mumbai - 400098, is a member of the National Stock Exchange of India Limited (SEBI Registration Number - INB 230675231/INF 230675231/INE 230675231) and Bombay Stock Exchange Limited (SEBI Registration Number - INB 010675237/INF 010675237) and is regulated by Securities and Exchange Board of India. **Thailand:** JPMorgan Securities (Thailand) Limited is a member of the Stock Exchange of Thailand and is regulated by the Ministry of Finance and the Securities and Exchange Commission. **Indonesia:** PT J.P. Morgan Securities Indonesia is a member of the Indonesia Stock Exchange and is regulated by the BAPEPAM LK. **Philippines:** J.P. Morgan Securities Philippines Inc. is a member of the Philippine Stock Exchange and is regulated by the Securities and Exchange Commission. **Brazil:** Banco J.P. Morgan S.A. is regulated by the Comissao de Valores Mobiliarios (CVM) and by the Central Bank of Brazil. **Mexico:** J.P. Morgan Casa de Bolsa, S.A. de C.V., J.P. Morgan Grupo Financiero is a member of the Mexican Stock Exchange and authorized to act as a broker dealer by the National Banking and Securities Exchange Commission. **Singapore:** This material is issued and distributed in Singapore by J.P. Morgan Securities Singapore Private Limited (JPMSS) [MICA (P) 088/04/2012 and Co. Reg. No.: 199405335R] which is a member of the Singapore Exchange Securities Trading Limited and is regulated by the Monetary Authority of Singapore (MAS) and/or JPMorgan Chase Bank, N.A., Singapore branch (JPMCB Singapore) which is regulated by the MAS. **Malaysia:** This material is issued and distributed in Malaysia by JPMorgan Securities (Malaysia) Sdn Bhd (18146-X) which is a Participating Organization of Bursa Malaysia Berhad and a holder of Capital Markets Services License issued by the Securities Commission in Malaysia. **Pakistan:** J. P. Morgan Pakistan Broking (Pvt.) Ltd is a member of the Karachi Stock Exchange and regulated by the Securities and Exchange Commission of Pakistan. **Saudi Arabia:** J.P. Morgan Saudi Arabia Ltd. is authorized by the Capital Market Authority of the Kingdom of Saudi Arabia (CMA) to carry out dealing as an agent, arranging, advising and custody, with respect to securities business under licence number 35-07079 and its registered address is at 8th Floor, Al-Faisaliyah Tower, King Fahad Road, P.O. Box 51907, Riyadh 11553, Kingdom of Saudi Arabia. **Dubai:** JPMorgan Chase Bank, N.A., Dubai Branch is regulated by the Dubai Financial Services Authority (DFSA) and its registered address is Dubai International Financial Centre - Building 3, Level 7, PO Box 506551, Dubai, UAE.

Country and Region Specific Disclosures
U.K. and European Economic Area (EEA): Unless specified to the contrary, issued and approved for distribution in the U.K. and the EEA by JPMSL. Investment research issued by JPMSL has been prepared in accordance with JPMSL's policies for managing conflicts of interest arising as a result of publication and distribution of investment research. Many European regulators require a firm to establish, implement and maintain such a policy. This report has been issued in the U.K. only to persons of a kind described in Article 19 (5), 38, 47 and 49 of the Financial Services and Markets Act 2000 (Financial Promotion) Order 2005 (all such persons being referred to as "relevant persons"). This document must not be acted on or relied on by persons who are not relevant persons. Any investment or investment activity to which this document relates is only available to relevant persons and will be engaged in only with relevant persons. In other EEA countries, the report has been issued to persons regarded as professional investors (or equivalent) in their home jurisdiction. **Australia:** This material is issued and distributed by JPMSAL in Australia to "wholesale clients" only. JPMSAL does not issue or distribute this material to "retail clients". The recipient of this material must not distribute it to any third party or outside Australia without the prior written consent of JPMSAL. For the purposes of this paragraph the terms "wholesale client" and "retail client" have the meanings given to them in section 761G of the Corporations Act 2001. **Germany:** This material is distributed in Germany by J.P. Morgan Securities Ltd., Frankfurt Branch and J.P.Morgan Chase Bank, N.A., Frankfurt Branch which are regulated by the Bundesanstalt für Finanzdienstleistungsaufsicht. **Hong Kong:** The 1%

ownership disclosure as of the previous month end satisfies the requirements under Paragraph 16.5(a) of the Hong Kong Code of Conduct for Persons Licensed by or Registered with the Securities and Futures Commission. (For research published within the first ten days of the month, the disclosure may be based on the month end data from two months prior.) J.P. Morgan Broking (Hong Kong) Limited is the liquidity provider/market maker for derivative warrants, callable bull bear contracts and stock options listed on the Stock Exchange of Hong Kong Limited. An updated list can be found on HKEx website: http://www.hkex.com.hk. **Japan:** There is a risk that a loss may occur due to a change in the price of the shares in the case of share trading, and that a loss may occur due to the exchange rate in the case of foreign share trading. In the case of share trading, JPMorgan Securities Japan Co., Ltd., will be receiving a brokerage fee and consumption tax (shouhizei) calculated by multiplying the executed price by the commission rate which was individually agreed between JPMorgan Securities Japan Co., Ltd., and the customer in advance. Financial Instruments Firms: JPMorgan Securities Japan Co., Ltd., Kanto Local Finance Bureau (kinsho) No. 82 Participating Association / Japan Securities Dealers Association, The Financial Futures Association of Japan, Type II Financial Instruments Firms Association and Japan Securities Investment Advisers Association. **Korea:** This report may have been edited or contributed to from time to time by affiliates of J.P. Morgan Securities (Far East) Ltd, Seoul Branch. **Singapore:** JPMSS and/or its affiliates may have a holding in any of the securities discussed in this report; for securities where the holding is 1% or greater, the specific holding is disclosed in the Important Disclosures section above. **India:** For private circulation only, not for sale. **Pakistan:** For private circulation only, not for sale. **New Zealand:** This material is issued and distributed by JPMSAL in New Zealand only to persons whose principal business is the investment of money or who, in the course of and for the purposes of their business, habitually invest money. JPMSAL does not issue or distribute this material to members of "the public" as determined in accordance with section 3 of the Securities Act 1978. The recipient of this material must not distribute it to any third party or outside New Zealand without the prior written consent of JPMSAL. **Canada:** The information contained herein is not, and under no circumstances is to be construed as, a prospectus, an advertisement, a public offering, an offer to sell securities described herein, or solicitation of an offer to buy securities described herein, in Canada or any province or territory thereof. Any offer or sale of the securities described herein in Canada will be made only under an exemption from the requirements to file a prospectus with the relevant Canadian securities regulators and only by a dealer properly registered under applicable securities laws or, alternatively, pursuant to an exemption from the dealer registration requirement in the relevant province or territory of Canada in which such offer or sale is made. The information contained herein is under no circumstances to be construed as investment advice in any province or territory of Canada and is not tailored to the needs of the recipient. To the extent that the information contained herein references securities of an issuer incorporated, formed or created under the laws of Canada or a province or territory of Canada, any trades in such securities must be conducted through a dealer registered in Canada. No securities commission or similar regulatory authority in Canada has reviewed or in any way passed judgment upon these materials, the information contained herein or the merits of the securities described herein, and any representation to the contrary is an offence. **Dubai:** This report has been issued to persons regarded as professional clients as defined under the DFSA rules.

General: Additional information is available upon request. Information has been obtained from sources believed to be reliable but JPMorgan Chase & Co. or its affiliates and/or subsidiaries (collectively J.P. Morgan) do not warrant its completeness or accuracy except with respect to any disclosures relative to JPMS and/or its affiliates and the analyst's involvement with the issuer that is the subject of the research. All pricing is as of the close of market for the securities discussed, unless otherwise stated. Opinions and estimates constitute our judgment as of the date of this material and are subject to change without notice. Past performance is not indicative of future results. This material is not intended as an offer or solicitation for the purchase or sale of any financial instrument. The opinions and recommendations herein do not take into account individual client circumstances, objectives, or needs and are not intended as recommendations of particular securities, financial instruments or strategies to particular clients. The recipient of this report must make its own independent decisions regarding any securities or financial instruments mentioned herein. JPMS distributes in the U.S. research published by non-U.S. affiliates and accepts responsibility for its contents. Periodic updates may be provided on companies/industries based on company specific developments or announcements, market conditions or any other publicly available information. Clients should contact analysts and execute transactions through a J.P. Morgan subsidiary or affiliate in their home jurisdiction unless governing law permits otherwise.

"Other Disclosures" last revised April 18, 2012.