

## Equities

1 July 2011 | 10 pages

# Tuesday Tidings

## The Second Half Story

- **The Panic/Euphoria Model signals a nearly 90% chance of equity index gains over the next six months.** This proprietary sentiment gauge fell into panic territory for the first time this year only last week and it historically has generated powerful buy signals over six and 12-month time horizons, with average six-month appreciation of 8.9%. While the S&P 500 may get buffeted in the near term by weak consumer confidence or jobs data, other measures augur well for 2H11 returns.
- **An earnings estimate “reset” should provide the base for renewed EPS “meets” or “beats.”** Street numbers are at some risk with pre-announcement trends showing a wider swing than seen over the past few quarters. It is plausible that 2Q11 earnings releases could lead to cuts versus the seemingly conventional view that strong reports will get equities moving higher. Nonetheless, clipping estimates may be the means for removing any sense of lofty expectations, thereby providing the fodder for future upside surprises. Indeed, upward S&P 500 constituents’ aggregated EPS estimate revision momentum already has slipped to 45% from 65% in the last four-to-five weeks.
- **Credit conditions argue for capex strength and corporations agree.** While both strong earnings and a welcoming credit environment translate into an attractive low hurdle rate backdrop for new capital investment, it is even more fulfilling to witness rising capex trends from corporate America. Indeed, a review of more than 700 publicly traded nonfinancial US companies covered by Citi’s equity analysts show a near 17% projected increase in capital spending for 2011 versus an 11% planned growth figure earlier this year and compares very favorably with less than 6% in 2010.
- **Some resolution on Southern European and US debt concerns should pave the way for market strength.** Given the potential for very disruptive credit market moves given possible technical defaults in periphery Europe and the US (which is facing a looming debt ceiling deadline), some sense of stability is needed to believe that the awful outcomes do not come to bear. Thus, investors may need to see some developments on the political front to “buy into” the second half equity market recovery argument, especially given elevated corporate margins and the potential for international sales weakness in developing regions as well given that tighter monetary policy may mean somewhat slower revenue realization. Unfortunately, debt ceiling developments may go down to the August 2, 2011 wire, overshadowing EPS issues.
- **Higher bond yields should provide a reallocation catalyst.** Citi’s economists project higher Treasury yields by year-end and into 2012, with the Fed also likely to move rates higher in 2012. Thus, pension funds may need to reallocate some of their assets into equities, providing a new group of stock buyers beyond foreign investors and corporations themselves.

### Equities

**Tobias M Levkovich**

+1-212-816-1623

[tobias.levkovich@citi.com](mailto:tobias.levkovich@citi.com)
**Lorraine M Schmitt**
[lorraine.m.schmitt@citi.com](mailto:lorraine.m.schmitt@citi.com)
**Andrew T Ward**
[andrew.t.ward@citi.com](mailto:andrew.t.ward@citi.com)

See Appendix A-1 for Analyst Certification, Important Disclosures and non-US research analyst disclosures.

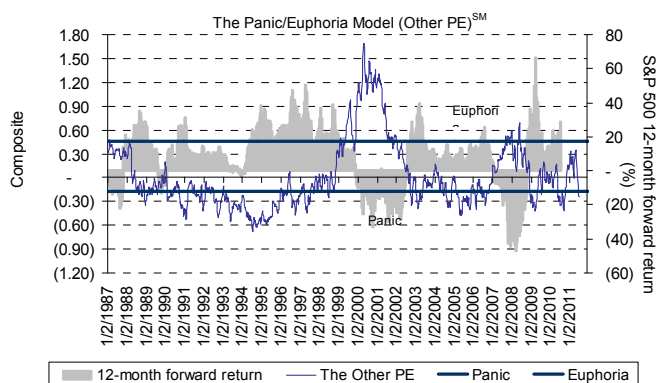
Citi Investment Research & Analysis is a division of Citigroup Global Markets Inc. (the “Firm”), which does and seeks to do business with companies covered in its research reports. As a result, investors should be aware that the Firm may have a conflict of interest that could affect the objectivity of this report. Investors should consider this report as only a single factor in making their investment decision.

## A Strong Start, a Tough Middle and a Better End

After enjoying a robust rally at the beginning of the year driven by strong EPS trends and a generally healthier business environment, equity prices struggled when faced with the impending end of QE2, seasonal weakness of industrial data, growing margin pressures, debt/deficit issues in Greece and tougher earnings comps. Moreover, unexpected weather challenges in the midsection of the country, the Japanese earthquake's component supply effects and an oil price surge (which admittedly is abating) also contributed to muddy the economic waters and had an impact on the "soft patch." These factors combined with complacent investor sentiment in April set stocks up for a fall in the spring, inviting the *Sell in May and Go Away* adage to come to fruition. Yet, there are reasons to believe that 2H11 could show recovery with our 1,400 target for the S&P 500 remaining intact.

In our opinion, one of the most significant drivers of stock prices is investor sentiment and our best measure is the Panic/Euphoria Model which blends nine facets of investor beliefs and, more importantly, fund manager actions, into a composite multi-dimensional gauge which just began sending positive market signals. Indeed, the model fell into "panic" territory a week ago and continued to be in panic this week despite the market's rally (see Figure 1), which statistically argues that there is a roughly 90% probability share prices are higher in six months and a 97% chance of gains in 12 months. On average, stocks appreciate 8.9% in six months and about 17.3% in a year when reviewing data looking back about 25 years versus random outcomes of market gains in the 75% range of likelihoods when studying the same time period. Note that this proprietary metric fell into panic late in 2008 and again in the summertime last year both in front of healthy market moves to the upside. Conversely, it surged into euphoria in both 2007 and 2008, implying forward equity market weakness as well. Thus, we consider it worthwhile to pay attention to this unique sentiment tracker. In contrast, we admit to finding it so intriguing that many investors focus on the so-called fear measure of the VIX volatility index. When the VIX registers a reading between 15 and 20 (its current range), there is a slightly less than 70% chance of market improvement over the next six months, which is a tad shy of the random outcome when studying the past 20 years (see Figure 2). Hence, we prefer our model's predictive capabilities.

Figure 1.



Source: Haver Analytics and CIRA – U.S. Equity Strategy

Figure 2. VIX vs S&P 500 Forward Performance

Buckets of 5 for VIX - S&P 500 Fwd Performance						
	15-20			Random Outcomes		
	3-mth	6-mth	12-mth	3-mth	6-mth	12-mth
Average	1.0%	2.8%	10.0%	1.9%	3.9%	8.1%
Median	2.2%	4.8%	10.0%	2.6%	4.7%	9.9%
Up	949	995	1210	3618	3792	4024
Down	526	431	204	1848	1609	1245
Total	1475	1426	1414	5466	5401	5269
% Up	64.3%	69.8%	85.6%	66.2%	70.2%	76.4%

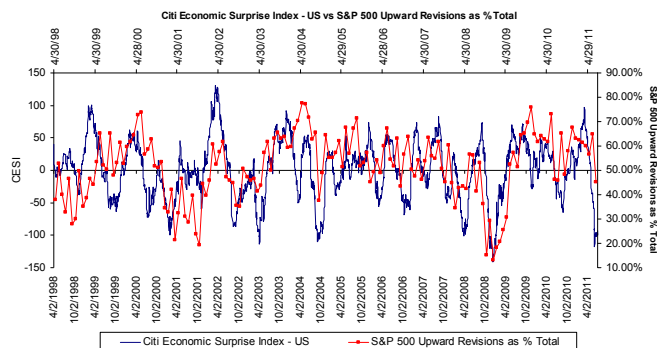
Source: Haver Analytics and CIRA – U.S. Equity Strategy

In addition, as we have highlighted over the past few weeks, a disconnect had emerged between the Citi Economic Surprise Index and sell-side analysts' EPS estimate revision momentum with the earnings forecasts lagging (see Figure 3). In this context, we suspect that the 2Q11 earnings reporting season may not be as positive as some think. The negative-to-positive pre-announcement ratio has

stepped up above its average at 2.5:1 versus 1Q11's 1.7:1 and 2Q10's 1.2:1 rate (see Figure 4), suggesting that corporate management teams are becoming increasingly uncomfortable with Street estimates and upward estimate revisions have begun to drop from their highs in May of around 65% of total changes, now sliding back to 45%.

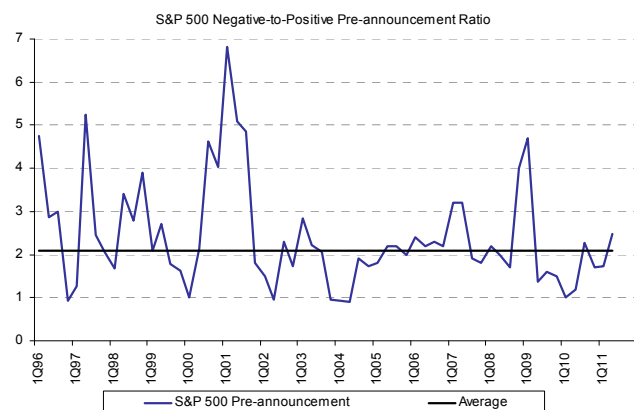
In addition, Bloomberg aggregated sell-side 2Q11 estimates suggest that S&P 500 EPS may expand by only 13.3% year over year with or without the Financials sector relative to better than 20% growth in the past two quarters and in excess of 30% for the prior four quarters (see Figure 5). While overall 2Q11 estimates for growth have been stable, there have been increases in estimated EPS growth late in the quarter for the Energy, Utilities and Materials sectors while others have slipped including Consumer Discretionary names. We do find it fascinating that our April client survey suggested that investors were beginning to get more concerned about Street numbers potentially being too aggressive. In this sense, investors need to see earnings growth forecasts trimmed back to essentially "reset" the expectations bar after which shares prices can renew their ascent. Indeed, barring a recession, upward revision trends could slide into the 40% range before things turn around (see Figure 6). Back in April, companies beat estimates and raised their guidance and, for the most part, stocks stopped rising even on this good news flow suggesting that the Street already had anticipated the upside story. It is possible that earnings misses and lowered guidance being met with stock price resilience will be an equally good sign to buy shares this summer.

Figure 3.



Source: Bloomberg, FactSet and CIRA – U.S. Equity Strategy

Figure 4.



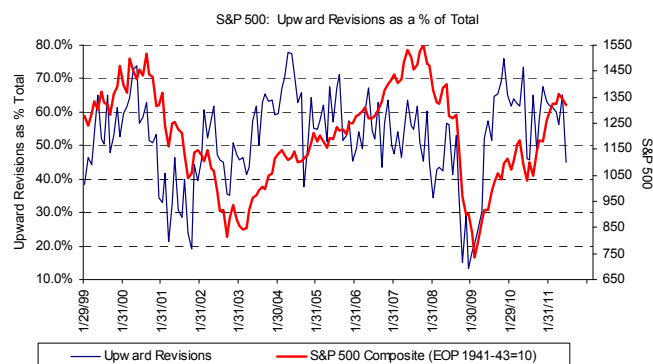
Source: Thomson and CIRA – US Equity Strategy

Figure 5. Estimated Earnings Per Share Growth for S&P 500 Sectors

S&P 500 EPS Growth Estimates	4Q09	1Q10	2Q10	3Q10	4Q10	1Q11E	2Q11E	3Q11E	4Q11E	1Q12E
Consumer Discretionary	24.3%	117.5%	77.5%	28.2%	12.8%	14.7%	4.3%	18.6%	13.8%	13.1%
Consumer Staples	9.8%	13.2%	7.2%	3.9%	7.6%	5.6%	7.1%	9.5%	9.0%	9.7%
Energy	-24.8%	64.0%	99.7%	37.2%	42.8%	41.3%	40.5%	54.2%	31.4%	18.8%
Financials	103.0%	204.8%	122.7%	62.6%	283.0%	22.5%	13.2%	17.6%	33.0%	17.6%
Health Care	2.0%	16.8%	17.9%	10.9%	7.6%	6.6%	1.9%	3.6%	7.6%	3.2%
Industrials	-11.9%	3.7%	29.6%	50.6%	22.2%	34.0%	12.8%	18.2%	17.0%	19.7%
IT	46.3%	63.7%	54.1%	40.3%	14.4%	24.2%	10.9%	11.3%	11.3%	9.7%
Materials	141.8%	132.0%	108.9%	54.9%	44.0%	56.7%	46.3%	39.4%	25.2%	17.6%
Telecom Services	-19.2%	-2.0%	3.0%	-3.3%	13.7%	9.4%	3.9%	18.1%	18.5%	16.8%
Utilities	8.0%	5.4%	8.3%	13.3%	-0.1%	0.8%	-2.3%	0.6%	1.0%	-3.7%
S&P 500	75.7%	50.7%	48.6%	30.2%	24.3%	20.8%	13.3%	17.6%	17.3%	12.7%
Ex-Financials	7.8%	37.0%	39.9%	25.6%	15.7%	20.5%	13.3%	17.6%	14.6%	11.7%

Source: Bloomberg and CIRA – U.S. Equity Strategy

Figure 6.

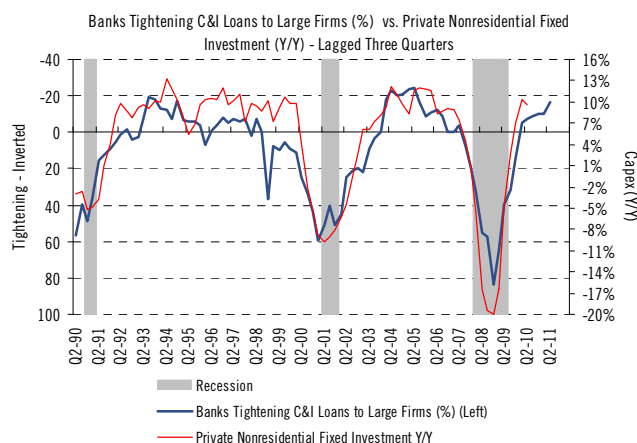


Source: Citi Investment Research and Analysis

Keep in mind that several groups look vulnerable to estimate reductions based on earnings estimate revision momentum. Food & Staples Retailing, Health Care Equipment & Services, Capital Goods and Materials have very extended trends to the upside that seem difficult to sustain and stock prices could slip given likely cuts from the current lofty levels. Conversely, Insurance, Semis & Semi Equipment, and Diversified Financials look poised for some improvement given stretched revision trends to the downside currently.

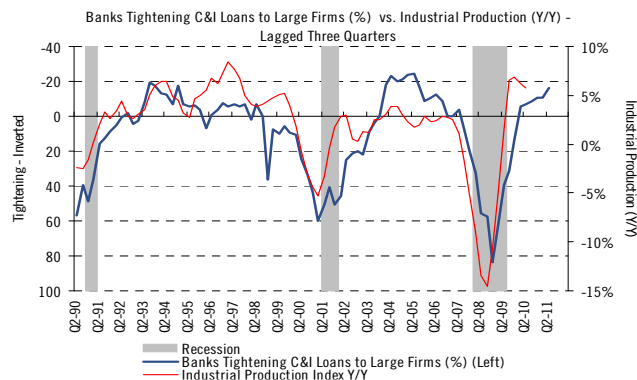
On a separate but very important note, credit conditions remain one of most reliable indicators of future economic activity as the Fed's survey of bank lending standards leads capex and industrial production by nine months (see Figure 7 and 8), and the most recent survey showed good plausibility of durable economic strength in 2H11, further providing a market catalyst when the term "double dip" has re-entered the investment community dialogue. Indeed, many worry that lending activity has not picked up meaningfully though the survey typically leads lending by 18 months and thus the commentary is not surprising but it is also not unusual for there to be a meaningful lag. Therefore, it is extremely encouraging to see that a review of corporate capital spending intentions defined as what more than 700 nonfinancial public companies are telling Citi's analysts about their capex intent is showing acceleration and intensification of capital expenditure growth. Figure 9 illustrates the latest data garnered by Citi's equity research professionals and it shows a near 17% pickup in 2011, about three times the level seen in the prior year. However, comparing Figure 9 to Figure 10 is more enlightening since the data in Figure 10 was the prior information that was collated several months ago. Interestingly, the Energy, Consumer Discretionary and Industrial sectors have increased intentions while Materials have cut back. As this information filters out and is seen in 2H11, one should expect equities to respond accordingly.

Figure 7.



Source: Haver Analytics and CIRA – U.S. Equity Strategy

Figure 8.



Source: Haver Analytics and CIRA – U.S. Equity Strategy

Figure 9. Capex Trends by Sectors based on CIRA US Coverage Universe (as of June 2011)

	2007	Aggregate Capex 2008	2009	2010	2011E
Consumer Discretionary	88,622	90,629	69,369	61,708	71,682
Consumer Staples	44,680	47,765	42,234	41,395	44,646
Energy	128,821	170,864	133,311	153,643	182,228
Financials	NA	NA	NA	NA	NA
Health Care	24,369	24,705	21,893	21,980	23,646
Industrials	42,753	42,576	32,560	34,136	45,192
IT	43,389	45,151	34,880	45,096	57,009
Materials	23,782	26,995	19,476	19,083	25,781
Telecom Services	49,035	50,040	44,481	48,968	51,680
Utilities	55,476	67,670	65,286	63,266	69,184
<b>Total</b>	<b>500,928</b>	<b>566,396</b>	<b>463,491</b>	<b>489,275</b>	<b>571,048</b>
		Aggregate Capex Y/Y Change 2008	2009	2010	2011E
Consumer Discretionary		2.3%	-23.5%	-11.0%	16.2%
Consumer Staples		6.9%	-11.6%	-2.0%	7.9%
Energy		32.6%	-22.0%	15.3%	18.6%
Financials					
Health Care		1.4%	-11.4%	0.4%	7.6%
Industrials		-0.4%	-23.5%	4.8%	32.4%
IT		4.1%	-22.7%	29.3%	26.4%
Materials		13.5%	-27.9%	-2.0%	35.1%
Telecom Services		2.0%	-11.1%	10.1%	5.5%
Utilities		22.0%	-3.5%	-3.1%	9.4%
<b>Total</b>		<b>13.1%</b>	<b>-18.2%</b>	<b>5.6%</b>	<b>16.7%</b>

Source: DataCentral and Citi Investment Research and Analysis

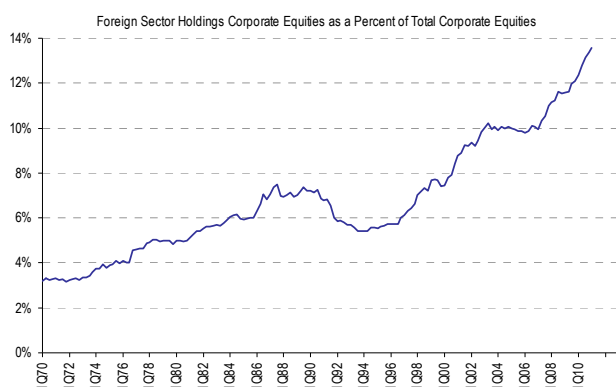
Figure 10. Capex Trends by Sectors based on CIRA US Coverage Universe (as of April 2011)

	2007	Aggregate Capex 2008	2009	2010E	2011E
Consumer Discretionary	87,951	89,771	68,639	62,366	69,259
Consumer Staples	44,730	47,825	42,277	41,279	45,301
Energy	124,883	166,796	130,222	150,759	164,272
Financials	NA	NA	NA	NA	NA
Health Care	23,398	23,774	21,138	23,449	25,361
Industrials	42,384	42,125	32,224	33,947	43,789
IT	43,109	44,726	34,633	42,826	52,711
Materials	23,730	26,943	19,418	18,322	26,082
Telecom Services	50,256	51,817	45,890	50,440	48,619
Utilities	56,699	69,124	64,677	62,951	65,409
<b>Total</b>	<b>497,141</b>	<b>562,901</b>	<b>459,118</b>	<b>486,339</b>	<b>540,803</b>
		Aggregate Capex Y/Y Change 2008	2009	2010E	2011E
Consumer Discretionary		2.1%	-23.5%	-9.1%	11.1%
Consumer Staples		6.9%	-11.6%	-2.4%	9.7%
Energy		33.6%	-21.9%	15.8%	9.0%
Financials					
Health Care		1.6%	-11.1%	10.9%	8.2%
Industrials		-0.6%	-23.5%	5.3%	29.0%
IT		3.8%	-22.6%	23.7%	23.1%
Materials		13.5%	-27.9%	-5.6%	42.4%
Telecom Services		3.1%	-11.4%	9.9%	-3.6%
Utilities		21.9%	-6.4%	-2.7%	3.9%
<b>Total</b>		<b>13.2%</b>	<b>-18.4%</b>	<b>5.9%</b>	<b>11.2%</b>

Source: DataCentral and Citi Investment Research and Analysis

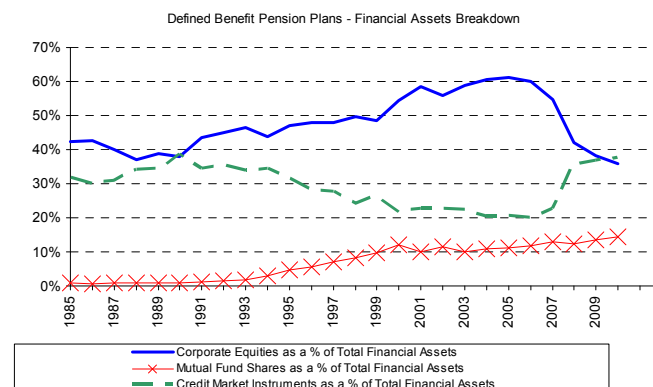
Another reason to believe that buyers show up beyond foreign buyers who keep upping their position in US equities (see Figure 11) is that pension funds will be forced to re-allocate a bit more towards equities and away from fixed income instruments (see our Pension Comprehension note of June 28, 2011). Indeed, bond holdings are at 25-year highs (see Figure 12) and higher yields could bite into bond values and cause some shifting of assets back towards equities but most likely later in the year.

Figure 11.



Source: Haver Analytics and CIRA – U.S. Equity Strategy

Figure 12.



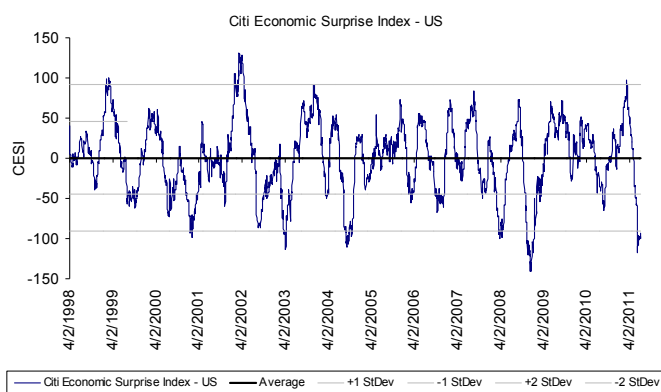
Source: Haver Analytics and CIRA – U.S. Equity Strategy

The key risk right now is that credit markets unravel if sovereign debt woes in periphery Europe and the US are not handled carefully since financial market upheaval would be one of the last things one would want to see happen. It would undermine confidence meaningfully and thus we would want to see a bit more stability before jumping into the market. Southern European concerns abated this

week with some austerity packages being approved but there is still much to be done there. With the US debt ceiling looming in early August, the political environment could get tense and markets may get more volatile with a vote coming down to the wire. Our sources in DC suggest that there are negotiations behind the scenes (despite some very public political theater) yet tax increases are a huge stumbling block for the Republicans to muster the votes and Democrats insist they be part of the package. One well-placed source indicated that a very substantial number of Republican freshmen would balk at any debt ceiling lift and a tax increase would mean that only about 50 Republicans in the House would support that type of legislation. Hence, one should expect uncertainty on this issue through July and it could overshadow earnings developments near term but a deal ultimately should get done. Nonetheless, there are good reasons to believe that 2H11 could be back to a more normal situation benefiting from renewed jobs and capital investment activity which would encourage investors to step up and take on some more risk especially when there becomes some visibility out of Washington on the debt ceiling. However, it still might be a bit premature to assume that the change to the better already has begun to occur.

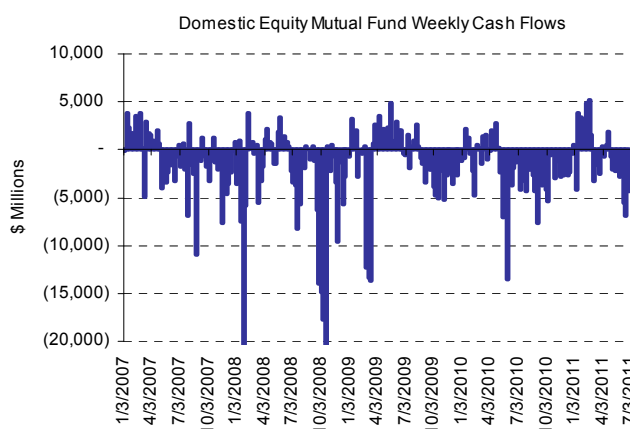
There are other factors that provide us with some degree of comfort regarding 2H11, including the level of the Citi Economic Surprise Index which appears to be rebounding off its bottom (see Figure 13) and continued domestic equity mutual fund outflows that signal individual investors are far from convinced that stocks are headed higher (see Figure 14). In the past few years, money flows have been relatively good contra-indicators such that inflows in March/April actually suggested growing confidence that put equity prices at risk. Thus, we cannot permanently stand on the sidelines and given the cautious sentiment we are willing to lean into markets, recognizing there could be significant bumps this summer. Our preference is for certain areas within Financials (such as Diversified Financials and Insurance) and Information Technology (specifically, Tech Hardware and Semiconductors) as well as Energy names.

Figure 13.



Source: Bloomberg and CIRA – U.S. Equity Strategy

Figure 14.



Source: Haver Analytics and CIRA – U.S. Equity Strategy



## Appendix A-1

### Analyst Certification

The research analyst(s) primarily responsible for the preparation and content of this research report are named in bold text in the author block at the front of the product except for those sections where an analyst's name appears in bold alongside content which is attributable to that analyst. Each of these analyst(s) certify, with respect to the section(s) of the report for which they are responsible, that the views expressed therein accurately reflect their personal views about each issuer and security referenced and were prepared in an independent manner, including with respect to Citigroup Global Markets Inc and its affiliates. No part of the research analyst's compensation was, is, or will be, directly or indirectly, related to the specific recommendation(s) or view(s) expressed by that research analyst in this report.

### IMPORTANT DISCLOSURES

Analysts' compensation is determined based upon activities and services intended to benefit the investor clients of Citigroup Global Markets Inc. and its affiliates ("the Firm"). Like all Firm employees, analysts receive compensation that is impacted by overall firm profitability which includes investment banking revenues.

For important disclosures (including copies of historical disclosures) regarding the companies that are the subject of this Citi Investment Research & Analysis product ("the Product"), please contact Citi Investment Research & Analysis, 388 Greenwich Street, 28th Floor, New York, NY, 10013, Attention: Legal/Compliance. In addition, the same important disclosures, with the exception of the Valuation and Risk assessments and historical disclosures, are contained on the Firm's disclosure website at [www.citigroupgeo.com](http://www.citigroupgeo.com). Valuation and Risk assessments can be found in the text of the most recent research note/report regarding the subject company. Historical disclosures (for up to the past three years) will be provided upon request.

#### Citi Investment Research & Analysis Ratings Distribution

<b>Data current as of 30 Jun 2011</b>	<b>12 Month Rating</b>			<b>Relative Rating</b>		
	<b>Buy</b>	<b>Hold</b>	<b>Sell</b>	<b>Buy</b>	<b>Hold</b>	<b>Sell</b>
Citi Investment Research & Analysis Global Fundamental Coverage	54%	36%	11%	10%	81%	10%
% of companies in each rating category that are investment banking clients	45%	41%	42%	50%	42%	44%

#### Guide to Citi Investment Research & Analysis (CIRA) Fundamental Research Investment Ratings:

CIRA's stock recommendations include a risk rating and an investment rating.

**Risk ratings**, which take into account both price volatility and fundamental criteria, are: Low (L), Medium (M), High (H), and Speculative (S).

**Investment ratings** are a function of CIRA's expectation of total return (forecast price appreciation and dividend yield within the next 12 months) and risk rating.

Analysts may place covered stocks "Under Review" in response to exceptional circumstances (e.g. lack of information critical to the analyst's thesis) affecting the company and/or trading in the company's securities (e.g. trading suspension). Stocks placed "Under Review" will be monitored daily by management. As soon as practically possible, the analyst will publish a note re-establishing a rating and investment thesis.

To satisfy regulatory requirements, we correspond Under Review to Hold in our ratings distribution table for our 12-month fundamental rating system. However, we reiterate that we do not consider Under Review to be a recommendation.

**Relative three-month ratings:** CIRA may also assign a three-month relative call (or rating) to a stock to highlight expected out-performance (most preferred) or under-performance (least preferred) versus the analyst's coverage universe over a 3 month period. The relative call may highlight a specific near-term catalyst or event impacting the company or the market that is anticipated to have a short-term price impact on the equity securities of the company. Absent any specific catalyst the analyst(s) will indicate the most and least preferred stocks in his coverage universe, explaining the basis for this short-term view. This three-month view may be different from and does not affect a stock's fundamental equity rating, which reflects a longer-term total absolute return expectation. For purposes of NASD/NYSE ratings-distribution-disclosure rules, most preferred calls correspond to a buy recommendation and least preferred calls correspond to a sell recommendation. Any stock not assigned to a most preferred or least preferred call is considered non-relative-rated (NRR). For purposes of NASD/NYSE ratings-distribution-disclosure rules we correspond NRR to Hold in our ratings distribution table for our 3-month relative rating system. However, we reiterate that we do not consider NRR to be a recommendation.

For securities in developed markets (US, UK, Europe, Japan, and Australia/New Zealand), investment ratings are: Buy (1) (expected total return of 10% or more for Low-Risk stocks, 15% or more for Medium-Risk stocks, 20% or more for High-Risk stocks, and 35% or more for Speculative stocks); Hold (2) (0%-10% for Low-Risk stocks, 0%-15% for Medium-Risk stocks, 0%-20% for High-Risk stocks, and 0%-35% for Speculative stocks); and Sell (3) (negative total return).

For securities in emerging markets (Asia Pacific, Emerging Europe/Middle East/Africa, and Latin America), investment ratings are: Buy (1) (expected total return of 15% or more for Low-Risk stocks, 20% or more for Medium-Risk stocks, 30% or more for High-Risk stocks, and 40% or more for Speculative stocks); Hold (2) (5%-15% for Low-Risk stocks, 10%-20% for Medium-Risk stocks, 15%-30% for High-Risk stocks, and 20%-40% for Speculative stocks); and Sell (3) (5% or less for Low-Risk stocks, 10% or less for Medium-Risk stocks, 15% or less for High-Risk stocks, and 20% or less for Speculative stocks).

Investment ratings are determined by the ranges described above at the time of initiation of coverage, a change in investment and/or risk rating, or a change in target price (subject to limited management discretion). At other times, the expected total returns may fall outside of these ranges because of market price movements and/or other short-term volatility or trading patterns. Such interim deviations from specified ranges will be permitted but will become subject to review by Research Management. Your decision to buy or sell a security should be based upon your personal investment objectives and should be made only after evaluating the stock's expected performance and risk.

#### NON-US RESEARCH ANALYST DISCLOSURES

Non-US research analysts who have prepared this report (i.e., all research analysts listed below other than those identified as employed by Citigroup Global Markets Inc.) are not registered/qualified as research analysts with FINRA. Such research analysts may not be associated persons of the member

organization and therefore may not be subject to the NYSE Rule 472 and NASD Rule 2711 restrictions on communications with a subject company, public appearances and trading securities held by a research analyst account. The legal entities employing the authors of this report are listed below:

Citigroup Global Markets Inc

Tobias M Levkovich; Lorraine M Schmitt; Andrew T Ward

---

## OTHER DISCLOSURES

For securities recommended in the Product in which the Firm is not a market maker, the Firm is a liquidity provider in the issuers' financial instruments and may act as principal in connection with such transactions. The Firm is a regular issuer of traded financial instruments linked to securities that may have been recommended in the Product. The Firm regularly trades in the securities of the issuer(s) discussed in the Product. The Firm may engage in securities transactions in a manner inconsistent with the Product and, with respect to securities covered by the Product, will buy or sell from customers on a principal basis.

Securities recommended, offered, or sold by the Firm: (i) are not insured by the Federal Deposit Insurance Corporation; (ii) are not deposits or other obligations of any insured depository institution (including Citibank); and (iii) are subject to investment risks, including the possible loss of the principal amount invested. Although information has been obtained from and is based upon sources that the Firm believes to be reliable, we do not guarantee its accuracy and it may be incomplete and condensed. Note, however, that the Firm has taken all reasonable steps to determine the accuracy and completeness of the disclosures made in the Important Disclosures section of the Product. The Firm's research department has received assistance from the subject company(ies) referred to in this Product including, but not limited to, discussions with management of the subject company(ies). Firm policy prohibits research analysts from sending draft research to subject companies. However, it should be presumed that the author of the Product has had discussions with the subject company to ensure factual accuracy prior to publication. All opinions, projections and estimates constitute the judgment of the author as of the date of the Product and these, plus any other information contained in the Product, are subject to change without notice. Prices and availability of financial instruments also are subject to change without notice. Notwithstanding other departments within the Firm advising the companies discussed in this Product, information obtained in such role is not used in the preparation of the Product. Although Citi Investment Research & Analysis (CIRA) does not set a predetermined frequency for publication, if the Product is a fundamental research report, it is the intention of CIRA to provide research coverage of the/those issuer(s) mentioned therein, including in response to news affecting this issuer, subject to applicable quiet periods and capacity constraints. The Product is for informational purposes only and is not intended as an offer or solicitation for the purchase or sale of a security. Any decision to purchase securities mentioned in the Product must take into account existing public information on such security or any registered prospectus.

Investing in non-U.S. securities, including ADRs, may entail certain risks. The securities of non-U.S. issuers may not be registered with, nor be subject to the reporting requirements of the U.S. Securities and Exchange Commission. There may be limited information available on foreign securities. Foreign companies are generally not subject to uniform audit and reporting standards, practices and requirements comparable to those in the U.S. Securities of some foreign companies may be less liquid and their prices more volatile than securities of comparable U.S. companies. In addition, exchange rate movements may have an adverse effect on the value of an investment in a foreign stock and its corresponding dividend payment for U.S. investors. Net dividends to ADR investors are estimated, using withholding tax rates conventions, deemed accurate, but investors are urged to consult their tax advisor for exact dividend computations. Investors who have received the Product from the Firm may be prohibited in certain states or other jurisdictions from purchasing securities mentioned in the Product from the Firm. Please ask your Financial Consultant for additional details. Citigroup Global Markets Inc. takes responsibility for the Product in the United States. Any orders by US investors resulting from the information contained in the Product may be placed only through Citigroup Global Markets Inc.

**Important Disclosures for Morgan Stanley Smith Barney LLC Customers:** Morgan Stanley & Co. Incorporated (Morgan Stanley) research reports may be available about the companies that are the subject of this Citi Investment Research & Analysis (CIRA) research report. Ask your Financial Advisor or use [smithbarney.com](http://smithbarney.com) to view any available Morgan Stanley research reports in addition to CIRA research reports.

Important disclosure regarding the relationship between the companies that are the subject of this CIRA research report and Morgan Stanley Smith Barney LLC and its affiliates are available at the Morgan Stanley Smith Barney disclosure website at [www.morganstanleysmithbarney.com/researchdisclosures](http://www.morganstanleysmithbarney.com/researchdisclosures). The required disclosures provided by Morgan Stanley and Citigroup Global Markets, Inc. on Morgan Stanley and CIRA research relate in part to the separate businesses of Citigroup Global Markets, Inc. and Morgan Stanley that now form Morgan Stanley Smith Barney LLC, rather than to Morgan Stanley Smith Barney LLC in its entirety. For Morgan Stanley and Citigroup Global Markets, Inc. specific disclosures, you may refer to [www.morganstanley.com/researchdisclosures](http://www.morganstanley.com/researchdisclosures) and [https://www.citigroupgeo.com/geopublic/Disclosures/index\\_a.html](https://www.citigroupgeo.com/geopublic/Disclosures/index_a.html).

This CIRA research report has been reviewed and approved on behalf of Morgan Stanley Smith Barney LLC. This review and approval was conducted by the same person who reviewed this research report on behalf of CIRA. This could create a conflict of interest.

The Citigroup legal entity that takes responsibility for the production of the Product is the legal entity which the first named author is employed by. The Product is made available in Australia through Citigroup Global Markets Australia Pty Ltd. (ABN 64 003 114 832 and AFSL No. 240992), participant of the ASX Group and regulated by the Australian Securities & Investments Commission. Citigroup Centre, 2 Park Street, Sydney, NSW 2000. The Product is made available in Australia to Private Banking wholesale clients through Citigroup Pty Limited (ABN 88 004 325 080 and AFSL 238098). Citigroup Pty Limited provides all financial product advice to Australian Private Banking wholesale clients through bankers and relationship managers. If there is any doubt about the suitability of investments held in Citigroup Private Bank accounts, investors should contact the Citigroup Private Bank in Australia. Citigroup companies may compensate affiliates and their representatives for providing products and services to clients. The Product is made available in Brazil by Citigroup Global Markets Brasil - CCTVM SA, which is regulated by CVM - Comissão de Valores Mobiliários, BACEN - Brazilian Central Bank, APIMEC - Associação dos Analistas e Profissionais de Investimento do Mercado de Capitais and ANBID - Associação Nacional dos Bancos de Investimento. Av. Paulista, 1111 - 11º andar - CEP. 01311920 - São Paulo - SP. If the Product is being made available in certain provinces of Canada by Citigroup Global Markets (Canada) Inc. ("CGM Canada"), CGM Canada has approved the Product. Citigroup Place, 123 Front Street West, Suite 1100, Toronto, Ontario M5J 2M3. This product is available in Chile through Banchile Corredores de Bolsa S.A., an indirect subsidiary of Citigroup Inc., which is regulated by the Superintendencia de Valores y Seguros. Agustinas 975, piso 2, Santiago, Chile. The Product is made available in France by Citigroup Global Markets Limited, which is authorised and regulated by Financial Services Authority. 1-5 Rue Paul Cézanne, 8ème, Paris, France. The Product is distributed in Germany by Citigroup Global Markets Deutschland AG ("CGMD"), which is regulated by Bundesanstalt fuer Finanzdienstleistungsaufsicht (BaFin). CGMD, Reuterweg 16, 60323 Frankfurt am Main. If the Product is made available in Hong Kong by, or on behalf of, Citigroup Global Markets Asia Ltd., it is



attributable to Citigroup Global Markets Asia Ltd., Citibank Tower, Citibank Plaza, 3 Garden Road, Hong Kong. Citigroup Global Markets Asia Ltd. is regulated by Hong Kong Securities and Futures Commission. If the Product is made available in Hong Kong by The Citigroup Private Bank to its clients, it is attributable to Citibank N.A., Citibank Tower, Citibank Plaza, 3 Garden Road, Hong Kong. The Citigroup Private Bank and Citibank N.A. is regulated by the Hong Kong Monetary Authority. The Product is made available in India by Citigroup Global Markets India Private Limited, which is regulated by Securities and Exchange Board of India. Bakhtawar, Nariman Point, Mumbai 400-021. The Product is made available in Indonesia through PT Citigroup Securities Indonesia. 5/F, Citibank Tower, Bapindo Plaza, Jl. Jend. Sudirman Kav. 54-55, Jakarta 12190. Neither this Product nor any copy hereof may be distributed in Indonesia or to any Indonesian citizens wherever they are domiciled or to Indonesian residents except in compliance with applicable capital market laws and regulations. This Product is not an offer of securities in Indonesia. The securities referred to in this Product have not been registered with the Capital Market and Financial Institutions Supervisory Agency (BAPEPAM-LK) pursuant to relevant capital market laws and regulations, and may not be offered or sold within the territory of the Republic of Indonesia or to Indonesian citizens through a public offering or in circumstances which constitute an offer within the meaning of the Indonesian capital market laws and regulations. The Product is made available in Israel through Citibank NA, regulated by the Bank of Israel and the Israeli Securities Authority. Citibank, N.A, Platinum Building, 21 Ha'arba'ah St, Tel Aviv, Israel. The Product is made available in Italy by Citigroup Global Markets Limited, which is authorised and regulated by Financial Services Authority. Foro Buonaparte 16, Milan, 20121, Italy. The Product is made available in Japan by Citigroup Global Markets Japan Inc. ("CGMJ"), which is regulated by Financial Services Agency, Securities and Exchange Surveillance Commission, Japan Securities Dealers Association, Tokyo Stock Exchange and Osaka Securities Exchange. Shin-Marunouchi Building, 1-5-1 Marunouchi, Chiyoda-ku, Tokyo 100-6520 Japan. If the Product was distributed by Nikko Cordial Securities Inc. it is being so distributed under license. In the event that an error is found in an CGMJ research report, a revised version will be posted on the Firm's Global Equities Online (GEO) website. If you have questions regarding GEO, please call (81 3) 6270-3019 for help. The Product is made available in Korea by Citigroup Global Markets Korea Securities Ltd., which is regulated by the Financial Services Commission, the Financial Supervisory Service and the Korea Financial Investment Association (KOFIA). Citibank Building, 39 Da-dong, Jung-gu, Seoul 110-180, Korea. KOFIA makes available registration information of research analysts on its website. Please visit the following website if you wish to find KOFIA registration information on research analysts of Citigroup Global Markets Korea Securities Ltd. <http://dis.kofia.or.kr/fs/dis2/fundMgr/DISFundMgrAnalystPop.jsp?companyCd2=A03030&pageDiv=02>. The Product is made available in Malaysia by Citigroup Global Markets Malaysia Sdn Bhd, which is regulated by Malaysia Securities Commission. Menara Citibank, 165 Jalan Ampang, Kuala Lumpur, 50450. The Product is made available in Mexico by Acciones y Valores Banamex, S.A. De C. V., Casa de Bolsa, Integrante del Grupo Financiero Banamex ("Accival") which is a wholly owned subsidiary of Citigroup Inc. and is regulated by Comision Nacional Bancaria y de Valores. Reforma 398, Col. Juarez, 06600 Mexico, D.F. In New Zealand the Product is made available through Citigroup Global Markets New Zealand Ltd. (Company Number 604457), a Participant of the New Zealand Exchange Limited and regulated by the New Zealand Securities Commission. Level 19, Mobile on the Park, 157 Lambton Quay, Wellington. The Product is made available in Pakistan by Citibank N.A. Pakistan branch, which is regulated by the State Bank of Pakistan and Securities Exchange Commission, Pakistan. AWT Plaza, 1.1. Chundrigar Road, P.O. Box 4889, Karachi-74200. The Product is made available in the Philippines through Citicorp Financial Services and Insurance Brokerage Philippines, Inc., which is regulated by the Philippines Securities and Exchange Commission. 20th Floor Citibank Square Bldg. The Product is made available in Poland by Dom Maklerski Banku Handlowego SA an indirect subsidiary of Citigroup Inc., which is regulated by Komisja Nadzoru Finansowego. Dom Maklerski Banku Handlowego S.A. ul.Senatorska 16, 00-923 Warszawa. The Product is made available in the Russian Federation through ZAO Citibank, which is licensed to carry out banking activities in the Russian Federation in accordance with the general banking license issued by the Central Bank of the Russian Federation and brokerage activities in accordance with the license issued by the Federal Service for Financial Markets. Neither the Product nor any information contained in the Product shall be considered as advertising the securities mentioned in this report within the territory of the Russian Federation or outside the Russian Federation. The Product does not constitute an appraisal within the meaning of the Federal Law of the Russian Federation of 29 July 1998 No. 135-FZ (as amended) On Appraisal Activities in the Russian Federation. 8-10 Gasheka Street, 125047 Moscow. The Product is made available in Singapore through Citigroup Global Markets Singapore Pte. Ltd., a Capital Markets Services Licence holder, and regulated by Monetary Authority of Singapore. 1 Temasek Avenue, #39-02 Millenia Tower, Singapore 039192. The Product is made available by The Citigroup Private Bank in Singapore through Citibank, N.A., Singapore branch, a licensed bank in Singapore that is regulated by Monetary Authority of Singapore. This report is distributed in Singapore by Citibank Singapore Ltd ("CSL") to selected Citigold/Citigold Private Clients. CSL provides no independent research or analysis of the substance or in preparation of this report. Please contact your Citigold/Citigold Private Client Relationship Manager in CSL if you have any queries on or any matters arising from or in connection with this report. Citigroup Global Markets (Pty) Ltd. is incorporated in the Republic of South Africa (company registration number 2000/025866/07) and its registered office is at 145 West Street, Sandton, 2196, Saxonwold. Citigroup Global Markets (Pty) Ltd. is regulated by JSE Securities Exchange South Africa, South African Reserve Bank and the Financial Services Board. The investments and services contained herein are not available to private customers in South Africa. The Product is made available in Spain by Citigroup Global Markets Limited, which is authorised and regulated by Financial Services Authority. 29 Jose Ortega Y Gassef, 4th Floor, Madrid, 28006, Spain. The Product is made available in Taiwan through Citigroup Global Markets Taiwan Securities Company Ltd., which is regulated by Securities & Futures Bureau. No portion of the report may be reproduced or quoted in Taiwan by the press or any other person. 14 and 15F, No. 1, Songzhi Road, Taipei 110, Taiwan. If the Product is related to non-Taiwan listed securities, neither the Product nor any information contained in the Product shall be considered as advertising the securities or making recommendation of the securities. The Product is made available in Thailand through Citicorp Securities (Thailand) Ltd., which is regulated by the Securities and Exchange Commission of Thailand. 18/F, 22/F and 29/F, 82 North Sathorn Road, Silom, Bangrak, Bangkok 10500, Thailand. The Product is made available in Turkey through Citibank AS which is regulated by Capital Markets Board. Tekfen Tower, Eski Buyukdere Caddesi # 209 Kat 2B, 23294 Levent, Istanbul, Turkey. In the U.A.E, these materials (the "Materials") are communicated by Citigroup Global Markets Limited, DIFC branch ("CGML"), an entity registered in the Dubai International Financial Center ("DIFC") and licensed and regulated by the Dubai Financial Services Authority ("DFSA") to Professional Clients and Market Counterparties only and should not be relied upon or distributed to Retail Clients. A distribution of the different CIRA ratings distribution, in percentage terms for Investments in each sector covered is made available on request. Financial products and/or services to which the Materials relate will only be made available to Professional Clients and Market Counterparties. The Product is made available in United Kingdom by Citigroup Global Markets Limited, which is authorised and regulated by Financial Services Authority. This material may relate to investments or services of a person outside of the UK or to other matters which are not regulated by the FSA and further details as to where this may be the case are available upon request in respect of this material. Citigroup Centre, Canada Square, Canary Wharf, London, E14 5LB. The Product is made available in United States by Citigroup Global Markets Inc, which is a member of FINRA and registered with the US Securities and Exchange Commission. 388 Greenwich Street, New York, NY 10013. Unless specified to the contrary, within EU Member States, the Product is made available by Citigroup Global Markets Limited, which is regulated by Financial Services Authority.

Pursuant to Comissão de Valores Mobiliários Rule 483, Citi is required to disclose whether a Citi related company or business has a commercial relationship with the subject company. Considering that Citi operates multiple businesses in more than 100 countries around the world, it is likely that Citi has a commercial relationship with the subject company.

Many European regulators require that a firm must establish, implement and make available a policy for managing conflicts of interest arising as a result of publication or distribution of investment research. The policy applicable to CIRA's Products can be found at [www.citigroupgeo.com](http://www.citigroupgeo.com).

Compensation of equity research analysts is determined by equity research management and Citigroup's senior management and is not linked to specific transactions or recommendations.

The Product may have been distributed simultaneously, in multiple formats, to the Firm's worldwide institutional and retail customers. The Product is not to be construed as providing investment services in any jurisdiction where the provision of such services would not be permitted.

Subject to the nature and contents of the Product, the investments described therein are subject to fluctuations in price and/or value and investors may get back less than originally invested. Certain high-volatility investments can be subject to sudden and large falls in value that could equal or exceed the amount invested. Certain investments contained in the Product may have tax implications for private customers whereby levels and basis of taxation may be subject to change. If in doubt, investors should seek advice from a tax adviser. The Product does not purport to identify the nature of the specific market or other risks associated with a particular transaction. Advice in the Product is general and should not be construed as personal advice given it has been prepared without taking account of the objectives, financial situation or needs of any particular investor. Accordingly, investors should, before acting on the advice, consider the appropriateness of the advice, having regard to their objectives, financial situation and needs. Prior to acquiring any financial product, it is the client's responsibility to obtain the relevant offer document for the product and consider it before making a decision as to whether to purchase the product. CIRA concurrently disseminates its research via proprietary and non-proprietary electronic distribution platforms. Periodically, individual analysts may also opt to circulate research to one or more clients by email. Such email distribution is discretionary and is done only after the research has been disseminated via the aforementioned distribution channels.

---

© 2011 Citigroup Global Markets Inc. Citi Investment Research & Analysis is a division of Citigroup Global Markets Inc. Citi and Citi with Arc Design are trademarks and service marks of Citigroup Inc. and its affiliates and are used and registered throughout the world. All rights reserved. Any unauthorized use, duplication, redistribution or disclosure of this report (the "Product"), including, but not limited to, redistribution of the Product by electronic mail, posting of the Product on a website or page, and/or providing to a third party a link to the Product, is prohibited by law and will result in prosecution. The information contained in the Product is intended solely for the recipient and may not be further distributed by the recipient to any third party. Where included in this report, MSCI sourced information is the exclusive property of Morgan Stanley Capital International Inc. (MSCI). Without prior written permission of MSCI, this information and any other MSCI intellectual property may not be reproduced, redisseminated or used to create any financial products, including any indices. This information is provided on an "as is" basis. The user assumes the entire risk of any use made of this information. MSCI, its affiliates and any third party involved in, or related to, computing or compiling the information hereby expressly disclaim all warranties of originality, accuracy, completeness, merchantability or fitness for a particular purpose with respect to any of this information. Without limiting any of the foregoing, in no event shall MSCI, any of its affiliates or any third party involved in, or related to, computing or compiling the information have any liability for any damages of any kind. MSCI, Morgan Stanley Capital International and the MSCI indexes are services marks of MSCI and its affiliates. The Firm accepts no liability whatsoever for the actions of third parties. The Product may provide the addresses of, or contain hyperlinks to, websites. Except to the extent to which the Product refers to website material of the Firm, the Firm has not reviewed the linked site. Equally, except to the extent to which the Product refers to website material of the Firm, the Firm takes no responsibility for, and makes no representations or warranties whatsoever as to, the data and information contained therein. Such address or hyperlink (including addresses or hyperlinks to website material of the Firm) is provided solely for your convenience and information and the content of the linked site does not in anyway form part of this document. Accessing such website or following such link through the Product or the website of the Firm shall be at your own risk and the Firm shall have no liability arising out of, or in connection with, any such referenced website.

---

ADDITIONAL INFORMATION IS AVAILABLE UPON REQUEST

---