31 October 2012 │ 11 pages

Asia Pacific

China Macro View

Takeaways from China Investor Conference 2012

- **No abrupt policy shift in the near term** – The mainstream view, with which we agree, is that the economy may stage a mild rebound in 4Q. This reduces the need to roll out fresh stimulus in the near term. Leadership transition may not lead to immediate policy shift. Reform measures that have been planned will likely continue to be implemented, but the expectation is that a new reform agenda will only be revealed in the fall of 2013.

- **The new leadership may accept slower growth** – Most experts believe China's potential growth rate would be 6-8% in the next decade. In response to government consultations, the majority of China's think tanks propose to set the growth target at 7.5% for 2013 to help stabilize expectations of growth. We think the growth target may be set at 7% to manage expectations of the local governments and leave room for structural reforms.

- **The incoming leadership emphasized the importance of reform** – Vice Premier Li Keqiang, who is expected to become premier in the new government, emphasized recently that the priority of the economic work is to lift efficiency in the economy, and the current problems in China's economy will have to be solved by reform. Based on past experience, new reform agenda will await the 3rd plenary session of the 18th Central Committee in the fall of 2013. But reform measures that have garnered broad support can proceed as planned, including income distribution, VAT reform and financial reform (such as easy entry, interest rate liberalization, deposit insurance, and capital market development).

- **The Central Bank may pay more attention to price stability** – According to the 12th five-year plan (FYP) on financial reform, the PBOC will pay more attention to inflation, including asset inflation. Meanwhile, the importance of traditional monetary aggregates (M0, M1 and M2) is declining, and that for total social financing is rising. The FYP aims to bring the share of direct financing in total social financing to 15% from the current 10%.

- **Structural tax cut is expected to be expanded** – Replacing business tax with VAT for selected service industries will benefit not only the service industries but also manufacturing industries purchasing relevant services. It is estimated if the current reform is expanded nationwide, tax reduction can reach about RMB400bn. The government is also considering cutting SME tax further, which would benefit a wide range of enterprises while limiting tax losses.

Shuang Ding
+852-2501-2769
shuang.ding@citi.com

Minggao Shen
+852-2501-2485
minggao.shen@citi.com

Enjiang Cheng
+86-10-5937-6038
enjiang.cheng@citi.com

Serena Wang
serena.wang@citi.com

Takeaways from China Investor Conference 2012

Citi hosted the China Investor Conference in Beijing during 29-30 Oct 2012. Speakers included policy makers and government-related experts from a wide range of areas. Here are the key takeaways.

Macro outlook

Policies are already accommodative – Fiscal and monetary policies have already been loosened since 4Q/2011. Broad money growth may exceed 14% this year. Fiscal policy is more expansionary with revenue growth falling and spending growth accelerating.

The economy has shown signs of turning around – Economic data since Sep have been mostly positive, including the share of longer-term loans in total new loans, export growth, PMI, industrial production and recruitment intentions. YoY growth may have bottomed, and sequential growth is improving.

There will be no stimulus if the economy rebounds – Assuming policies have a lagged effect of 3-4 quarters, the economy should rebound in 4Q/2012. If macro data in Oct do not deteriorate, it would confirm growth bottoming, and there will be no major policy change as a result.

Trade outlook is still gloomy amid weak external demand – Traditional advantage is being eroded and new competitive advantage has not been established. In addition, the government is not expected to use exchange rate or tax rebates as tools to boost export. Export growth is estimated at 7% in 2012 and 2013, and import growth at 6.1% in 2012 and 6.5% in 2013, assuming a constant real effective exchange rate.

FAI may grow by 20% this year – The accelerated approval of projects by NDRC and local governments may not be matched by additional financing. Among total FAI, property investment makes up about 20%; infrastructure investment accounts for 23%; and capacity investment constitutes 57%. If capacity investment slows in 2013, infrastructure investment will need to be accelerated to pick up the slack. The macro expert expects nominal FAI growth of 20% this year (19% in real terms, 2ppts higher than last year) and property investment growth of 16% (relative to 29% last year).

Consumption may accelerate in 4Q this year but new policy support is not expected – According to the consumption expert, retail sales growth tends to be higher in 2H than in 1H. So far this year, the sales of the following commodities have increased faster than average: communication goods, building materials, furniture, driven mainly by the construction of economically affordable houses, increased property sales in the second- and third-tier cities. However, vehicle sales increased by 2.5% YTD, the lowest in the last 13 years. There is also a slowdown in sales of electronic goods, following the expiration of government subsidies. This year, the government has no new policy initiatives for promoting consumption by providing subsidies, partly due to slower fiscal revenue growth. The subsidies for energy saving products are aimed at both consumption and production of these goods, and the effects on consumption is limited, given the relatively high prices for these goods. There is no consensus on car purchase subsidies.

There will be no strong rebound due to incomplete destocking – Growth will likely stabilize but the expert does not expect a strong rebound. The main reason is that de-stocking is incomplete as enterprises still hope for a large stimulus and have not cut inventories sufficiently. Ideally, industrial inventory growth should be lower

than industrial production growth, but that was not the case in Sep. This would affect the strength of an industrial production rebound, which could exhibit an L shape.

Growth may reach 7.6-7.7% this year and 8% next year – The macro expert expects growth to reach 7.7-7.8% in 4Q, and about 7.5% in 1H next year before accelerating in 2H. Annual growth this year can be 7.6-7.7%. Based on optimistic assumptions, including expansionary fiscal policy (deficit 2% of GDP), supportive monetary policy (not raising M2 and credit growth but rather increasing M1 growth to above 13% and the share of longer-term loans), and stable RMB, growth in 2013 may reach 8%. FAI growth can be slower than 2012 while consumption growth can be higher. PPI may stop falling in 1Q/2013. CPI inflation is estimated at 3% next year.

China's think tanks have proposed growth target of 7.5% for 2013 – Government is now asking for advice on next year's policy. According to the expert, policies may be eased further but not significantly. In response to government consultations, the majority of China's think tanks propose to set growth target at 7.5% for 2013 to help stabilize expectations of growth, while others suggest to bring growth target down to 7%.

Reform and longer-term growth

The good old days are over – The non-conventional measures taken in the advanced economies mitigated the crisis. However, the fundamental problems still exist, including high financial leverage and government debt, a low savings ratio and excessive development of the service sector. As a result, the crisis has been prolonged. In China, the factors contributing to rapid growth have weakened or reversed, due to fewer surplus labor; relatively lower service industry productivity; lower productivity of maintenance investment; and deficient innovation capacity.

The incoming leadership emphasized the importance of reform – Vice Premier Li Keqiang, who is expected to become premier in the new government, emphasized recently that: (i) the priority in the future is to lift efficiency in the economy; (ii) the current problems in China's economy will have to be solved by reform; (iii) price stability should be given more importance.

Most believe China's potential growth rate would be 6-8% in the next decade – According to estimate made by a leading government think tank, medium-term potential growth is close to 8% (7.5-8.2%). Another expert is more cautious, and estimates potential growth at 7.2% for 2011-15 and 6.1% for 2016-20, based on the assumption that labor supply growth is turning negative, investment growth would be lower together with diminishing return of capital, and total factor productivity growth would be flat.

But there are optimists as well – One expert thinks China can achieve a sustained 8% growth or above up to 2030, providing China can adopt the following six policies: (1) to encourage consumption and use consumption as the growth driver; (2) to develop the service industry; (3) to promote industry upgrading; (4) to promote agricultural modernization; (5) to speed up investment in infrastructure; and (6) to increase investment overseas. The development of the service industry can provide value and jobs for China’s economic growth. If the employment with the service sector can be raised to 50% of total employment in China, an additional 100 million jobs can be created.

Growth engines in the future include: (i) investment will continue to grow at relatively fast rate, especially investment intended to boost consumption and improve the population's living standards; (ii) industrialization still has a long way to go, and industry-related service sector can develop further; (iii) urbanization is an important source of growth, but it follows industrialization, and investment system needs to be reformed to meet the needs of urbanization.

Fundamental reform measures will only be known in a year – Based on past experience, new reform measures will only be approved during the 3rd plenary session of the 18th Central Committee in the fall of 2013. But reform measures that have already been contemplated and have garnered broad support can proceed before then, including income distribution, VAT reform and financial reform (such as easy access, interest rate liberalization, deposit insurance, and capital market development). Reform will likely take place in areas where the tension is the severest. One of the experts thinks the investment-driven growth model will not change following the leadership transition, and reform will only be triggered by crisis.

The main way to boost consumption is to increase household income – On rebalancing between consumption and investment, the government has realized the limitation of short-term consumption stimulus. The current strategy is to increase disposable income (especially for low-income households, including by tax cuts), expand social security and ensure product safety (such as food).

Monetary policy and financial market

The Central Bank may pay more attention to price stability – According to the 12th five-year plan on financial reform, the PBOC will pay more attention to inflation, including asset inflation. Meanwhile, the importance of traditional monetary aggregates (M0, M1 and M2) is declining, and that of total social financing is rising. In particular, the FYP targets the share of direct financing in total social financing of 15% (currently around 10%). However, total social financing is not under the PBOC's control, and cannot become the operational target.

The PBOC may not take drastic policy measures in the near term – The recent RMB appreciation is related to BOP surpluses. The PBOC has reduced intervention in the market and wishes to let the market to balance the supply and demand. As inflation may rise in 2013, the chance of a rate cut is slim. RRR cut may be possible depending on the direction and size of capital flows. PBOC stopped cutting interest rates and RRR after Jul partly due to a housing price rebound in recent months. Instead, the PBOC is using reverse repos to inject liquidity.

Credible reform may strengthen RMB in the longer term – RMB exchange rate will likely be driven by two competing forces in two separate scenarios. In the reform scenario, rebalancing itself would reduce the pressure on RMB appreciation against the dollar, but the optimism on policy and economy may lead to a stronger RMB. The net impact is likely biased toward further strengthening of the RMB. In the no reform scenario, the authority would hope the RMB to strengthen so that it could attract a steady capital inflow to support growth, but the pessimism on policy and economy could actually weaken the RMB. The net impact will likely be on the depreciation side.

The authorities are strengthening banking supervision – They will increase the decision making power of the board and allow the chief risk officer to report directly to the board, or to the shareholder’s conference. CBRC is going to take the

following measures next year: (a) introducing Basel III requirements on capital adequacy. The bank regulator is expected to announce by year-end plans for the transitory period, and new instruments that can be used to meet capital requirement; (b) giving more attention to bank liquidity; (c) raising the bank reserves for bad loans; (d) strengthening the supervision of the core banks, including the Big Four, State Development Bank and the Bank of Communications. More capital will have to come from the Chinese government, as the latter is the largest shareholder of the biggest banks (60-70% of the shares through Central Huijin Co.).

There are pending issues on deposit Insurance – To establish a deposit insurance mechanism for China's commercial banks has become a consensus in China. However, there are discussions and disagreement with regard to: (a) whether to set up a deposit insurance company or a fund; (b) who will be responsible for managing the deposit insurance entity: PBOC or CBRC; (c) the work scope and authorities of the deposit insurance mechanism in China. Some are concerned about the potential risk of moving from the current (informal but effectively) full insurance system to a partial insurance system.

Loan-to-deposit ratio may become a monitoring indicator in the future – The long-term goal is to revise the banking law to make the 75% ratio a supervision indicator rather than a compulsory limit. In the interim, the bank regulator is studying ways to revise the definitions of loans and deposits to ease the restriction.

China's shadow banking pose risks to the banks – One expert estimates the scale at Rmb18 trillion, about 30% of China's GDP. Shadow banking is made of mainly wealth management products of banks and trust loans. The bulk of bank's wealth management products have been channeled to property investment through trust funds and trust companies. Other forms of shadow banking include internet lending, such as P2P which has flourished in China.

Fiscal and tax policy

There will be no public debt crisis in the near term – According to estimates made by a leading government think tank, the net sovereign assets are about Rmb20-60tn. The key problem is the liquidity of these assets. To address the peaking of LGFV loan maturity, loans to projects under construction are mostly rolled over, but banks are cautious to extend loans to newly approved infrastructure projects.

The VAT tax reform will likely be expedited – Replacing business tax with VAT for selected service industries will benefit not only the service industries but also manufacturing industries purchasing relevant services. It is estimated if the current reform is expanded nationwide, tax reduction can reach about RMB400bn. This reform can also be expanded to construction, telecommunication and rail transportation. The tax expert expects the reform to be completed within ten years. Government revenue (esp. local revenue) will decline. To offset, local government may get a higher share of the VAT (currently local governments get 25% of the VAT).

Tax cut may continue for SMEs – As 90% of the enterprises contribute to 10% of the enterprise tax, the government is considering cutting SME tax further. This will benefit a wide range of enterprises while limiting tax losses.

There are oppositions to the expansion of property tax – The tax expert is against the introduction and expansion of property tax, due to the enforcement cost

and lack of interest from local governments. In his view the pilot program in Shanghai and Chongqing is not successful. He proposes instead to tax gains from housing transactions.

Property market

The property market is expected to be stable – According to the property expert, the property investment and floor space started are unlikely to fall further since: 1) negative growth in land sales is expected to be reversed on the back of stable funding sources and sufficient credit support; 2) The new policy by Ministry of Land and Resources states that vacant land will be forfeited if not developed within two years. Experience shows that new starts and land acquisition would pick up 5-6 months after the improvement of home sales. However, there is little chance for sharp price rebound next year due to high inventory.

No more tightening on property market in the near future – The government can accept mild home price increases. Curbing speculative property investment and supporting the basic housing demand remains the main task for the new government. Home purchase restrictions will not be relaxed while low-income and first home buyers will continue to benefit from social housing and credit support. The obstacles for expanding property tax are: (i) deficient information system; (ii) opposition by the local governments.

Social housing is well on the track – Until September, the total new starts has reached 93% of the annual target (7mn units) while the target to complete 5mn units is also expected to be met. The challenge for the next generation leaders is how to distribute these housing resources.

Housing demand will diverge as a result of population movements – It is critical to monitor the population flow to understand the balance of demand and supply. With the population inflows, some of the large cities may still have sufficient demand potential while some small- and medium-sized cities may suffer from over supply which is negative to the property price.

Job market

Resilient job market reflects changing balance between labor supply and demand – The current low unemployment statistics is consistent with the survey data and our observations. A chronic labor shortage with a continuous increase in wages is expected. Turning point in China’s labor market occurred in 2004 when labor surplus turned to labor shortage. The labor shortage will continue, with a negative increase in labor supply. This labor shortage can hardly been offset by extending retirement age, as older workers tend to be less educated with less skills.

This implies there is no need to boost growth to ensure full employment – The demographics expert believe potential growth in the next decade is in the range of 6-7% mostly due to the decline of working age population. Attempts to raising growth above the potential will cause labor shortages and inflation.

But the overall balance disguises structural problems – The Hukou system impeded the flow of labor. Labor supply can be increased by abolishing the Hukou system. Currently, the urban unemployment rate of 4.1% is consistent with the natural unemployment rate in China. As the economy fluctuates above and below the potential level, urban employment remains stable while the migrant workers take the shocks.

Structural unemployment may arise in the future – Currently, unskilled labor is in great demand, which reduces the incentive to go to school in rural areas. However, in the longer run, industrial upgrading and a shift of employment to service industries would require more skilled workers.

The government can play a positive role – The government shall accept a lower growth rate. The Government can act to increase the potential growth rate by removing the Hukou system, by providing basic social services and improving income distribution. However, large stimulus packages, regional and industrial policies will lead to market distortions, inflation and loss in economic efficiency.

Industry-specific developments

Coal Price – Coal price is expected to rebound in 4Q as the seasonal factor will push up demand for coal while the traditional transport equipment maintenance season will weigh on the supply chain. Our expert also estimates a mild recovery in coal price in 2013 thanks to the infrastructure projects approved by NDRC and investment plans rolled out by the local government. In addition, coal quality problems may reduce coal imports. Hydro power production may slow down next year following a big year in 2012, increasing demand for thermal power and coal.

Coal investment – Fixed asset investment in coal mining industry is limited due to: 1) the resource scarcity; 2) restrictions on the capacity expansion by the government; 3) environment protection. Therefore, the coal production growth is hard to accelerate and the era of hyper FAI growth in this sector seems close to the end. The industry consolidation is the main theme going forward, which may help to increase the productivity and efficiency as small-scale coal mining companies are going bankrupt .

Health Care – New leaders are expected to: 1) strengthen universal health insurance and extend the coverage of insurance; 2) increase government contribution from Rmb230 per person per year to Rmb360 per person per year, which may increase the total health-care expenditure to 6-7% of GDP; 3) facilitate the health insurance portability across the cities and programs; 4) improve the service delivery; 5) encourage private capital to invest into this market to compete with public hospital, thus to increase the efficiency.

Railway investment – Near-term railway FAI is accelerating due to government intention to limit the downside of the economy. Planned investment in 4Q is around 40% of the annual target of Rmb510bn. Long-term railway investment plan or 12th five-year plan has been decreased to Rmb2.8tn total investment and within which rail infrastructure investment is Rmb2.3tn. Given the upward adjustment to 2012 and possible flat FAI for 2013, the investment is front-loaded for railway infrastructure. Railway equipment FAI is more stable, with no less than Rmb100bn per year in the next three years.

Airport investment – CAAC plans to build another 66 airports between now and 2020 and China will have 256 airports by 2020 (at the end of 2010 China has 190 airports). Meanwhile, industry will try to enhance the hub airports like Beijing, Shanghai, and Guangzhou to further expand their network coverage.

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

Within the past 12 months, Citigroup Global Markets Inc. or its affiliates has acted as manager or co-manager of an offering of securities of China.

Citigroup Global Markets Inc. or its affiliates has received compensation for investment banking services provided within the past 12 months from China.

Citigroup Global Markets Inc. or its affiliates expects to receive or intends to seek, within the next three months, compensation for investment banking services from China.

Citigroup Global Markets Inc. or an affiliate received compensation for products and services other than investment banking services from China in the past 12 months.

Citigroup Global Markets Inc. currently has, or had within the past 12 months, the following as investment banking client(s): China.

Citigroup Global Markets Inc. currently has, or had within the past 12 months, the following as clients, and the services provided were non-investment-banking, securities-related: China.

Citigroup Global Markets Inc. currently has, or had within the past 12 months, the following as clients, and the services provided were non-investment-banking, non-securities-related: China.

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 Research product ("the Product"), please contact Citi Research, 388 Greenwich Street, 28th Floor, New York, NY, 10013, Attention: Legal/Compliance [E6WYB6412478]. 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 https://www.citivelocity.com/cvr/eppublic/citi_research_disclosures. 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.

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 Asia	Shuang Ding; Minggao Shen; Enjiang Cheng; Serena Wang

OTHER DISCLOSURES

Citigroup Global Markets Inc. and/or its affiliates has a significant financial interest in relation to China. (For an explanation of the determination of significant financial interest, please refer to the policy for managing conflicts of interest which can be found at www.citiVelocity.com.)

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 Research does not set a predetermined frequency for publication, if the Product is a fundamental research report, it is the intention of Citi Research 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. LLC (Morgan Stanley) research reports may be available about the companies that are the subject of this Citi Research research report. Ask your Financial Advisor or use smithbarney.com to view any available Morgan Stanley research reports in addition to Citi Research research reports.
Important disclosure regarding the relationship between the companies that are the subject of this Citi Research 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.
For Morgan Stanley and Citigroup Global Markets, Inc. specific disclosures, you may refer to www.morganstanley.com/researchdisclosures and https://www.citivelocity.com/cvr/eppublic/citi_research_disclosures.
This Citi Research 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 Citi Research. 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 Citi 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. Research which relates to "securities" (as defined in the Securities and Futures Ordinance (Cap. 571 of the Laws of Hong Kong)) is issued in **Hong Kong** by, or on behalf of, Citigroup Global Markets Asia Limited which takes full responsibility for its content. Citigroup Global Markets Asia Ltd. is regulated by Hong Kong Securities and Futures Commission. If the Research is made available through Citibank, N.A., Hong Kong Branch, for its clients in Citi Private Bank, it is made available by Citibank N.A., Citibank Tower, Citibank Plaza, 3 Garden Road, Hong Kong. Citibank N.A. is regulated by the Hong Kong Monetary Authority. Please contact your Private Banker in Citibank N.A., Hong Kong, Branch if you have any queries on or any matters arising from or in connection with this document. 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. Via dei Mercanti, 12, 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 SMBC Nikko 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 Citi Velocity website. If you have questions regarding Citi Velocity, 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 100-180, 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 Korea by Citibank Korea Inc., which is regulated by the Financial Services Commission and the Financial Supervisory Service. Address is Citibank Building, 39 Da-dong, Jung-gu, Seoul 100-180, Korea. The Product is made available in **Malaysia** by Citigroup Global Markets Malaysia Sdn Bhd (Company No.

460819-D) ("CGMM") to its clients and CGMM takes responsibility for its contents. CGMM is regulated by the Securities Commission of Malaysia. Please contact CGMM at Level 43 Menara Citibank, 165 Jalan Ampang, 50450 Kuala Lumpur, Malaysia in respect of any matters arising from, or in connection with, the Product. 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 to 'wholesale clients' only as defined by s5C(1) of the Financial Advisers Act 2008 ('FAA') through Citigroup Global Markets Australia Pty Ltd (ABN 64 003 114 832 and AFSL No. 240992), an overseas financial adviser as defined by the FAA, 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 **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 the Philippines through Citibank NA Philippines branch, Citibank Tower, 8741 Paseo De Roxas, Makati City, Manila. Citibank NA Philippines NA is regulated by The Bangko Sentral ng Pilipinas. 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. ("CGMSPL"), a capital markets services license holder, and regulated by Monetary Authority of Singapore. Please contact CGMSPL at 8 Marina View, 21st Floor Asia Square Tower 1, Singapore 018960, in respect of any matters arising from, or in connection with, the analysis of this document. This report is intended for recipients who are accredited, expert and institutional investors as defined under the Securities and Futures Act (Cap. 289). 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. Please contact your Private Banker in Citibank N.A., Singapore Branch if you have any queries on or any matters arising from or in connection with this document. This report is intended for recipients who are accredited, expert and institutional investors as defined under the Securities and Futures Act (Cap. 289). 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. This report is intended for recipients who are accredited investors as defined under the Securities and Futures Act (Cap. 289). 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 Gasset, 4th Floor, Madrid, 28006, Spain. The Product is made available in the **Republic of China** through Citigroup Global Markets Taiwan Securities Company Ltd. ("CGMTS"), 14 and 15F, No. 1, Songzhi Road, Taipei 110, Taiwan and/or through Citibank Securities (Taiwan) Company Limited ("CSTL"), 14 and 15F, No. 1, Songzhi Road, Taipei 110, Taiwan, subject to the respective license scope of each entity and the applicable laws and regulations in the Republic of China. CGMTS and CSTL are both regulated by the Securities and Futures Bureau of the Financial Supervisory Commission of Taiwan, the Republic of China. No portion of the Product may be reproduced or quoted in the Republic of China by the press or any third parties [without the written authorization of CGMTS and CSTL]. If the Product covers securities which are not allowed to be offered or traded in the Republic of China, neither the Product nor any information contained in the Product shall be considered as advertising the securities or making recommendation of the securities in the Republic of China. The Product is for informational purposes only and is not intended as an offer or solicitation for the purchase or sale of a security or financial products. Any decision to purchase securities or financial products mentioned in the Product must take into account existing public information on such security or the financial products or any registered prospectus. 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 Citi Research 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 Citi Research's Products can be found at https://www.citivelocity.com/cvr/eppublic/citi_research_disclosures.

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.