AGENDA

10:30 am  Welcome and Introductory Remarks, Jack Gutt, EVP

10:40 am-11:10 am  The National Economy, Richard Peach, Senior Vice President

11:10 am-11:40 pm  International Update, Matthew Higgins, Senior Vice President

11:40 pm-12:00 pm  Regional Update, Jason Bram, Officer

12:00 pm  Adjourn to NWC Room-10F

12:15 pm  Lunch

12:15 pm-1:55 pm  Round Table Discussion with William Dudley, President and Michael Strine, First Vice President

Your experience and that of your customers and suppliers can give us insight into current economic conditions.

Questions for discussion with President Dudley:

1. Did your firm’s sales volume increase, decrease, or stay the same in the first half of the year?
2. Do you expect your firm’s sales to increase, decrease, or stay the same during the second half?
3. Do you plan to increase investment in your firm (plant & equipment) during the second half of this year?
4. Has your firm faced any recent shortage of labor that has limited your ability to meet demand?
5. Do you plan to increase employment this year? Why or why not?
6. Do you expect input prices to increase this year? Do you expect prices of products/services sold to increase?
7. Over the past two quarters, how have the terms and conditions for obtaining financing changed (tightened, eased, not changed)?

2:00 pm  Museum and Gold Vault Tour
Small Business & Agricultural Advisory Council
Federal Reserve Bank of New York
33 Liberty Street
New York, NY
Monday, December 7, 2015

ATTENDEE LIST

Council Members

Michael Arnoff
President
Arnoff Moving & Storage

Eric Caslow
President
Acme Smoked Fish Corporation

Alejandro Ballester
President
Ballester Hermanos, Inc.

Charles Feit
President and Founder
OnForce Solar

Adenah Bayoh
Co-Founder
Kapwood, LLC

Peter Maglathlin
Chief Executive Officer
MBI, Inc.

William Byrne
Chairman of the Board
Byrne Dairy, Inc.

Patrick Marotta
President/CEO
Marotta Controls

Federal Reserve Bank of New York

William Dudley
President

Michael Strine
First Vice President

Jack Gutt
EVP, Communications & Outreach

Richard Peach
SVP, Research & Statistics

Kausar Hamdani
SVP, Communications & Outreach

Matthew Higgins
VP, Integrated Policy Analysis

Anand Marri
VP, Head of Outreach & Education

Jason Bram
Officer, Research & Statistics

Luis Uranga
Officer, Chief of Staff’s Office

Claire Kramer
AVP, Community Development, Outreach & Education

Chelsea Cruz
Senior Analyst, Outreach & Education

Angela Sun
Law clerk, Legal
Regional Economic Outlook
Presentation to the Advisory Council on Small Business and Agriculture
Jason Bram, Officer
December 7, 2015

The views expressed here are those of the presenter and do not necessarily represent the views of the Federal Reserve Bank of New York or the Federal Reserve System.
State Coincident Indexes
Three-Month Change Ending October 2015

Source: Federal Reserve Bank of Philadelphia
Regional Economic Activity
Index of Coincident Economic Indicators (CEI)

Index (Dec 2007 = 100)

Source: Federal Reserve Bank of New York
Future Economic Conditions
FRBNY Business Surveys, Conditions Six Months Ahead

Diffusion Index

Shading indicates NBER recession

Source: Federal Reserve Bank of New York
Private-Sector Employment
Seasonally Adjusted Index

Index (Dec2007=100)

Source: Bureau of Labor Statistics and Moody's Economy.com
Unemployment Rates
Seasonally Adjusted

Source: Bureau of Labor Statistics and Moody's Economy.com
NYC Securities Employment
Seasonally Adjusted Levels

Shading indicates time between securities and employment troughs

Total Employment Minus Securities (right axis)

Securities Employment (left axis)

Source: Bureau of Labor Statistics, Moody's Economy.com, and FRBNY calculations
Backlog of Foreclosures
Share of Mortgages in Foreclosure

Source: CoreLogic LoanPerformance (LP) and Lender Processing Services Mortgage Performance data (LPS)
Backlog of Foreclosures
Share of Mortgages in Foreclosure

Percent

Source: CoreLogic LoanPerformance (LP) and Lender Processing Services Mortgage Performance data (LPS)
Home Prices
CoreLogic Home Price Index, Seasonally Adjusted

Index (Mar2006=100)

Source: CoreLogic Home Price Index (including distressed sales)
Home Prices
CoreLogic Home Price Index, Seasonally Adjusted

Index (Mar2006=100)

Source: CoreLogic Home Price Index (including distressed sales)
Office Vacancy Rates
Overall Vacancy Rates

Source: Cushman & Wakefield
Office Vacancy Rates
Overall Vacancy Rates

Percent


Shading indicates NBER recessions

Fairfield County
Westchester County
Long Island

Source: Cushman & Wakefield
Private-Sector Employment
Seasonally Adjusted Index

Index (Dec 2007 = 100)

Source: Bureau of Labor Statistics and Moody's Economy.com
Private-Sector Employment
Seasonally Adjusted Index

Index (Dec2007=100)

Source: Bureau of Labor Statistics and Moody's Economy.com
State and Local Government Employment

Seasonally Adjusted Index

Shading indicates NBER recession

New York State datapoints for July and August 2009 interpolated to smooth large fluctuations due to summer jobs program

New York

United States

New Jersey

Index (Dec2007=100)

Source: Bureau of Labor Statistics and Moody's Economy.com
State Leading Indexes
Expected 6-Month Change in State Coincident Indexes as of Oct 2015

Source: Federal Reserve Bank of Philadelphia
## Job Growth by Sector

### Year-Over-Year Percent Change, October 2015

<table>
<thead>
<tr>
<th>Sector</th>
<th>United States</th>
<th>New York State</th>
<th>New Jersey</th>
<th>New York City</th>
<th>Connecticut</th>
<th>Puerto Rico</th>
</tr>
</thead>
<tbody>
<tr>
<td>Professional and Business Srvcs</td>
<td>3.3</td>
<td>2.1</td>
<td>-0.2</td>
<td>2.6</td>
<td>1.5</td>
<td>1.3</td>
</tr>
<tr>
<td>Leisure and Hospitality</td>
<td>3.0</td>
<td>2.4</td>
<td>2.5</td>
<td>3.5</td>
<td>3.3</td>
<td>1.5</td>
</tr>
<tr>
<td>Education and Health</td>
<td>2.8</td>
<td>3.8</td>
<td>2.1</td>
<td>3.6</td>
<td>1.6</td>
<td>3.7</td>
</tr>
<tr>
<td>Transportation and Utilities</td>
<td>2.2</td>
<td>1.3</td>
<td>5.4</td>
<td>0.2</td>
<td>2.2</td>
<td>7.9</td>
</tr>
<tr>
<td>Retail Trade</td>
<td>2.0</td>
<td>1.3</td>
<td>-0.2</td>
<td>3.2</td>
<td>1.9</td>
<td>0.5</td>
</tr>
<tr>
<td>Finance</td>
<td>1.8</td>
<td>0.2</td>
<td>0.2</td>
<td>2.1</td>
<td>2.0</td>
<td>-0.7</td>
</tr>
<tr>
<td>Information</td>
<td>1.6</td>
<td>0.7</td>
<td>0.8</td>
<td>0.6</td>
<td>2.6</td>
<td>2.5</td>
</tr>
<tr>
<td>Construction and Mining</td>
<td>1.6</td>
<td>5.8</td>
<td>6.3</td>
<td>3.0</td>
<td>1.5</td>
<td>-14.0</td>
</tr>
<tr>
<td>Wholesale Trade</td>
<td>1.3</td>
<td>-0.4</td>
<td>3.1</td>
<td>-1.2</td>
<td>0.3</td>
<td>-3.3</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>0.5</td>
<td>0.1</td>
<td>1.7</td>
<td>-2.2</td>
<td>1.4</td>
<td>-2.5</td>
</tr>
<tr>
<td>State and Local Government</td>
<td>0.5</td>
<td>-0.4</td>
<td>-0.1</td>
<td>0.3</td>
<td>0.2</td>
<td>0.6</td>
</tr>
<tr>
<td>Total Employment</td>
<td>1.9</td>
<td>1.8</td>
<td>1.4</td>
<td>2.3</td>
<td>1.4</td>
<td>0.5</td>
</tr>
</tbody>
</table>

Source: Bureau of Labor Statistics and Moody’s Economy.com
Overview

• US economy likely to grow around 2% (annual rate) over 2015H2, down from 2.3% over 2015H1.
  – Consumer spending leading growth.
  – Residential investment growing but not firing on all cylinders.
  – But dollar appreciation and slower growth abroad continue to exert a substantial drag on growth.
  – Business fixed investment rather sluggish.

• The labor market is showing all the classic signs of being at full employment.

• Core inflation has been stable but at a level below the FOMCs objective.
  – Rent inflation continues to edge higher.
  – Health care price inflation surprisingly low.
  – Core goods prices declining.
ISM Nonmanufacturing: NMI Composite Index
SA, 50+ = Increasing

ISM Mfg: PMI Composite Index
SA, 50+ = Econ Expand

Source: Institute for Supply Management
Note: Shading shows NBER recessions.
ISM Manufacturing versus Dollar Exchange Value

Source: Federal Reserve Board, Institute for Supply Management

Note: Shading shows NBER recessions.
Imports and Exports of Real Goods

4 Quarter % Change

Source: Bureau of Economic Analysis

Note: Shading shows NBER recessions.
Equipment Investment Spending and Capacity Utilization

Real Business Investment in New Equipment (% Change – Year to Year)

Quarterly data
1980Q1 – 2007Q4

2015Q3:
(76.3, 0.7)

Manufacturing Capacity Utilization (Percent of Capacity)

Source: Federal Reserve Board, Bureau of Economic Analysis
Baker Hughes US Oil Rig Count

Active Oil Rigs

Source: Baker Hughes

Note: Shading shows NBER recessions.
Growth of Real PCE and Energy Prices

Index % Change Year-to-Year

Source: Bureau of Economic Analysis

Note: Shading shows NBER recessions.
Housing Starts and Existing Home Sales Per Capita

Source: BLS, Census Bureau, National Association of Realtors
Housing Starts versus Population Growth by State

Source: BTMU, Census
Housing Starts versus Population Growth by State

Source: BTMU, Census
Credit Score at Mortgage Origination: All First Mortgages

About 35 to 40

Credit Score Credit Score

Source: FRBNY Consumer Credit Panel
Consumer Debt by Credit Score

% Change – Year to Year

Source: FRBNY Consumer Credit Panel

Note: Includes Student Loans
Change in Debt 2014Q3-2015Q3
By Credit Score Quintile

<table>
<thead>
<tr>
<th>Percent</th>
<th>293-603</th>
<th>604-680</th>
<th>681-750</th>
<th>751-801</th>
<th>802-842</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mortgage/HELOC</td>
<td>-10</td>
<td>5</td>
<td>10</td>
<td>-5</td>
<td>0</td>
</tr>
<tr>
<td>Auto</td>
<td>5</td>
<td>15</td>
<td>10</td>
<td>-5</td>
<td>0</td>
</tr>
<tr>
<td>Credit Card</td>
<td>0</td>
<td>5</td>
<td>10</td>
<td>-5</td>
<td>0</td>
</tr>
<tr>
<td>Student Loan</td>
<td>-10</td>
<td>0</td>
<td>5</td>
<td>-10</td>
<td>0</td>
</tr>
<tr>
<td>Inquiries</td>
<td>-5</td>
<td>-10</td>
<td>-15</td>
<td>10</td>
<td>20</td>
</tr>
</tbody>
</table>

Note: * 2014Q3 Quintiles
Real Government Consumption and Gross Investment

4 Quarter % Change

Federal (Left Axis)

State & Local (Right Axis)

Source: Bureau of Economic Analysis

Note: Shading shows NBER recessions.
Productivity Versus Compensation Per Hour

16-Qtr Annualized % Change

Source: BLS

Note: Shading shows NBER recessions.
Labor Share of National Income and Unemployment

Percent

Unemployment Rate (Right Axis)

Labor Share of National Income (Left Axis)

Source: Bureau of Economic Analysis, BLS
Note: Shading shows NBER recessions.
PCE Deflator

Source: Bureau of Economic Analysis, via Haver Analytics

Note: Shading shows NBER recessions.
CPI Inflation: Core Goods and Core Services

12 Month % Change

Source: Bureau of Labor Statistics

Note: Shading shows NBER recessions.
Rental Vacancy Rate and Rent of Primary Residence

Rental Vacancy Rate (Left Axis)

Rent of Primary Residence (Right Axis)

Source: Census Bureau, BLS
Note: Shading shows NBER recessions.
Personal Consumption Expenditures: Health Care Price Index
12 Month % Change

17% of total PCE deflator
19% of core PCE deflator

Source: Bureau of Economic Analysis
Note: Shading shows NBER recessions.
Global Economic Outlook

Small Business and Agricultural Advisory Council
Matthew Higgins, December 2015

The views expressed here are those of the author, and do not necessarily reflect those of the Federal Reserve Bank of New York or the Federal Reserve System.

Global GDP Growth
Percent 2Q/2Q SAAR

- Emerging
- Global
- Advanced

Market Forecasts
Euro Area Consumer Price Inflation

Source: Eurostat

Japan: Consumer price inflation

Sources: Ministry of Internal Affairs, Bank of Japan. Data exclude official estimate of impact of recent VAT hike.
Sources: BoJ, ECB, Federal Reserve. Projections assume that announced BoJ and ECB asset purchase programs proceed as planned, and that Federal Reserve credit remains constant at its current level. Nominal GDP is assumed to grow in line with current market forecasts.
Sources: Blue Chip Economics, Consensus Economics. Figures are GDP-weighted averages for 24 EMEs outside China.
Global Industrial Production and Export Volumes

1992:Q1 = 100, 3mma

Source: CPB World Trade Monitor.

Global Industrial Production and Export Volumes

2011:Q1 = 100, 3mma

Source: CPB World Trade Monitor.
Credit to Private Nonfinancial Sector (% GDP)

Advanced

China

Other EMEs

Sources: BIS, IMF.

Change in Private Credit to GDP Ratio
End-2007 to June 2015 or 7½ years preceding crisis

Percentage points

Sources: BIS, staff estimates.
Nonfinancial Corporate Credit by Source of Financing

$U.S. trillions, 2015:Q1

China

Other EMEs

Foreign Securities and Bank Loans

Domestic Debt Securities

Domestic Banks

Sources: BIS, staff estimates. Other EMEs includes India, Indonesia, Hong Kong, Korea, Malaysia, Singapore, Thailand, Brazil, Mexico, Czech Rep., Hungary, Poland, Russia, Turkey and South Africa.

U.S. High-Yield Corporate and EME Debt Spreads

Basis Points

Sources: BIS, staff estimates. Other EMEs includes India, Indonesia, Hong Kong, Korea, Malaysia, Singapore, Thailand, Brazil, Mexico, Czech Rep., Hungary, Poland, Russia, Turkey and South Africa.
EMEs: FX Reserves vs. Maturing Debt

Percent, end-2015

<table>
<thead>
<tr>
<th>Country</th>
<th>Percent, end-2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>Saudi Arabia</td>
<td>1600%</td>
</tr>
<tr>
<td>Philippines</td>
<td>1300%</td>
</tr>
<tr>
<td>Brazil</td>
<td>1200%</td>
</tr>
<tr>
<td>South Korea</td>
<td>1100%</td>
</tr>
<tr>
<td>Thailand</td>
<td>1000%</td>
</tr>
<tr>
<td>Colombia</td>
<td>900%</td>
</tr>
<tr>
<td>Poland</td>
<td>800%</td>
</tr>
<tr>
<td>India</td>
<td>700%</td>
</tr>
<tr>
<td>Mexico</td>
<td>600%</td>
</tr>
<tr>
<td>Egypt</td>
<td>500%</td>
</tr>
<tr>
<td>Indonesia</td>
<td>400%</td>
</tr>
<tr>
<td>Argentina</td>
<td>300%</td>
</tr>
<tr>
<td>Turkey</td>
<td>200%</td>
</tr>
<tr>
<td>Venezuela</td>
<td>100%</td>
</tr>
<tr>
<td>Singapore</td>
<td>0%</td>
</tr>
</tbody>
</table>

Sources: National authorities, FRBNY staff.

China and other EMEs: Capex as a Share of GDP

Percent

<table>
<thead>
<tr>
<th>Year</th>
<th>China</th>
<th>Other EMEs</th>
</tr>
</thead>
<tbody>
<tr>
<td>90</td>
<td>35</td>
<td>25</td>
</tr>
<tr>
<td>92</td>
<td>40</td>
<td>30</td>
</tr>
<tr>
<td>94</td>
<td>45</td>
<td>35</td>
</tr>
<tr>
<td>96</td>
<td>50</td>
<td>40</td>
</tr>
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<td>98</td>
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<td>45</td>
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<td>00</td>
<td>60</td>
<td>50</td>
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<tr>
<td>02</td>
<td>65</td>
<td>55</td>
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<td>04</td>
<td>70</td>
<td>60</td>
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<td>06</td>
<td>75</td>
<td>65</td>
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<td>08</td>
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<td>70</td>
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<td>10</td>
<td>85</td>
<td>75</td>
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<td>12</td>
<td>90</td>
<td>80</td>
</tr>
<tr>
<td>14</td>
<td>95</td>
<td>85</td>
</tr>
</tbody>
</table>

Source: WEO database.
### China: Incremental Capital – Output Ratio

Ratio of capital expenditure as a share of GDP to GDP growth

Source: China National Bureau of Statistics, staff estimates.

### Asia’s high-income countries slowed after reaching China’s current income level

#### Per Capita Income Growth Around China’s Income Level (%)

<table>
<thead>
<tr>
<th>Country and year</th>
<th>Decade Before</th>
<th>Decade After</th>
</tr>
</thead>
<tbody>
<tr>
<td>Japan (1970)</td>
<td>7.9</td>
<td>3.3</td>
</tr>
<tr>
<td>Hong Kong (1978)</td>
<td>6.7</td>
<td>6.3</td>
</tr>
<tr>
<td>Singapore (1980)</td>
<td>7.4</td>
<td>5.2</td>
</tr>
<tr>
<td>Taiwan (1984)</td>
<td>6.7</td>
<td>6.2</td>
</tr>
<tr>
<td>Korea (1991)</td>
<td>8.7</td>
<td>5.1</td>
</tr>
<tr>
<td>China (2015)</td>
<td>8.9</td>
<td>TBD</td>
</tr>
</tbody>
</table>

Source: Penn World Tables 8.1, World Development Indicators, WEO database. Annual compound growth rates of real per capita GDP at PPP.
China may struggle to match Asia’s success cases

- These cases were exceptional, with 10-year growth rates at or near the top of the historical range from China’s income level
  - Global growth won’t help, as it is likely to be slower
  - Already high export market penetration limits future growth
  - China aging rapidly; Asian economies felt demographic tailwinds

- China faces greater rebalancing and reform challenges
  - Capex-to-GDP significantly higher
  - Credit-to-GDP far higher, with major legacy issues
  - Heavier state control of product and financial markets
  - Clear political economy obstacles to relaxing state control

China missing “software” for high-income status

<table>
<thead>
<tr>
<th>World Bank Governance Indicators</th>
<th>Mean = 0, STD = 1.0</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>China 2005</td>
</tr>
<tr>
<td>Regulatory Quality</td>
<td>-0.13</td>
</tr>
<tr>
<td>Rule of Law</td>
<td>-0.49</td>
</tr>
<tr>
<td>Control of Corruption</td>
<td>-0.64</td>
</tr>
<tr>
<td>Control of Corruption</td>
<td>-0.64</td>
</tr>
<tr>
<td>Government Effectiveness</td>
<td>-0.09</td>
</tr>
<tr>
<td>Voice and Accountability</td>
<td>-1.40</td>
</tr>
<tr>
<td>Political Stability, Control of Violence</td>
<td>-0.18</td>
</tr>
</tbody>
</table>

Source: World Development Indicators. Each indicator is constructed from a variety of surveys, which are normalized and combined via an observed components analysis. The sample includes 121 countries, and excludes OPEC countries and those with populations of less than 3 million. Income categories are based on projected 2015 $U.S. per capita income. High income countries occupy the top quintile ($18,700, about one-third the U.S. level), and upper-middle income countries the next highest quintile ($6,632–$18,699).
**Chinese authorities have tools to limit downside**

- Large external liquidity buffer and still effective capital controls
  - Classical balance of payments crisis not in the cards
- High domestic savings rate
  - Readily tapped by official sector, supported by financial repression and capital controls
- Bank-centered financial system, with dominant state presence
  - Ample scope to “extend and pretend”
- Substantial fiscal space
  - Government debt only 66 percent of GDP (including locals)
- Role for government-directed capex to address pressing development needs
  - China’s vast interior remains a low-income country
  - Urbanization rate far below most development peers

**Policies to support growth could derail reform**

- Key risk: Chinese authorities will lean too heavily on familiar tools to reach growth targets, worsening existing imbalances
  - Continued build-up of embedded credit losses and contingent liabilities
  - Eventual bailouts exhaust fiscal space
  - Premature capital account opening would magnify crisis risk
- Longer term, difficult to gauge the way forward in China
  - Core issue: do authorities recognize extent to which their development goals require loosening economic control?
  - China’s economic and political system *must* reform, but *can* it reform?
Euro Area GDP Growth and Composite PMI

Correlation = 0.88

Percent SAAR

Index

GDP Growth

Composite PMI

Oct./Nov.

54.2
Emerging Market Manufacturing PMI

Source: HSBC.

- Average 2005 – 2008:Q1 = 53.3
- Average 2012 – 2015:Q1 = 50.5

Citigroup Economic Surprise Indexes

Percent positive or negative*

*Weighted by series' historical FX impact
Global Commodity Prices

Indexes, 2013:01 = 100

Crude (Brent)
Grains
Metals

Sources: BIS, staff estimates. Other EMEs includes India, Indonesia, Hong Kong, Korea, Malaysia, Singapore, Thailand, Brazil, Mexico, Czech Rep., Hungary, Poland, Russia, Turkey and South Africa.

Credit to the Nonfinancial Sector

$U.S. trillions

China

Other EMEs

2007:Q4

Government
Household
Corporate

Other EMEs

2015:Q1

Sources: BIS, staff estimates. Other EMEs includes India, Indonesia, Hong Kong, Korea, Malaysia, Singapore, Thailand, Brazil, Mexico, Czech Rep., Hungary, Poland, Russia, Turkey and South Africa.
**EME Corporate Debt at Risk**

ICRs < 2x assuming a 200 bps rate hike and 25% EBITDA decline

<table>
<thead>
<tr>
<th>Country</th>
<th>Debt at Risk</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brazil</td>
<td>Red</td>
</tr>
<tr>
<td>India</td>
<td>Steps</td>
</tr>
<tr>
<td>Turkey</td>
<td>Steps</td>
</tr>
<tr>
<td>Indonesia</td>
<td>Steps</td>
</tr>
<tr>
<td>Thailand</td>
<td>Steps</td>
</tr>
<tr>
<td>South Korea</td>
<td>Steps</td>
</tr>
<tr>
<td>Malaysia</td>
<td>Steps</td>
</tr>
<tr>
<td>Russia</td>
<td>Steps</td>
</tr>
<tr>
<td>South Africa</td>
<td>Steps</td>
</tr>
<tr>
<td>Mexico</td>
<td>Steps</td>
</tr>
</tbody>
</table>

Note: Represents the 1,800 most indebted companies listed on the national stock exchanges in 10 EMEs. Firms at risk have ICRs less than 2.
Source: Capital IQ, IPA estimates

**U.S. and EME equity performance**

Indexes, January 2014 = 100

- S&P500
- FTSE EME equity index

Note: Index values are in dollar terms
Oil Prices and the Russian ruble

Brazil: General Government Primary Surplus

Sources: National authorities, FRBNY