Rebalancing
Economic Themes and Emerging Risks for the Balance of 2016
Themes

- **Oil’s Not Well**
  - A world of cheap petroleum

- **Eastern Anxiety**
  - China attempts a difficult transition

- **Growing Prospects**
  - Central banks tackle a complicated mandate

- **Age Isn’t Just a Number**
  - Demographics and economic performance
Sapping Energy
 Depths of Decline

- Crude prices have fallen by two-thirds in 18 months
- Production continues to expand

![Oil and Gasoline Price Trends](chart.jpg)

Sources: Bloomberg, EIA
No Relief in Sight

- Running out of storage capacity
- This is a supply story

U.S. Crude Oil Inventories

Oil Supply and Demand Growth

Sources: Department of Energy, BP, Northern Trust
Pain Points

- Social benefits and interest payments must be sustained
- How long can the “game” go on?

Oil Producers: Fiscal “Breakevens”

Saudi Arabia: Foreign Reserves

Sources: IMF, Haver Analytics
The Benefits of Cheap Fuel

- The proceeds have not been used to enhance savings
- Spending outside of retail on rent and health care

U.S. Household Trends

How Have Consumers Spent Gasoline Savings?

- Sources: Haver Analytics, JP Morgan Institute
Exposure to Energy

- Energy lending is only 3% of total lending at U.S. banks
- Most credit has been sourced from the markets

Energy Loans as a Percent of Total Bank Loans

- Wells Fargo: 2%
- Morgan Stanley: 4%
- JPMorgan: 2%
- Goldman Sachs: 2%
- Citigroup: 4%
- Bank of America: 2%

High Yield Bond Spreads

- Ex-Energy
- Energy

Sources: Reuters, Bloomberg, Haver Analytics
China’s Challenges
China: Seeking Sustainability

- Slowing pace of growth
- Heavy industry hindered by slow global demand

**China: Real GDP Growth**

- **QOQ Annualized**
- **YOY**

**China: Industrial Production**

Source: Haver Analytics
China: The Challenge of Managing Leverage

- Credit at all levels has been growing very rapidly

**China: Credit vs. GDP Growth**

- Nominal Growth
- Private Sector Credit Growth

**China: Local Government Debt**

Sources: Wall Street Journal, Haver Analytics
Controlling Capital

- Money has been leaving China
- Pressure on asset and currency values

China: Capital Outflows

Sources: Goldman Sachs, Haver Analytics

China: Foreign Exchange Reserves
Potential Contagion

- Dependence on China and commodities drives weakness
- Direct U.S. exposure is modest, indirect exposure is large

**EMs: Exports to China**

- Oman
- South Korea
- Chile
- Peru
- Brazil
- Saudi Arabia
- Malaysia
- Thailand
- Colombia
- Vietnam
- Indonesia
- South Africa
- Russia

**Currency Depreciation Since May**

- Russia
- Colombia
- Kazakhstan
- Zambia
- Malaysia
- Chile
- Brazil
- Mexico
- Turkey
- South Africa
- Indonesia
- South Korea

**Source:** IMF, Haver Analytics
Central Strategies
Challenges for Central Bankers

- Global forces challenge local policy
  - Can central banks control inflation as effectively as they used to?

- Risking addiction to extraordinary measures
  - At some point, economies need to demonstrate self-sufficiency

- Balancing mandates
  - Currency control, financial stability, inflation, etc.

- Maintaining independence
  - The extremes of policy have attracted more attention from politicians

- Communicating effectively
  - The most honest outlook is also the least helpful to markets
Current Interest Rates

- Monetary policy is very easy in developed markets
- Safe assets are popular...at any price

Sources: Haver Analytics, Bloomberg
The Fed’s Dual Mandate

- Joblessness has fallen sharply in the last two years
- Inflation has been creeping up

Sources: Bureau of Labor Statistics, Bloomberg

U.S. Inflation

Target
U.S. Credit Creation and Capital

- The banking channel is open
- The basis for taking risk has been reinforced

**U.S. Lending Growth**

**Tier 1 Capital Ratio**
Top 10 U.S. Banks

Sources: Federal Reserve, SNL, Haver Analytics
Draghi’s Dilemma

- Clean balance sheets facilitate credit creation
- Monetary policy cannot compensate for poor capital

Eurozone Lending

Non-Performing Bank Loans

Source: Haver Analytics. IMF Financial Sector Indicators
A Few Words on Negative Interest Rates

- Less Stigma than 2008
  - Little, if any hoarding of currency
  - Institutional markets have adjusted comfortably

- Quantitative Easing may have lost its luster
  - Successive rounds have been less effective
  - Central banks are unnatural asset managers

- Some complications to respect
  - Retail depositors may not react well
  - Money market mutual fund dislocations
  - System constraints

- For the U.S., a remote possibility for now
Systemic Issues?

- CRE Lending (left)
  - Standards recently tightened

- Cyber Security
  - Trends in payments and information flow

- Asset Managers
  - The new shadow banking system?

- A Prolonged Search for Yield
  - Investors gravitate towards asset classes they are not naturally comfortable with

Source: Federal Reserve
Aging Gracefully
Slow Population Growth

- Modest growth and shifting composition across markets
- Potential for a shrinking labor force

World Population Growth

Sources: Bureau of the Census, CBO

U.S. Labor Force Participation Rate

Projected
Sustaining Population

- Promoting fertility rarely works
- Accepting new entrants successfully is key

**Fertility Rates Per Woman, 2013**

<table>
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<tr>
<th>Region</th>
<th>Rate</th>
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<tr>
<td>Eurozone</td>
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<td>U.S.</td>
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**Immigrant Population, 2013**

- Canada: 20%
- Ireland: 15%
- U.S.: 10%
- Germany: 10%
- U.K.: 10%
- Japan: 5%
- China: 5%

Sources: CIA, United Nations
The Long-Term is Here

- Aging populations can stress retirement systems
- Most Americans are woefully unprepared

Social Security Trust Fund Ratio
(Assets as a % of Annual Benefits)

State Pension Funds

Sources: Social Security Administration, Pew Center
Our Expectations


<table>
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<th>2013</th>
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<tr>
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<td>3.00</td>
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Exchange rates (EOP)
- EUR/USD: 1.09, 1.08, 1.07, 1.05
- GBP/USD: 1.49, 1.50, 1.48, 1.47
- USD/JPY: 120.3, 123.0, 125.0, 122.5
- USD/CNY: 6.49, 6.55, 6.60, 6.60

F: Forecast
EOP: End of period
Parting Thoughts

- The global outlook is cloudy
  - We expect China to avoid a hard landing

- Performance will continue to be somewhat uneven
  - Some regions and sectors are further along

- Risks to the outlook are varied
  - Potential for further instability