Upstate New York Regional Advisory Council Meeting
Monroe Community College - Downtown Campus
321 State Street
Rochester, NY
Tuesday, September 26, 2017

AGENDA

10:30am-10:35am  Introductory Remarks
                    Anand Marri, Vice President

10:35am-11:05am  The National Economy
                    Richard Peach, Senior Vice President

11:05am-11:35am  International Update
                    Matthew Higgins, Vice President

11:35am-12:05pm  Regional Update
                    Jaison Abel, Research Officer

12:05pm  Adjourn to High Falls Room B, 3rd Floor

12:10pm  Lunch

12:10pm-1:40pm  Round Table Discussion with
                    William Dudley, President

Your experiences can give us insight into current economic conditions.

Questions for discussion with President Dudley:

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

1. Has your firm experienced an increase in demand in recent months?
2. Has demand for your product or service increased sufficiently that you increased or plan to increase employment by the end of 2017?
3. Has demand for your product or service increased sufficiently that you plan to increase investment in plant and equipment by the end of 2017?
4. Do you anticipate any change in your ability to access credit for the remainder of this year?
5. How is the labor market in meeting your needs?

1:40 pm  Adjourn
Upstate New York Regional Advisory Board
Monroe Community College - Downtown Campus
321 State Street
Rochester, NY
Tuesday, September 26, 2017

ATTENDEE LIST

Board Members

Aminy Audi  
CEO  
L. & J.G. Stickley

Bridget-Ann Hart  
President & CEO  
KPH Healthcare Services, Inc.

Scott Bieler  
President & CEO  
West Herr Automotive Group, Inc.

Dr. Anne Kress  
President  
Monroe Community College

Tim Busch  
President & CEO  
Nexstar Broadcasting Group, Inc.

Jordan Levy  
NY Partner  
Softbank Capital

Lynne Marie Finn  
CEO  
Superior Workforce Solutions, Inc.

Linda MacFarlane  
President & CEO  
Community Loan Fund of the Capital Region

Kenneth M. Franasiak  
Chairman  
Calamar

Larry Kessler  
Founder & Co-Owner  
Kessler Group, Inc.

Federal Reserve Bank of New York

William Dudley  
President

Michael Nelson  
SVP, Assistant General Counsel, Legal

Richard Peach  
SVP, Research & Statistics

Matthew Higgins  
VP, Integrated Policy Analysis

Anand Marri  
VP and Head of Outreach & Education

Julia Gouny  
Officer and Deputy Chief of Staff, Executive Office

Jaison Abel  
Officer & Economist, Research & Statistics

Tony Davis  
Officer, Community Engagement, Outreach & Education

Chelsea Cruz  
Associate, Community Engagement, Outreach & Education

Betsy Bourassa  
Associate, Media Relations, Communications & Outreach
Overview

• The US economy appears to be regaining its footing after suffering a significant shock beginning in mid to late 2014.

• US labor market is showing classic signs of being at or near full employment yet growth of labor compensation remains surprisingly low.

• Core inflation has slowed since the beginning of 2017. Is this a transitory phenomenon or something more fundamental?
Growth of Real GDP

Source: Bureau of Economic Analysis

Note: Shading shows NBER recessions.
Nominal Trade-Weighted Value of US$ and Rig Count

Active Oil Rigs

Rig Count (left axis)

Broad Trade-Weighted Exchange Value of US $ (right axis)

Source: Federal Reserve Board and Baker Hughes

Note: Shading shows NBER recessions.
Surveys of Manufacturing Activity

Index Level

Source: IHS Markit and Institute for Supply Management via Haver Analytics

Note: Shading shows NBER recessions.
Labor Market Indicators

*Source: Bureau of Labor Statistics via Haver Analytics*

*Note: Shading shows NBER recessions.*
Employment Cost Index: Private Industry Workers

4 Qtr % Change

Source: Bureau of Labor Statistics via Haver Analytics

Note: Shading shows NBER recessions.
Labor Costs in the Nonfarm Business Sector

Index (100 = 2009)

Source: BLS; Haver.

Note: Shading shows NBER recessions.
Potential GDP

<table>
<thead>
<tr>
<th>Time Period</th>
<th>Potential GDP Growth</th>
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<tbody>
<tr>
<td>2000 – 2007</td>
<td>2.7%</td>
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<tr>
<td>2010 – 2016</td>
<td>1.4%</td>
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<tr>
<td>2016 – 2022</td>
<td>1.7%</td>
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</table>

Source: Bureau of Economic Analysis, Congressional Budget Office via Haver Analytics

Note: Shading shows NBER recessions.
Measure of Underlying PCE Price Inflation

12 Month % Change

FOMC Objective for Headline PCE Inflation

Core PCE

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 via Haver Analytics

Note: Shading shows NBER recessions.
Owner’s Equivalent Rent

% Change

% Change

Year to Year OER

3-month Annualized OER

Source: Bureau of Labor Statistics via Haver Analytics

Note: Shading shows NBER recessions.
CPI-U: Wireless Telephone Services

% Change

Source: Bureau of Labor Statistics via Haver Analytics

Note: Shading shows NBER recessions.
CPI-U: Prescription Drugs

Source: Bureau of Labor Statistics via Haver Analytics

Note: Shading shows NBER recessions.
Core Goods CPI and Nonpetroleum Import Price Index

% Change – Year to Year

% Change – Year to Year

Source: Bureau of Labor Statistics via Haver Analytics

Note: Shading shows NBER recessions.
Actual and Expected Fed Funds Target

Source: Federal Reserve Board
Reference Charts
Saving and Investment Balance

Source: Bureau of Economic Analysis via Haver Analytics

Note: Shading shows NBER recessions.
Global Economic Outlook

Upstate New York Regional Advisory Board
Matthew Higgins, 26 September 2017

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.

Roadmap

- Update on the global economic and industrial cycle
- Ongoing struggle to meet inflation objectives in the advanced economies
- Economic performance and risks in Canada
- Chinese financial sector reform update
Global GDP Growth and Composite PMI

Correlation = 0.83

Sources: Eurostat, Markit Economics

Citigroup Economic Surprise Indexes

*Weighted by series' historical FX impact
Evolution of Global Market Growth Forecasts

Sources: Blue Chip Economics, Consensus Economics. Figures are GDP-weighted averages for five AEs (with the euro area country as one) and 25 EMMEs.

Global Manufacturing PMI

Diffusion Index

Source: Markit Economics.
Global Industrial Production and Export Growth

Source: CPB World Trade Monitor.

Global Industrial Production and Trade Volume Growth

Source: CPB World Trade Monitor.
**G-3: Core Consumer Price Inflation**

- **United States**
- **Euro Area**
- **Japan**

Sources: BEA, Eurostat, BoJ. U.S. inflation measured using the PCE index.

**Advanced Economy CPI Inflation**

- **Core**
- **Headline**

Sources: national statistical agencies, OECD. Series are GDP-weighted averages for U.S., euro area, Japan, United Kingdom, Canada, Australia, New Zealand, Denmark, Norway, Sweden and Switzerland.
Advanced Economy Unemployment Rates

Sources: National sources, OECD. * NAIRU estimates from CBO for the U.S., the European Commission for euro area countries, the BoJ for Japan, the BoE for the UK, and from OECD elsewhere.

Euro Area: NAIRU Estimates Over Time

Source: OECD Economic Outlook database, various editions.
Central Bank Credit as a Share of GDP

![Graph showing Central Bank Credit as a Share of GDP for Japan, United States, and Euro Area from 2008 to 2018.]

Sources: BoJ, ECB, Federal Reserve.

Central Bank and Consensus Inflation Forecasts

<table>
<thead>
<tr>
<th></th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
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<tr>
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<tr>
<td>Consensus</td>
<td>0.5</td>
<td>0.7</td>
<td>0.8</td>
</tr>
</tbody>
</table>

1/ Central bank figures reflect FOMC members' median projection for core PCE inflation on a Q4/Q4 basis, from September. Consensus forecast is from Survey of Professional Forecasters, on a similar basis from August.

2/ Central bank figures reflect mean staff forecast for calendar year CPI inflation, from September. Consensus forecast is from Survey of Professional Forecasters, on a similar basis from July.

3/ Central bank figures reflect median policy board members' projection for CPI inflation ex. fresh food, on a fiscal year basis from July. Consensus forecast is from Bloomberg, on a calendar-year basis from September.
Canada: Real GDP Growth

Source: Statistics Canada

Canada and U.S.: Real House Prices

Credit to Private Nonfinancial Sector ( % GDP )

Sources: BIS, IMF.

China: Total Asset Growth by Bank Type

Source: CBRC
China: Net New Credit

Bank credit
Corp bonds
Municipal bonds
Additional shadow credit
Official shadow credit

China: Credit Impulse and Nominal GDP Growth

Change in percent of GDP
Nominal GDP
Credit impulse (3 quarters forward)

Estimate for end-2017
Change in new aggregate credit is as a share of GDP

Source: CEIC
Regional Economic Conditions

Jaison R. Abel, Research Officer

Upstate New York Regional Advisory Board Meeting – September 26, 2017

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Overview

- Over the past year, the pace of job growth has slowed to a crawl in upstate New York.

- Western New York has been especially weak, with steep declines in manufacturing, business services, and retail weighing on overall job growth.

- Focusing on wage inequality, the New York-Northern New Jersey region is home to some of the most unequal and least unequal metros in the country.
Regional Employment Trends

Indexes of Total Employment, August 2017

Source: U.S. Bureau of Labor Statistics and Moody’s Economy.com; data are early benchmarked by FRBNY staff.
Job Growth in Upstate New York

2010-2016 vs 2016-2017

Source: U.S. Bureau of Labor Statistics and Moody's Economy.com; data are early benchmarked by FRBNY staff.
Regional Wage Inequality

- Wage inequality has increased among all workers since the early 1980s.

- Some places are much more unequal than others, even within our own region.

- The most unequal places tend to be large metros with strong wage growth for those at the top of the wage distribution.
Annual Wages in the United States

Full-Time Workers, Constant 2015 Dollars

Note: Full-time workers are those aged 16 to 64 working at least 35 hours per week and 40 weeks per year.
Real Wage Growth in the United States

1980-2015 Percent Change by Percentile

What’s Driving Wage Inequality?

• Technological change and globalization have changed the pattern of demand for workers.
  
  ▪ Strong demand for skilled workers has resulted in larger wage gains for workers toward the top of the wage distribution.
  
  ▪ Demand for lesser skilled workers has been weaker, stifling wage growth for workers at the middle and bottom of the wage distribution.

• Other contributing factors include the decline in unions and the falling real value of the minimum wage.
The Geography of Wage Inequality

2015 90-10 Ratio for U.S. Metropolitan Areas

Sources: U.S. Census Bureau, Decennial Census (1980) and American Community Survey (2015).
Wage Inequality in the Region

2015 90-10 Ratios for 2nd District Metro Areas

Fairfield: 8.7
NYC-NNJ: 7.0
Ithaca: 6.5
Rochester: 4.8
Binghamton: 4.8
Syracuse: 4.8
Albany: 4.7
Glens Falls: 4.7
Buffalo: 4.5
Utica: 4.2

Note: The NYC-NNJ metro includes New York City, Long Island, parts of the Northern Suburbs, and much of Northern NJ.

Sources: U.S. Census Bureau, Decennial Census (1980) and American Community Survey (2015).
Why Are Some Places More Unequal?

• **Differences in Local Demand for Workers**
  - Demand for skilled workers has been particularly strong in some metros leading to outsized wage gains for those at the top.
  - Decline in demand for lesser skilled workers has been geographically concentrated, stifling wage growth for workers toward the middle and bottom of the wage distribution.

• **Agglomeration Economies**
  - Productivity benefits from clustering together in cities have been particularly strong for skilled workers located in large metros.

• **Migration**
  - Skilled workers are increasingly moving to large metros that offer urban amenities and higher wages.
Larger Metros Now Tend to Be More Unequal than Smaller Metros

Sources: U.S. Census Bureau, Decennial Census (1980) and American Community Survey (2015).
Real Wage Growth in U.S. Metros
1980-2015 Percent Change by Percentile

Real Wage Growth in Upstate New York
1980-2015 Percent Change by Percentile

Summary

• Wage inequality has increased in nearly every metro since the early 1980s, though it has increased much more in some places than others.

• The most unequal places tend to be large metros with strong demand for skill, agglomeration economies, and appeal for skilled workers (e.g., NYC-NNJ Metro).

• The least unequal places tend to have lackluster wage growth across the board, due in large part to weak demand (e.g., most metros in upstate New York).