Federal Reserve Bank of New York  
33 Liberty Street, New York, NY 10045  

Second District Advisory Council  

Thursday, March 5, 2020  

<table>
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<tr>
<th>Time</th>
<th>Session</th>
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| 10:30 a.m. – 10:40 a.m. | Welcome Remarks, John Williams, President & CEO  
                      | Committee Protocols, Claire Kramer Mills, AVP                          |
| 10:40 a.m. – 10:55 a.m. | National Economy Update, David Lucca, VP                                |
| 10:55 a.m. – 11:10 a.m. | International Update, Matthew Higgins, VP                               |
| 11:10 a.m. – 11:40 a.m. | Facilitated Discussion, Claire Kramer Mills, AVP                        |
| 11:40 a.m. – 11:45 a.m. | Concluding Remarks, John Williams, President & CEO                     |
ATTENDEE LIST

SDAC Advisory Members

Donnel Baird  
Founder & CEO  
BlocPower

Jaswinder Chadha  
President & CEO  
Axtria, Inc.

Michellene Davis  
EVP, Chief Corporate Affairs Officer  
RWJBarnabas Health

Lynn Marie Finn  
President & CEO  
Broadleaf Results

Sarah LaFleur  
Founder & CEO  
M.M. LaFleur

Federal Reserve Bank of New York

John Williams  
President & CEO

Michael Strine  
First Vice President

Jack Gutt  
EVP, Communications & Outreach

David Erickson  
SVP, Outreach & Education

Rosanne Notaro  
VP, Legal

David Lucca  
VP, Research & Statistics

Matthew Higgins  
VP, Research & Statistics

Jaison Abel  
AVP, Research & Statistics

Claire Kramer Mills  
AVP, Outreach & Education

Tony Davis  
Officer, Outreach & Education

Edison Reyes  
Associate, Outreach & Education

Rebecca Landau  
Senior Analyst, Outreach & Education

Melanie Littlejohn  
VP NY Customer & Community Engagement  
National Grid

Steve Priest  
EVP & CFO  
JetBlue Airways Corp.

Anthony E. Shorris  
John Weinberg/Goldman Sachs Visiting Scholar & Senior Advisor  
Princeton University, McKinsey & Company

Federico Stubbe, Jr.  
President  
PRISA Group
U.S. Economic Conditions
David Lucca

March 2, 2020

The views expressed here are those of the presenter and do not necessarily represent those of the Federal Reserve Bank of New York or the Federal Reserve System.
Overview

- Real GDP grew 2.1% (annual rate) in 2019:Q4:
  - Growth in personal consumption expenditure moderated, residential investment picked up but business investment declined for the third quarter in a row.
- Labor market remained strong in January; inflationary pressures remained muted.
- Significant uncertainty stemming from increased confirmed cases of the new coronavirus disease (COVID-19) outside China.
Real GDP Growth Fluctuating Around 2%

Note: Data through 2019:Q4. Shading shows NBER recessions. Source: BEA.
Consumer Spending Moderated

Note: Data through January 2020. Annualized consumption growth from three-month average level over three month prior. Savings rate as percent of disposable income. Source: BEA.
Consumer Confidence Remained High

Index


Labor Market Remained Strong

Note: Data through January 2020. Shading shows NBER recessions. Source: BLS.
PCE Inflation Remained Muted

12 Month Percent Change

Note: Data through January 2020. Shading shows NBER recessions. Source: BEA.
Note: Data through February 2020 except for ISM non-manufacturing. PMI non-manufacturing is flash estimate. Source: IHS Markit and Institute for Supply Management.
Increased COVID-19 Cases Outside China

Note: Confirmed cases through March 1. Except for China and rest of Asia, cases on the right axis. Source: Johns Hopkins CSSE.
Sharp Movements in Financial Conditions

Note: Data through February 28. Source: Federal Reserve Board, Financial Times.
Global Economic Outlook and Risks

Second District Advisory Council
Matthew Higgins, 5 March 2020

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Roadmap

- Global business conditions before the COVID-19 outbreak
- Economic impact of outbreak in China
- Early economic echoes outside China
- Lessons from prior global pandemics
Global growth was sluggish ahead of virus outbreak

Quarterly percent change, annualized

Source: national sources, staff calculations. All series is a GDP-weighted average for the euro area, Japan, UK, the Nordic countries, Switzerland and Australia. EME ex. China series is a GDP-weighted average for 24 countries.

Chinese surveys show plunge in activity

NBS purchasing managers’ indexes (> 50 signals expansion)

Source: China Federation of Logistics and Purchasing.
**Chinese daily indicators show little rebound in activity**

- **Passenger volume (persons x hours, in millions)**
  - Sources: Wind, Ministry of Transportation, UBS. Index includes rail, highway, waterway and air transport. Day 1 of Chinese New Year is Jan. 25 in 2020, and various dates in prior years.

**Daily coal consumption reflects factory shutdowns**

- **Coal consumption at six major power generators (10,000 metric tons)**
  - Source: Wind, Standard Chartered. Day 1 of Chinese New Year is Jan. 25 in 2020, and various dates in prior years.
China occupies key role in global production, trade

Sources: World Bank World Development Indicators, IMF Direction of Trade Statistics.

Global survey data weakened in February

Source: Markit Economics. Series is a GDP-weighted average for roughly 45 economies.
Manufacturing and services both contracted

Diffusion indexes, > 50 signals expansion

Source: Markit Economics.

Manufacturing new orders point to further weakness

Diffusion indexes, > 50 signals expansion

Source: Markit Economics, JPMorgan.
Growth in EMEs followed see-saw pattern during SARS

GDP growth in Hong Kong, Singapore and Taiwan (annual rate)

Hospitality and transport saw the sharpest swings

Hong Kong, Singapore and Taiwan, Selected
GDP Components (percent change, SAAR)

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<tbody>
<tr>
<td>Goods Producing</td>
<td>-4.1</td>
<td>-6.8</td>
<td>20.8</td>
</tr>
<tr>
<td>Trade</td>
<td>1.1</td>
<td>-11.6</td>
<td>29.4</td>
</tr>
<tr>
<td>Hotels, Restaurants</td>
<td>-1.7</td>
<td>-41.7</td>
<td>119.5</td>
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<tr>
<td>Transport &amp; Comm.</td>
<td>13.4</td>
<td>-19.2</td>
<td>34.5</td>
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<tr>
<td>Financial Services</td>
<td>-8.3</td>
<td>20.0</td>
<td>25.7</td>
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1/ Singapore and Taiwan. Sources: Local statistical agencies, via Haver Analytics. Individual country percent changes weighted by 2003 $U.S. GDP.
U.S. economy slumped during 1918-19 pandemic

U.S. industrial production and trade (standardized*)

Source: NBER Macrohistory Database. * Series shows normalized deviations from average activity levels (mean = 0.0, STD = 1.0).

Reference Charts
Global industrial activity has slumped since mid-2018

Trade growth has also slumped
Core inflation has been low and stable worldwide

Source: Federal Reserve Bank of Dallas. Core CPI excludes food (or fresh food) and energy. Series are GDP-weighted averages.