The Future of Potential Output Growth in the U.S. Economy

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Remarks at Panel Discussion
Western Economic Association

Monday July 1, 2019
2:30 pm - 4:15 pm
Incredibly Important Topic

• Potential Output is needed to distinguish:
  • Supply side versus demand side policy
    • Actual Y goes up and down relative to potential Y*
  • But potential has its own ups and downs
    • It’s policy-dependent!
    • Secular stagnation or pro-growth policy?
• Used to determine best policy going forward
  • Monetary policy: a key factor in Taylor rule
  • Fiscal policy: cyclically-adjusted deficit
• Consider four examples
  • Revised down in 1970s
  • Revised up in 1990s
  • Revised down in 2007-16
  • Needs to be revised up now
The 1960s and 1970s

The Output Gap in Real-Time and Final Data

The Evolution of History During the 1970s
Output Gap Measurement

Concerns about Potential Output in the 1960s and 1970s

• Started at CEA in ‘61, but became politicized by late ‘60s
• Serious economic analysts—like Burns and Greenspan—paid no attention to it
  – The series showed a GDP gap of 15 percent in the mid 1970s—comparable to the Great Depression!
• Economists knew that even the ‘77 revision was too small
  – Done by a lame-duck CEA that pulled back from staff estimates
The 1980s and 1990s

  - Growth rate is 3.1% from 1995.3 to 2006.4
  - Growth rate is 2.1% from 1995.3 to 2006.4

Source: Alfred, St. Louis Fed
Potential GDP 2% CBO 1996

real GDP

1995Q3
Billions of 1992 dollars

- Real GDP
- Potential GDP 3%
  - CBO 2000
- Potential GDP 2%
  - CBO 1996


Potential GDP 3% and Potential GDP 2% are projections from CBO sources.
The 2000s
(Period of Great Recession and Slow Recovery)

- **CBO 2007**: Real Potential GDP; Vintage: 2007-01-24, Billions of Chained 2000 Dollars, Spliced to 2007Q1 due to different base year
- **CBO 2019**: Real Potential GDP from Fred, June 2019

Source: Alfred, St. Louis Fed
Billions of 2012 dollars

Potential GDP
CBO 2007

Real GDP

07 08 09 10 11 12 13 14 15 16 17

15,000 16,000 17,000 18,000 19,000 20,000 21,000 22,000 23,000 24,000


Real GDP

Potential GDP

CBO 2007
Billions of 2012 dollars

Potential GDP
CBO 2007
Potential GDP
CBO 2019
real GDP
First Principles of Economic Policy

- predictable policy framework based on the
- rule of law with
- strong incentives drawn from reliance on the
- market system and a clearly
- limited role for government.
Shifting Policy Principles

• The 1960s and 1970s
  – Shifting away from key principles
• The 1980s and 1990s
  – Swinging back toward the principles
• The early 2000s
  – Veering away again
• The Future
  – Swinging back toward the principles?
The Future

• July 2017, Cogan, Hubbard, Taylor, Warsh
  • Should revise potential growth up if policy changes
  • real potential GDP growth = 3.0% per year
  • 2.0% productivity growth & 1.0% employment growth

• Compared with CBO:
  • real potential GDP growth = 1.8% per year
  • 1.3% productivity growth & 0.5% employment growth

• Employment growth at 1.0% rather than 0.5% because
  • “labor force participation rate will remain constant compared to CBOs assumption that…rate will decline.”
    • Constant because a 0.4 percent per year decline due to aging population, would be offset by 0.4 percent per year increase in age-specific labor force participation rates due to policy
  • Population assumed to increase by 1% per year (ERP 2017)
Policy Reform Buckets

• Tax reform
• Regulatory reform
• Monetary reform
  • International monetary reform
• Budget reform
Tax Reform

• 2017 Act lowered tax rates on business
  – 35% to 21% corporate rate
  – Expensing (at least for 5 years)
  – Lower tax rate on small business
  – Territorial tax system and low rate for repatriation

• All reduce cost of capital, thus raise investment, productivity, wages, and economic growth

• Personal side:
  – Simplification
  – Lower rates, expand base (deductibility of SALT)
Regulatory Reform

- Executive Orders
- Using the Congressional Review Act
- Appointments
  - Ajit Pai (FCC), Jay Clayton (SEC), Randy Quarles (Fed), Joseph Otting (OCC), Jellena McWilliams (FDIC), Neomi Rao (OIRA), CFPB (Mick Mulvaney), Rick Perry (Energy)
- Legislation passed
  - Economic Growth, Regulatory Relief, Consumer Protection Act
  - Lifts threshold from $50B to $250B for TBTF and stress tests
- Legislation still needed
  - Financial Institution Bankruptcy Act (Chapter 14)
Staffing of Federal Regulatory Agencies

(Includes TSA employees - about 53,000)
Staffing of Federal Regulatory Agencies

Staffing of Federal Regulatory Agencies

Monetary Policy

• Fed began to get back on track in 2017 and 2018
  • Normalizing back towards rule-like policy that worked well in the past
  • Actions, appointments, speeches, publications
United States

Source: Bank for International Settlements, 2018
• **Jan 18, 2017**: Janet Yellen describes the Fed’s strategy
  • When economy is weak...we lower short-term interest rates
  • When inflation too high... we increase interest rates
• **Jan 19, 2017**: Yellen compares strategy with the Taylor rule and other rules, and explains the differences.
• **Feb 11, 2017**: Stanley Fischer gives same message
• **July 7, 2017**: *Monetary Policy Report*
  • A whole new section on “Monetary Policy Rules”
• **Feb 23, 2018:** *Monetary Policy Report*, with new chair, again includes section on policy rules

• **Feb 27 & Mar 1, 2018:** In first testimony as Fed Chair, Jay Powell says that
  • “I find these rule prescriptions helpful.”

• Emphasis on rules does not go unnoticed:
  • Larry Kudlow: “I think that’s progress.”

• **Mar 8, 2018:** Fed creates web site “Monetary Rules”

• **July 13, 2018:** *Monetary Policy Report*

• **Nov 27, 2018:** Vice Chair Clarida “Economic research suggests that monetary policy should be 'data dependent.' The seminal reference is Taylor (1993), “Discretion versus Policy Rules in Practice,”

• **Feb 22, 2019:** *Monetary Policy Report*
### Monetary Policy Rules

<table>
<thead>
<tr>
<th>Rule</th>
<th>Equation</th>
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<tbody>
<tr>
<td><strong>Taylor (1993) rule</strong></td>
<td>$R_t^{T93} = r_t^{LR} + \pi_t + 0.5(\pi_t - \pi^{LR}) + (u_t^{LR} - u_t)$</td>
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<tr>
<td><strong>Balanced-approach rule</strong></td>
<td>$R_t^{BA} = r_t^{LR} + \pi_t + 0.5(\pi_t - \pi^{LR}) + 2(u_t^{LR} - u_t)$</td>
</tr>
<tr>
<td><strong>Taylor (1993) rule, adjusted</strong></td>
<td>$R_t^{adj} = \text{maximum}{R_t^{T93} - Z_t, 0}$</td>
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<tr>
<td><strong>Price-level rule</strong></td>
<td>$R_t^{PL} = \text{maximum}{r_t^{LR} + \pi_t + (u_t^{LR} - u_t) + 0.5(PL\text{gap}_t), 0}$</td>
</tr>
<tr>
<td><strong>First-difference rule</strong></td>
<td>$R_t^{FD} = R_{t-1} + 0.5(\pi_t - \pi^{LR}) + (u_t^{LR} - u_t) - (u_{t-4}^{LR} - u_{t-4})$</td>
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With Fed Normalizing, International Monetary Reform Could Follow

• Each central bank would describe & commit to a strategy for setting policy instruments.
  • Raghu Rajan: “what we need are monetary rules.”
  • Mario Draghi: “We would all clearly benefit from...improving communication over our reaction functions...”

• Attractive because each country can choose its own strategy and contribute to global stability.
International monetary arrangements

• Rules-based monetary policy
• Flexible exchange rates
• Open capital markets
  • EPG report to G20
Budget Reform

Percent of GDP

Debt After 2017 Tax Act
Debt Before 2017 Tax Act

Net Interest Payments on Debt

Left scale
Right scale

2020 2025 2030 2035 2040 2045
Is it Working?

Growth Projections (Annual Rates)

Productivity + Employment = real GDP

CBO: 1.3 + 0.5 = 1.8
Reform: 2.0 + 1.0 = 3.0
Productivity Growth from Quarter One Year Ago (nonfarm business)
percent

Labor force participation rate

Old trend

New trend

Old slow-growth assumption

-- May 2019
Billions of 2012 dollars

Potential GDP

real GDP

2018Q1

1.9% New

3.0%
Billions of 2012 dollars

2018Q1

New Potential GDP 3.0%

CBO Potential GDP 1.9%

real GDP