Is the Business Cycle Dead?
Anticipating the Next Recession

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NABE Annual Meeting
September 30, 2018
Anticipating the Next Recession: A Preview

- Economic Expansion Has Reached 112 Months, record is 120 months
  - March 1991 to March 2001
- Expansions Perpetuate Themselves with a Self-Generating Mechanism
- Something Must Interrupt that Mechanism for a Recession to Occur
- What Killed Previous Expansions?
- An Expansion-Killing Checklist for 2020-21
Length of Expansions: Current vs. Previous Five Longest

- June 2009-Sept. 2018: 112 quarters
- March 1991-March 2001: 120 quarters
- Nov. 1982-July 1990: 92 quarters
- Nov. 2001-Dec. 2007: 73 quarters
- Oct. 1949-July 1953: 45 quarters
The Current Economy: A Golden Moment

- “Golden” with low inflation and average GDP & GDI growth of 3.0 in 2018:Q1 and again in Q2
- Unemployment rate has fallen from 10 percent in October 2009 to 3.9 in August 2018
  - Below All Estimates of the NAIRU
- Core PCE Inflation at the Fed’s target of 2.0 percent
- How Low Can Unemployment Go?
  - 3.8% April 2000, 3.4% Fall-Winter 1968-69
  - 18 U.S. states have U rates at 3.5% or below
  - WI-MN-CO-VA 2.9 or 3.0%
Without a Negative Shock, Expansion is a Virtuous Circle

• Employment growth causes income to grow
• Income growth causes consumption spending to grow
• Higher consumption spending creates more jobs, more growth of employment
• Consumers don’t suddenly save most of their extra income, they spend it
Closeup of Consumption and Employment Growth Feeding Each Other

Year


C4 Real PCE

C4 Payroll Employment
Boosting the Expansion from 2% to 3% Growth: Fiscal Stimulus

- **Tax Cut Multiplier**
  - Corporate and personal tax cuts equal $150 Billion per Year, or 0.8 percent of GDP
  - Tax multipliers, 0.3 to 0.4, translates into extra 0.3 of GDP growth 2018-2019

- **Expenditure Multiplier**
  - $150 billion per year over 2 years, 0.8 percent of GDP
  - Spending multipliers, at least 1.0, translates into extra 0.8 of GDP growth 2018-2019
Federal Deficit / GDP
Since 1970
Federal Debt (Held by Public)/ GDP Including Trump Stimulus

Year

Adding to Economic Stimulus: The Ebullient S&P 500 Index
Stock Market Wealth Effect

- S&P 500 has increased 36% since Nov 8, 2016
- This represents about +$7 trillion in wealth
- How much of this wealth would have to raise consumption to boost GDP by half a percent?
- Answer: 1.5 cents spending per dollar of extra wealth
- Boost to GDP growth?
  - Fiscal policy +1.0 percent
  - Stock market +0.5 percent
- Implies Acceleration from 2.0 to 3.5 percent growth
- Fiscal expansion boosts dollar, cuts net exports, shaves growth forecast to 3.25 percent
What Killed Previous Expansions?

• Most common, high interest rates as Fed responded to rising inflation
  – Late 1950s, late 1960s, late 1980s

• Special category – oil shock inflation
  – In 1974 caused a recession as higher prices eroded purchasing power
  – In 1980 the Fed boosted rates to double digits

• Other special categories:
  – collapse of dot.com investment boom of late 1990s, together with stock market crash
  – Collapse of housing and excess leverage that led up to 2008-09 financial crisis.
Nouriel Roubini (Dr. Doom)
Checklist for Next Crisis

• His checklist rearranged
• (1) (2) Fiscal and stock market reversal
• (3) (4) Growth weakness in rest of the world
• (5) Once growth stalls, risk of illiquidity
• (6) Monetary policy and inflation
• Trump policy follies
  – (7) Tariffs cut growth and raises inflation
  – (8) Tech transfer, immigration, no infrastructure
  – (9) Unpredictable Trump responses to slowdown
• Fiscal and Monetary Policy are handcuffed
Reversal of Fiscal and Stock Market Stimulus

- If Democrats take the House, a future of fiscal stalemate
- Expenditure boost is a temporary two-year deal
- But Tax cuts won’t be reversed
- That removes the spur from 2% to 3% growth but doesn’t cause a recession
- Stock market collapse?
  - Flaws in Shiller price-earnings ratio
  - 10-year earnings average includes 2009-2010
- 2000-01 end of stock market bubble caused only 0.3% decline in GDP/GDI 2001:Q1 to 2001:Q4.
S&P Price-Earnings Ratio, Five-Year Earnings Average, 1970-2018
Total Debt/GDP Down From Peak (Corporate, Mortgage, Consumer)

Ratio of All Debt to GDP, 1947-2017

All Debt / GDP
Corporate Debt / Profits Below 1989, 2000

Corporate Debt as a Percent of Corporate Profits (Before Tax) at Business Cycle Peaks

- 1979: 127.70%
- 1989: 296.77%
- 2000: 350.39%
- 2007: 187.89%
- 2018: 286.16%
Weakness in Rest of World?

• Depreciating currencies, dollar-denominated debt crisis in some emerging markets
  – Turkey, Argentina, to lesser extent India and Indonesia
• Will be exacerbated by Fed’s gradual rate increases
• But most emerging markets have much higher dollar reserves than in 1997-98
• Crisis of 1997-98 reminds us of minimal feedback to U.S. economy
• Growth forecast of 3.25 already assumes some reduction in net exports
Interest Rates: Federal Funds and 10-Year Treasury Bonds, 1970-2018

10-Year Government Bond Rate

Federal Funds Rate
The Yield Curve: Precursor of Recession But Not Yet Negative
Outlook for Monetary Policy

• Strong support for tighter labor markets to attract re-entry of labor force dropouts
• In the absence of a significant upturn of inflation, Fed will maintain a slow pace of rate increases
• Consensus forecast for mid-2019, Federal Funds rate of 2.7 to 3.0
• Fed is reducing balance sheet, pushing up long-term rates and postponing inversion
• Achilles Heel: Fed’s inflation forecast
The Unemployment Rate and the NAIRU, 1970-2018

- Total Unemployment
- CBO Long Term NAIRU
Near-term Unemployment Outlook

• Since late 2009 unemployment rate has declined from 10.0 to 3.9 percent
• That’s a decline of 2/3 point per year to achieve 2.2 percent growth per year
• That pace of decline will take the U rate to 2.6 percent by summer 2020
• The Fed predicts inflation =
  • 2.0 2018 2.1 2019 and 2020
• Inflation has been quiescent but it’s not dead yet
Headline and Core Inflation, 1953-2018
A Close-Up Look at Inflation, 2007-2018

Headline Inflation

Core Inflation
My Nominee for Expansion-Killer

• Fed’s FF rate trajectory based on its own inflation forecast of 2.0 for 2018, 2.1 for 2019, 2020
• But core PCE inflation has already accelerated
  – 1.55 in five years to Dec 2017
  – 1.90 in six months to July 2018
• What if acceleration continues?
  – 2.3 in 2018 H2
  – 2.7 in 2019 H2
  – 3.1 in 2020 H2
• The Fed will react by raising rates faster than markets expect
• Markets will have a tantrum but won’t drop by half as in 2000-02 or 2007-09
Can Supply Meet Demand Growth? Supply Squeeze Will Raise Inflation

• 2.2 percent GDP growth since 2010 Made Possible by a Decline in U Rate from 10 to 3.9
• At some point the U Rate will stop declining
• How can the economy growth at 3.5% with a constant unemployment rate?
• Actual Growth Rate 2006-2016 = 1.3%
  – Productivity Growth 0.9%
  – Hours Growth 0.4%
Everything Depends on A Revival of Productivity Growth

- Productivity growth 0.7 percent for eight years since mid-2010 (GDP / total economy hours)
- Forecast for next 25 years in my book is 1.2 percent
- Big question: as labor markets tighten, will firms buy robots and other capital to replace workers?
- Evidence that trend productivity growth is faster when unemployment is low as in the 1960s and 1990s
- What likelihood that productivity growth will rise to accommodate faster demand growth?
Constant Productivity Trend Yields Little Procyclical Response

Actual and Assumed Productivity Change with Assumed Output Change, 2010:1 - 2021:4

- C4 LP Actual
- C4 LP Predicted
- C4AY
Required Excess in Hours Growth Over 2011-2018 Average

Actual and Simulated Hours Responses

-2 -1 0 1 2 3 4 5

C4 HP Implied
C4 HP
Hours Line
Average Hours
Conclusion About Productivity and Hours

• Growing hours at pace of 2011-2018 requires
  – Decline in U rate to 2.6% by mid 2020 OR
  – Faster growth in prime-age LFPR
  – Faster conversion of part-time to full-time work that raises hours per employee

• But that pace is not enough
  – Hours at 2011-2018 pace requires 1.6% productivity growth compared to 0.7% trend
  – Good news, 2018:H1 = 1.5%
Conclusion

• Removing fiscal and stock market stimulus will cause growth to slow, but not enough to cause a recession
• Achilles heel of outlook is the Fed’s forecast of **ABSOLUTELY NO INCREASE OF INFLATION**
• Aggregate supply for a 3.25 growth path requires
  – Continued decline of unemployment rate
  – Bounce back of productivity growth to 1.6% from 0.7%
• My prediction: higher inflation will shake financial markets even before the Fed acts
• Close call whether recession occurs in 2020-21, but no financial crisis