Economic Outlook: The Short and Long of It

*Charlotte Economics Club*

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First, some fine print…

The views and opinions expressed herein are those of the author. They do not represent an official position of the Federal Reserve Bank of Richmond or the Federal Reserve System.
Avant le deluge (of data), the big picture...

- Some recent weakness in:
  - Q1 GDP and consumer spending

BUT:

- Labor market continues to strengthen
  - Robust payroll numbers, uptick in participation
  - Unemployment rate continues to decline below natural rate

- Future growth expected to better
  - Strong industrial production
  - Strength in all major investment components
  - Data support generally solid Q2 GDP growth estimates
  - Inflation numbers likely to stabilize near target
Key Indicators

Some Softness in Recent Data
Note: Projection is the median, central tendency, and range from the June 2017 Summary of Economic Projections. Red dots indicate median projections. Projections of change in real gross domestic product (GDP) are from the fourth quarter of the previous year to the fourth quarter of the year indicated.

Source: Bureau of Economic Analysis via Haver Analytics & Federal Reserve Board
Household Spending

Percent change from previous quarter at annual rate

Source: Bureau of Economic Analysis via Haver Analytics
Key Question

Is this weakness transitory or not?
Household Net Worth

Source: Z.1 Financial Accounts of the United States via Haver Analytics
Disposable Personal Income & Expenditures

12 Month % Change

Real Disposable Personal Income

Real Personal Consumption Expenditure

April

Source: Bureau of Economic Analysis via Haver Analytics
Indexes of Non-Manufacturing Activity

Diffusion Index, percent

ISM (Left Axis)

Richmond Fed Service Sector Index: Revenues (Right Axis)

May 56.9

Source: Institute for Supply Management & Richmond Fed via Haver Analytics
Real Nonresidential Fixed Investment

Percent change from previous quarter at annual rate

Q1 11.4%

Source: Bureau of Economic Analysis via Haver Analytics
What are labor markets saying?
Payroll Employment

Quarterly average of monthly changes, thousands of persons

Monthly Change
- May: 138
- Apr: 174
- Mar: 50
- Feb: 232
- Jan: 216

Source: Bureau of Labor Statistics via Haver Analytics
A little perspective for what we should expect...
The Unemployment Rate, w. March FOMC projection

Notes: FOMC projection is the median, range, and central tendency for the Q4 levels, from the March 2017 meeting. Red dots indicate median projections.

Source: Bureau of Labor Statistics & Board of Governors via Haver Analytics
A little perspective for what we should expect...
The Unemployment Rate, w. June FOMC projection

Notes: FOMC projection is the median, range, and central tendency for the Q4 levels, from the June 2017 meeting. Red dots indicate median projections.

Source: Bureau of Labor Statistics & Board of Governors via Haver Analytics
Measures of Labor Utilization

- U3: Official Unemployment Rate
- U5: U3 + Discouraged + Marginally Attached
- U6: U5 + Involuntary Part-Time

Source: Bureau of Labor Statistics via Haver Analytics
We’re still quitting at rates indicative of optimism...

Note: *Percent of total employment. **Percent of total employment plus job openings.

Source: JOLTS via Haver Analytics
What are prices and wages saying?

Inflation and Inflation Expectations
Notes: FOMC projection is the median, range, and central tendency for Q4/Q4 percent changes, from the December 2016 meeting. Red dots indicate median projections.

Source: Bureau of Economic Analysis & Board of Governors via Haver Analytics
Personal Consumption Expenditure Price Index, w/ June FOMC projections

Notes: FOMC projection is the median, range, and central tendency for Q4/Q4 percent changes, from the June 2017 meeting. Red dots indicate median projections.

Source: Bureau of Economic Analysis & Board of Governors via Haver Analytics
Some pressure may be showing up in wages...

Employment Cost Index

Source: Bureau of Labor Statistics via Haver Analytics
Implications for Policy: Rates
“Taylor” Rule

Federal Funds rate  =  expected inflation
                  + natural rate
                  + $\alpha_1$ (inflation gap)
                  + $\alpha_2$ (employment gap)
Natural Rate of Interest

Sources: Laubach & Williams (2003), Lubik & Matthes (2015)
Hornstein-Kudlyak-Lange Non-Employment Index

By this benchmark, policy appears accommodative...

Sources: BLS, Board of Governors, BEA, CBO via Haver Analytics. Laubach & Williams (2003)
Treasury yield curve flattening: term premia are moving

Source: Board of Governors via Haver Analytics
Note: Each dot in the chart represents the value of an FOMC participant’s judgment of the midpoint of the appropriate target range (or the appropriate target level) for the federal funds rate at the end of the calendar year. Projections made for the March 2017 meeting.

Source: Board of Governors
June Projections

Note: Each dot in the chart represents the value of an FOMC participant’s judgment of the midpoint of the appropriate target range (or the appropriate target level) for the federal funds rate at the end of the calendar year. Projections made for the June 2017 meeting.

Source: Board of Governors
Information received since the Federal Open Market Committee met in May indicates that the labor market has continued to strengthen and that economic activity has been rising moderately so far this year. Job gains have moderated but have been solid, on average, since the beginning of the year, and the unemployment rate has declined. Household spending has picked up in recent months, and business fixed investment has continued to expand. On a 12-month basis, inflation has declined recently and, like the measure excluding food and energy prices, is running somewhat below 2 percent. Market-based measures of inflation compensation remain low; survey-based measures of longer-term inflation expectations are little changed, on balance.

Consistent with its statutory mandate, the Committee seeks to foster maximum employment and price stability. The Committee continues to expect that, with gradual adjustments in the stance of monetary policy, economic activity will expand at a moderate pace, and labor market conditions will strengthen somewhat further. Inflation on a 12-month basis is expected to remain somewhat below 2 percent in the near term but to stabilize around the Committee's 2 percent objective over the medium term. Near-term risks to the economic outlook appear roughly balanced, but the Committee is monitoring inflation developments closely.

In view of realized and expected labor market conditions and inflation, the Committee decided to raise the target range for the federal funds rate to 1 to 1-1/4 percent. The stance of monetary policy remains accommodative, thereby supporting some further strengthening in labor market conditions and a sustained return to 2 percent inflation.
In determining the timing and size of future adjustments to the target range for the federal funds rate, the Committee will assess realized and expected economic conditions relative to its objectives of maximum employment and 2 percent inflation. This assessment will take into account a wide range of information, including measures of labor market conditions, indicators of inflation pressures and inflation expectations, and readings on financial and international developments. The Committee will carefully monitor actual and expected inflation developments relative to its symmetric inflation goal. The Committee expects that economic conditions will evolve in a manner that will warrant gradual increases in the federal funds rate; the federal funds rate is likely to remain, for some time, below levels that are expected to prevail in the longer run. However, the actual path of the federal funds rate will depend on the economic outlook as informed by incoming data.

The Committee is maintaining its existing policy of reinvesting principal payments from its holdings of agency debt and agency mortgage-backed securities in agency mortgage-backed securities and of rolling over maturing Treasury securities at auction. The Committee currently expects to begin implementing a balance sheet normalization program this year, provided that the economy evolves broadly as anticipated. This program, which would gradually reduce the Federal Reserve's securities holdings by decreasing reinvestment of principal payments from those securities, is described in the accompanying addendum to the Committee's Policy Normalization Principles and Plans.

Voting for the FOMC monetary policy action were: Janet L. Yellen, Chair; William C. Dudley, Vice Chairman; Lael Brainard; Charles L. Evans; Stanley Fischer; Patrick Harker; Robert S. Kaplan; and Jerome H. Powell. Voting against the action was Neel Kashkari, who preferred at this meeting to maintain the existing target range for the federal funds rate.
Summary of key considerations at play right now--

Worry about being too accommodative:

- If increased activity is not accompanied by higher productive capacity, then existing resources are likely to be stretched
- Higher utilization of resources tends to generate higher costs of production, and, maybe, higher-than-desired inflation
- “Long and variable lags”! The 1960s?

BUT:

- Inflation target symmetric, and we’ve been under-running a bit
- Recent inflation-employment non-correlation: very low unemployment may not inevitably lead to higher inflation.
Implications for Policy: Balance Sheet
Where we’re at, and how we got here...

Federal Reserve Bank security holdings ($ billions)

- Red: Treasuries with maturity greater than one year
- Blue: MBS and Agency debt
- Green: Treasuries with maturity less than one year

Source: Haver Analytics

05/22/17
Normalization of Balance Sheet...

- “The Committee intends to gradually reduce the Federal Reserve's securities holdings by decreasing its reinvestment of the principal payments it receives from securities held in the System Open Market Account. Specifically, such payments will be reinvested only to the extent that they exceed gradually rising caps.”

- “The Committee currently anticipates reducing the quantity of reserve balances, over time, to a level appreciably below that seen in recent years but larger than before the financial crisis...”
  - June Addendum to the Policy Normalization Principles and Plans
The Long Run

Looking Back
GDP per capita—Very stable, but Great Recession clearly visible

Source: Bureau of Labor Statistics via Haver Analytics
The Great Moderation, still intact...

Source: Bureau of Labor Statistics via Haver Analytics
All despite huge sectoral changes...

Source: Bureau of Labor Statistics via Haver Analytics
...with no trend in unemployment Rate! We adjust.
Labor and Capital: Who Earns What?

Source: Bureau of Labor Statistics via Haver Analytics
Gov’t in Perspective 1: Tax Revenue/GDP

Source: Bureau of Labor Statistics and Bureau of Economic Analysis via Haver Analytics
Gov’t In Perspective 2: US Federal Debt/GDP Ratio

Source: Bureau of Labor Statistics and Office of Management and Budget via Haver Analytics
The Long Run

Looking Ahead: Fiscal Policy
Considerations

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<th>Consideration</th>
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<td>Huge obligations for the Federal gov’t. Absent entitlement reform, need to be nice to millennials?</td>
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<tr>
<td>Declining labor force participation</td>
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<td><strong>Productivity is slowing.</strong> This is a giant problem.</td>
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U.S. Debt in Historical Context

Source: Congressional Budget Office “The 2017 Long-Term Budget Outlook”
...While labor force participation is set to keep falling

Figure 13. Alternative Model Projections for the Labor Force Participation Rate, 2007–24

Source: Aaronson et al. (2014)
Decomposing Real GDP: Labor Productivity is slowing...

Source: Bureau of Economic Analysis and Bureau of Labor Statistics via Haver Analytics
What does this mean for interest rates in the long run?

- Slower productivity growth means lower long run rates (remember the natural rate pic I showed you!)

- High government debt means (all else equal) higher rates, lower investment, and lower wages in the long run too.

- High future tax rates to fund entitlements will slow growth
The Long Run

Looking Ahead: Robots!!
Fear of Technology

From Time Magazine, February 24th:
“The rise in unemployment has raised some new alarms around an old scare word: automation. ...While no one has yet sorted out the jobs lost because of the overall drop in business from those lost through automation and other technological changes, many a labor expert tends to put much of the blame on automation. ...Many of the losses in factory jobs have been countered by an increase in the service industries or in office jobs. But automation is beginning to move in and eliminate office jobs too. ... Today's new industries have comparatively few jobs for the unskilled or semiskilled, just the class of workers whose jobs are being eliminated by automation.”

(source: Tim Taylor, the Conversable Economist)
Fear of Technology

1961
The robots are coming...

- We are being afflicted with a new disease of which some readers may not have heard the name, but of which they will hear a great deal in the years to come—namely, technological unemployment” (Keynes, 1930).

- “Labor will become less and less important. . . . More and more workers will be replaced by machines. I do not see that new industries can employ everybody who wants a job” (Leontief, 1952).
...but are they taking over?

- How and where we work has changed dramatically over time.
- This has *not* been accompanied by a secular decline in labor share of income or a secular increase in unemployment.
- Is this time different?
  - Technological change has long been “skill-biased”
  - Job polarization: as routine jobs disappear, the demand for employees with the ability to do complex tasks may increase
  - But the sustained high skill premium suggests that we may be hitting a barrier
“Hollowing Out” of the Middle Class

Changes in occupational employment shares by education and sex, 1979–2007

Percentage change in occupational employment shares

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<tr>
<th>Occupation skill group</th>
<th>Males</th>
<th>Females</th>
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<tbody>
<tr>
<td>Low</td>
<td></td>
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<tr>
<td>Medium</td>
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<tr>
<td>High</td>
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High skill: Managerial, professional, and technical occupations
Medium skill: Sales, office/admin, production, and operators
Low skill: Protective service, food prep, janitorial/cleaning, personal care/services

Source: May/CDRG CPS data for earnings years 1979-2007. See note to Figure 12. The 10 broad occupations are classified as belonging to one of three broad skill groups

Source: David Autor, “The Polarization of Job Opportunities in the U.S. Labor Market”
Since the 1970s, supply response to skill-biased technological change has been weak. Unprecedented.

Source: Goldin and Katz (2009)
“An Unfinished Transformation”

- College graduation rates for young men born in the mid-1970s are similar to those for men born in the late 1940s.
- The educational attainment of 30-year-olds increased by only 0.8 years between 1980 and 2005.
- Many who enroll do not complete any degree within six years of completing high school.
- “Some college, no degree” is the fastest growing educational category in past 30 years: roughly 15% in 1980 to 29% in 2015.

“Robots and Jobs”

- Technological innovation can replace labor via automation or generate new types of jobs for workers.
- If capital is cheap relative to labor in the long run, automation will replace unskilled workers.
- If capital is **not** cheaper, technological advancement will produce new jobs to offset automation but could increase income inequality.
- Fundamental question may be: Who *effectively* owns the robots?

Sources: Acemoglu and Restrepo (2016) and Acemoglu and Restrepo (2017)
Takeaways

- Current short-term economy is growing reasonably, but inflation is a bit of a concern.
- Long-run looking back: Very steady growth. The U.S. is remarkably agile when it comes to absorbing technological change.
- Long-run looking ahead:
  - Productivity seems to be slowing down
  - Huge fiscal pressure
  - Technological change: “Is this time different?”