The views expressed are those of the author and do not necessarily reflect the views of the Federal Reserve Bank of Dallas or the Federal Reserve System
Outline

• A weakening global outlook - still on course to expand in 2020

• Fundamental drivers of long run prosperity
  • Lackluster productivity growth
  • Demographic headwinds

• Risks – Economic policy uncertainty (U.S. trade policy, Brexit, Italy), Debt, China

• Global business cycle and the US employment
Global real output growth has slowed down...

Source: International Monetary Fund.
... but it is still expected to pick up in 2020

Source: International Monetary Fund.
Despite low forecast disagreements...

Aggregated Country-Specific Standard Deviations of Real GDP Growth Forecasts

Note: The standard deviations of the forecasts are aggregated using PPP-adjusted GDP weights.
... substantial uncertainty clouds the outlook

- Forecasting next year’s growth has been subject to large historical errors (some economic developments cannot be well anticipated)

- Average error in forecasting next year global output growth is 1.1ppt (median 1.0ppt)

- Individual country forecasts tend to be less accurate

Sources: Chudik, Martínez-Garcia and Grossman (2018), April 2019 IMF WEO.
Forecast error magnitude (forecast accuracy) widely varies across countries

Percentage points

Average for Country Growth

Average for the Aggregated Global Growth

NOTE: Blue bars are country-specific averages of historically observed absolute values of one-year-ahead forecast errors (made each year in April).
Fundamental drivers of growth

• Productive capacity of a nation depends on three things:
  • Demographic developments
  • Capital stock, both physical & intangible
  • State of technology or productivity ("ideas")

• Demographic headwinds
  • Aging population (implications for labor force & strains on public finances)

• Low productivity growth
  • To be changed by the recent technological advances? AI, IoT, 5G, etc.
Stagnating productivity growth
(Utilization adjusted TFP growth)

1948-73 avg.: 2.1 percent
1973-95 avg.: 0.6 percent
1995-2007 avg.: 1.5 percent
2007-18 avg.: 0.4 percent
More people over 65 than under 5!
G7 countries are older and aging faster than the U.S.
A tipping point...

Working age population (15-64) as share of total (world)

Global peak: 2012 (0.66)
Tipping points by region

Working age population (15-64) as share of total

Share
Tipping points in the major economies...

Working age population (15-64) as share of total

**Country/Region peaks**
- Euro area: 1990 (0.68)
- Japan: 1992 (0.70)
- U.S.: 2008 (0.67)
- China: 2011 (0.74)

Global peak: 2012 (0.66)
Risks to the outlook

- A number of downside risks cloud the outlook
  - Policy uncertainty – Trade policy, Brexit
  - Debt (private and/or public)
  - China slowdown/rebalancing
  - Weaknesses in a number of emerging markets
  - Geopolitical tensions (Iran)
The world has changed!

GDP based on PPP, share of world total

On the eve of the Global Financial Crisis there was about as much economic activity taking place in the emerging market economies as in the advanced economies of North America, Europe and Japan.
The world has changed!

GDP based on PPP, share of world total

By some measures China became the world’s largest economy in 2014.
Impact of China slowdown on U.S. in 2000....

Percent, deviation from baseline

10% - 90% confidence bounds

China

US
...and today

Percent, deviation from baseline

10% - 90% confidence bounds

China

US
Smaller fire-power to deal with negative shocks compared with 2006?

• Public debt has increased significantly since the aftermath of the global financial crisis (with the exception of few economies)

• Policy interest rates at much lower levels compared to the pre-crisis period
Limited fiscal space across the OECD
Central bank policy rates at low levels

At its policy meeting at the end of January 2016 the BoJ adopted a negative interest rate of -0.10 percent on reserves.
Global business cycle and the U.S. economy

• How important is the rest of the world for the U.S. economy?

• U.S. trade openness (defined as exports plus imports as a share of GDP) has increased 3-fold since 1960, but remains at one of the lowest at 27% in 2018 across countries.

• Fluctuation in global output can explain significant part of the employment growth in U.S. states.
Globalization in reverse?
(U.S. exports and imports of goods and services as a share of GDP)

Great trade collapse
Share of state employment variation explained by global, national and residual state-specific shocks
Share of state employment variation explained by global, national and residual state-specific shocks

Global shock, avg = 24.8
National shocks, avg = 30.7
Share of state employment variation explained by global, national and residual state-specific shocks

Global shock, avg = 24.8
National shocks, avg = 30.7
Residual state-specific shocks, avg = 44.5

Percent
Summary

• Global business cycle *alone* explains about 25 percent of employment fluctuations, on average
  • Large differences across states
  • Range from a low of 0.3 percent in Alaska to 42.6 percent in Illinois
  • Texas: 34.9 percent

• Global and national business cycles *together* explain about 56 percent of employment fluctuations, on average

• About 44 percent of employment fluctuations (on average) cannot be accounted for by the global and national business cycles
  • Range from a low of 18.5 percent in North Carolina to 91.9 percent in DC
  • Texas: 40.3 percent
Effect of a 0.5% Negative Shock to Foreign Output on U.S. States’ Employment Level One Year Later

Average = -0.79

80% confidence interval
Conclusions

• Global growth has weakened
• Modal outlook is for a slight pickup in growth in 2020
• Risks:
  • Trade
  • China slowdown
  • Europe: BREXIT, Italy
  • Black swans