The presentation draws from the findings of the October 2014 WEO, Ch. 3.

DISCLAIMER: THE VIEWS EXPRESSED IN THIS PRESENTATION ARE THOSE OF THE PRESENTER AND DO NOT NECESSARILY REPRESENT THOSE OF THE IMF OR IMF POLICY.
Setting the Scene

- **Advanced economies**: persistent slack
- **Developing economies**: infrastructure bottlenecks
- **All economies**: concerns about long-run potential

Medium-Term Growth Projections by WEO Vintage

The Role of Public Investment-infrastructural
Public capital has not kept pace with economic activity.
Large gaps in the quantity of infrastructure in developing economies; quality is deteriorating in advanced economies

1. Electricity Generating Capacity (kilowatts per 100 people), 2010

2. Roads (kilometers per 100 people), 2010

Quality of Infrastructure

- Germany
- France
- United States
- Japan
- Canada
- United Kingdom
- Italy
What are the Macroeconomic Effects of Public Investment?

- Identify unanticipated changes to public investment as the forecast error of public investment as a share of GDP (FE) (Auerbach and Gorodnichenko, 2012, 2013)

- Trace the dynamic response of output (debt, private investment) to these unanticipated changes

\[ y_{i,t+k} - y_{i,t} = \alpha_i^k + \gamma^k + \beta^k FE_{i,t} + \epsilon_{i,t} \]
Public investment boosts output

- Impact of 1% of GDP public investment increase.
- GDP up 0.4 percent at t=0 and 1.5 percent at t=4.

Note: Public investment shock in year $t=0$. Point estimates and 90 percent confidence bands.
... in countries with greater public investment efficiency ...

**Output (percent)**

**Public Debt (percent of GDP)**

*Note: Public investment shock in year $t=0$. Point estimates and 90 percent confidence bands.*
Summary on Public Investment

- It is time for an infrastructure push if conditions are right
  - Clearly identified infrastructure needs
  - Efficient public investment process
  - Economic slack

Public infrastructure investment could be self-financing

- Output boost may be tempered and debt-to-GDP ratios may rise if investment is inefficient or economic slack is limited.
  - Trade-off between broader social gains and fiscal consequences
  - Gains could be large if infrastructure bottlenecks alleviated

- Increasing efficiency is key to reap full benefits of public investment
Facts on Private Investment after the GFC
Severe Contraction in Private Investment

Real Private Investment
(Log index, 1990 = 0)

Sources: Consensus Economics; IMF, Fiscal Monitor database; and IMF staff estimates.

Note: The figure presents data, where available, for the country groups as defined in the WEO Statistical Appendix. EMDEs = emerging market and developing economies.
Contraction has been broad based across categories

Categories of Real Fixed Investment in Advanced Economies
(Log index, 1990 = 0)

Sources: Haver Analytics; national authorities; and IMF staff calculations.
Some Conjectures on Private Investment

- Does the slump in private investment reflect weak economic activity?

- Are other factors (financial constraints / policy uncertainty) at play?