Why so low for so long?
Revisiting determinants of real interest rates

Session 1: Fundamental drivers of interest rates: scenarios for the future

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Disclaimer: Views expressed here are mine alone, and need do not reflect those of the BIS
Synchronised global decline in real interest rates

What have caused this decline in real interest rates? Will these factors persist or reverse?
The ‘usual suspect’ explanations

- Wide consensus that the “natural” interest rate $r^*$ has declined
  - Higher saving & lower investment
  - Monetary policy simply tracks $r^*$ (else inflation will tell us so)
- Debate largely focused on the drivers
  - Lower productivity & potential growth reduce investment
  - **Demographic shifts**: higher share of working-age population & longevity increase saving
  - **Cheaper capital** lowers investment needs
  - Higher income inequality raises saving, as the rich has a higher propensity to save
  - Global glut of saving coming from EMEs
  - **Higher risk premium*/ scarcity of safe assets
How well do these explanations work?

- Declining productivity growth matches up well with real rates

Note: Both median of 19 advanced economies. Real rate is 10-year govt bond yield minus long-term expected inflation. Productivity growth is 5-year moving average.
How well do these explanations work?

- So does the lower dependency ratio – as baby-boomers and EMEs enter global workforce, saving increases

Note: Dependency ratio is the fraction of people age >65 and <19 over the working-age ones. From 1991, includes emerging markets.
How well do these explanations work?

- Life expectancy has been improving (as always), raising the need to save for retirement...

Note: Both median of 19 advanced economies.
How well do these explanations work?

- In fact, it is almost too easy to explain the one trend

Note: Relative price of capital is median of 11 advanced economies, based on Eichengreen (2015)

- One needs a more stringent test, with a more extended sample
Much less success from long-term perspective

- The last 30-year correlation seems coincidental
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On the whole, real factors find little empirical support

- Even theory’s most definitive driver of real interest rate, MPK, does a poor job

- Systematic studies confirm these observations
If the real factors don’t work, then what does?

- Some clues
  - Reversals of real interest rate trends typically coincide with changes in monetary policy regimes
  - Under gold standard, nominal rates were held steady for 4 decades, yet expected inflation did not move
Neglected role of monetary policy

- Monetary policy regimes help explaining level shifts in real interest rates, even after accounting for real saving-investment factors

Note: Result based on Borio et al (2017).
Globalised monetary policy

- The synchronised movements of global real interest rates could be explained by monetary policy in the dominant country being propagated via global financial integration.

- Borio et al (2017) show that this explanation finds much more empirical support than the “global saving-investment” hypothesis.
The ‘unusual’ suspect

- Our understanding may be more limited
  - Factors we think should matter do not hold up
  - Factors we think should not matter do surprisingly well
- Mirrored-self misidentification
  - Are central banks passively tracking the natural rates, or actively charting the real rate path?
- Real saving-investment framework may be too rigid
  - $r^*$ could be linked to monetary policy, through endogenous growth and financial stability?
  - $r^*$ simply not a useful concept?
Where are we headed?

- **Scenario 1**: Central banks see persistently low natural rates, and target the lower “new normal”, at least as long as inflation remains subdued
  - Financial rather than inflation overheating could come to the fore (e.g. asset price overshooting, crippling debt service burden). Central banks face a difficult tradeoff.
- **Scenario 2**: Central banks believe r* trend is reversing to the upside (e.g. due to aging, sustained growth in GDP and investment), bringing us closer to the old normal
  - If transpires, would yield more positive outcome – no secular stagnation, less concern about ZLB
Thank you

References
Appendix
## Policy regimes

### International monetary policy regimes

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- **Gold standard/silver/bimetallic**: Countries that had a gold standard or bimetallic system.
- **No GS/paper**: Countries that did not have a gold standard.
- **Interwar gold standard**: Countries that had a gold standard during the interwar period.
- **Interwar (between GS and BW)**: Countries that were transitioning between the gold standard and the Bretton Woods system.
- **Bretton Woods (between BW and IT)**: Countries that were part of the Bretton Woods system and transitioning to inflation targeting.
- **Post-Bretton Woods (between BW and IT)**: Countries that have transitioned from the Bretton Woods system to inflation targeting.
- **Inflation targeting/de facto price stability**: Countries that have adopted inflation targeting or de facto price stability.

1. The table shows the year when a country joins the gold standard. In the empirical analysis, we do not distinguish between metallic standards. In the text, we use “gold standard” to refer to metallic standards.

Sources: Benati (2008); Messmer (2005); BIS authors’ calculations.