

Secular drivers of the global real interest rate

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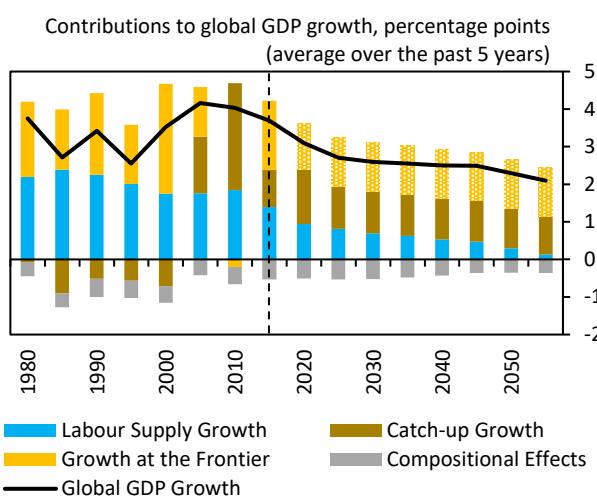
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Interest rates across much of the world are low. This paper aims to contribute to the wider debate about why that is and what may happen going forward. Our main contributions are twofold: first, we assemble a rich collection of global data to analyse the main secular trends that could be driving the global neutral real rate. Second, we develop a simple accounting framework to quantify the relative importance of these trends in a coherent way. We then use these insights to explain the fall in the global neutral rate in the past, and offer a prediction of how the neutral rate could evolve in the future.

- Since the 1980s, market measures of long-term risk-free real interest rates have declined by around 450bps across both emerging and developed economies. Although there is a lot of variation across countries, the presence of a discernible common trend suggests global factors are at work (Section A).
- This decline in global real interest rates has largely occurred against a backdrop of low and stable inflation with little sign of demand overheating. This suggests the sustained fall in long-term market rates is symptomatic of a fall in the global *neutral* rate. The global neutral rate is an important policy variable as it acts as an anchor for a country's equilibrium real rate in the long run (Section B).
- The global neutral rate is largely determined by: expectations of global trend growth; and other factors shaping preferences for desired savings and investment. We analyse each in turn. First we use a modified growth-accounting framework to analyse the various secular trends that could be affecting global growth. Then we use a simple saving-investment framework to analyse global shifts in desired savings and investment to analyse how changes in preferences could have affected the neutral rate.

- **Growth:** Although changes in global trend growth are probably the most commonly-cited driver of changes in real interest rates, we find it difficult to account for much (if any) of the pre-crisis
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- fall in global real rates by just appealing to past changes in growth – global growth was fairly steady in the pre-crisis decades. However, the financial crisis is likely to have triggered a wider reassessment of growth prospects and pessimism about the future could be playing an important role in driving the decline in real rates we have seen more recently. Our analysis suggests that slower global labour supply growth (due to demographic forces) and headwinds at the technological frontier (such as a plateau in educational attainment), may cause global
- growth to slow by up to 1pp over the next decade (**Figure A**). We think this decline could account for about 100bps of the fall in real rates we have seen recently (**Section C**).

Figure A: Global Growth Accounting



	1980 to 2015	2015 to 2030
Change in Global Growth	0.0pp	0 to -1.5pp
Labour Supply Growth	-0.8	0 to -0.5
Catch-Up Growth:	+1.0	-
Growth at the frontier:	-0.2	0 to -1.0
Educational plateau	-0.2	0 to -0.2
Inequality	0.0	0 to -0.6
Fiscal	+0.2	0 to -0.2
Technological progress	-0.2	-

Sources: TED, US Conference Board, IMF, UN and Authors' calculations

Notes: Global growth is expressed in constant PPP-weighted 1990 dollars. The grey 'compositional effect' bars in the chart show the impact on average global per capita incomes of having high population growth in low-income countries.

- **Preferences:** Shifts in the balance of desired savings and investment appear quantitatively even more important than changes in growth expectations. Our analysis suggests the desired savings schedule has shifted out materially due to demographic forces (90bps of the fall in real rates), higher inequality within countries (45bps) and a preference shift towards higher saving by emerging market governments following the Asian crisis (25bps). If this had been the whole story, we would have expected to see a steady rise in actual saving rates globally. But global saving and investment ratios have been remarkably stable over the past thirty years suggesting desired investment levels must have also fallen. We pin this decline in desired investment on a fall in the relative price of capital goods (accounting for 50bps of the fall in real rates) and a preference shift away from public investment projects (20bps). Also, we note that the rate of return on capital has not fallen by as much as risk free rates. The rising spread between

these two rates has further reduced desired investment and risk free rates down (by 70bps). Together these effects can account for 300bps of the fall in global real rates ([Section D](#)).

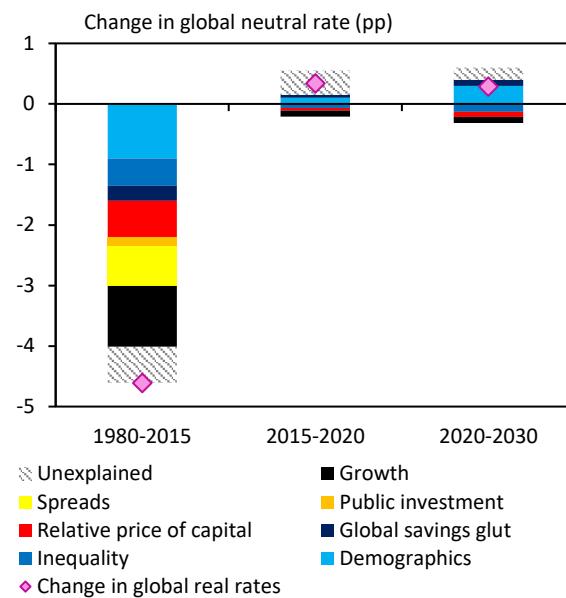
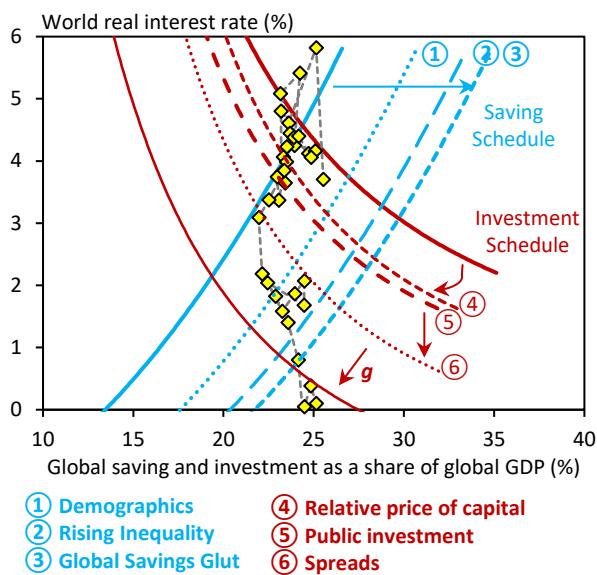
- When combined, lower expectations for trend growth and shifts in desired savings and investment can account for about 400bps of the 450bps decline in the global long-term neutral rate since the 1980s

([Figure B](#)). Moreover, these secular trends look likely to persist ([Figure C](#)). This suggests that the global neutral real rate may settle at or slightly below 1% over the medium- to long-run ([Section E](#)).

- The policy implications of permanently low real interest rates are extensive. In the face of adverse shocks, central banks are likely to run up against the zero lower bound on nominal interest rates more often, requiring the use of unconventional policy instruments such as quantitative easing (QE). However, uncertainties over the transmission of QE and concerns over the size of central bank balance sheets, might limit the use of such tools in the future. For large adverse shocks, fiscal policy may therefore need to bear more of the burden of business-cycle management. Low rates may also fuel
- search-for-yield behaviour, posing challenges for macro- and micro-prudential policymakers. More generally, the possibility of the global neutral rate remaining at persistently low levels should motivate a real debate across the policy spectrum on the best approach to stabilise the cycle. ([Section F](#)).

Figure B: Quantifying shifts in desired savings & investment

Figure C: Secular drivers of global real interest rates



Source: Authors' calculations.

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