Interest rates: Really low and for long?

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Overview

- Interest rates are on our mind: Low and for long?
- Recent trends in interest rates: nominal interest rates, long and short
- Causes of low interest rates: A theoretical tour d'horizon
- Some speculation on how it may change and how monetary policy might react



Eighty years ago: Secular stagnation

Alvin Hansen (1939):



"The swift stream of events in the last quarter century offers, however, overwhelming testimony in support of the thesis that the economic order of the western world is undergoing in this generation a structural change no less basic and profound in character than that transformation of economic life and institutions which we are wont to designate loosely by the phrase 'the Industrial Revolution.'"



The importance of tracking interest rates

- The interest rate is a price the price of the future.
- Just as in 1939, both short and long-term interest rates are presently very low. Inflation was low, growth was slow, pessimism was rampant.
- What are the fundamental drivers of interest rates?
 Central banks? Expectations of inflation? Technological change? Preferences for the present, or need to save for the future? Government policy? Risk aversion?
 Supply of safe assets?



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Perspectives on High World Real Interest Rates

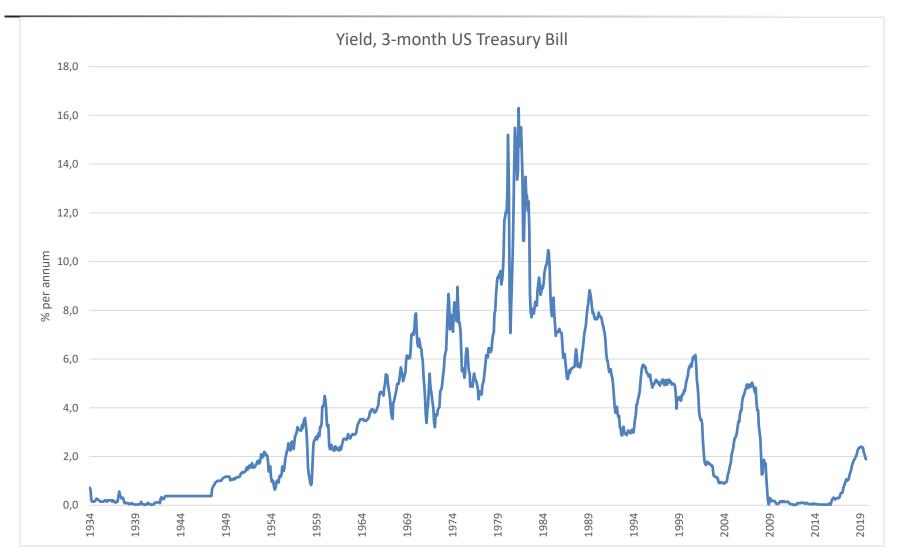
REAL INTEREST RATES in the United States have reached extremely high levels in the last several years. This surge in real rates at all maturities has not lacked explanations. Large current and prospective deficits, tight money, better profit prospects, financial deregulation, and increased uncertainty are among the factors that have been blamed for high real rates. If one looks only at the performance of the U.S. bond market, it is difficult to discriminate among possible explanations for the behavior of real interest rates. This paper examines the worldwide behavior of interest rates and the performance of other asset markets besides the U.S. bond market in order to better explain high real rates.

Even a cursory inspection of the data makes it clear that high real rates are a worldwide phenomenon. In nearly all the major countries of the Organization for Economic Cooperation and Development (OECD), real interest rates on both short- and long-term bonds have risen dramatically. This is not surprising. Interest rates today are substantially determined worldwide, rather than domestically, because a large pool of capital flows toward nations with high real rates, tending to equalize rates around the world. Thus, it is appropriate to relate national interest

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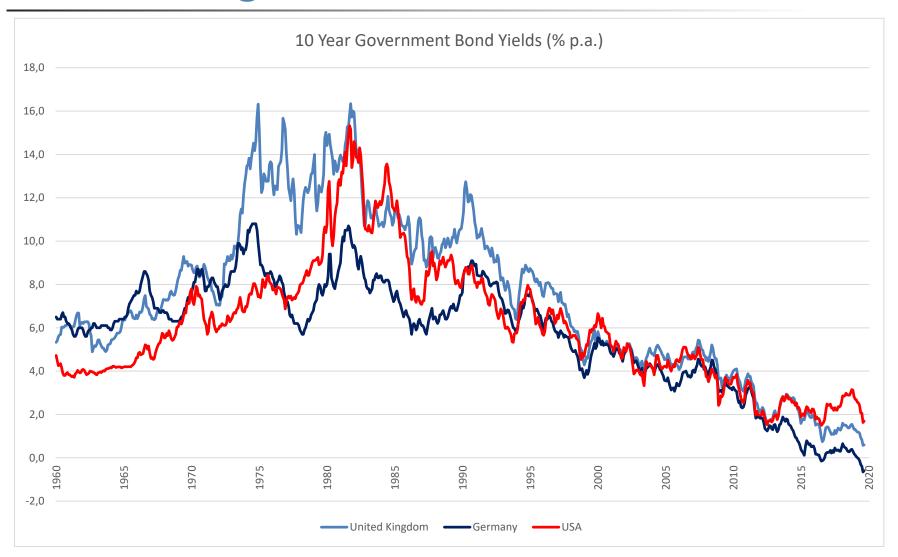


Trend: US short-term interest rate





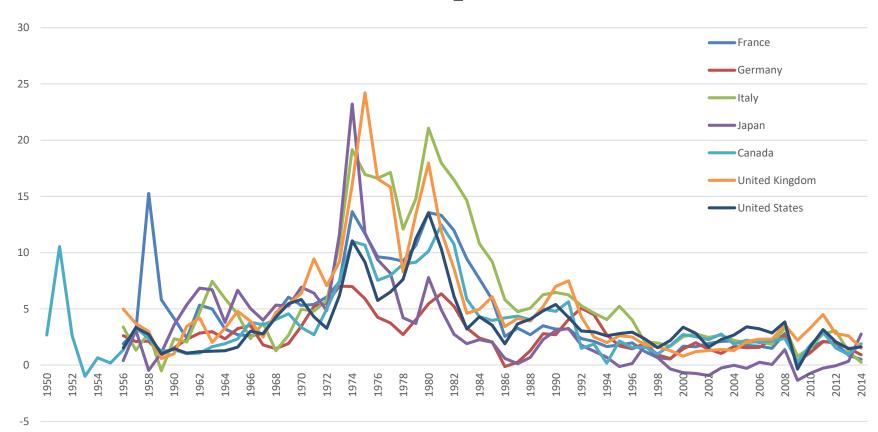
Trend: Long-term interest rates





Inflation in the G7 \approx 40% of world GDP



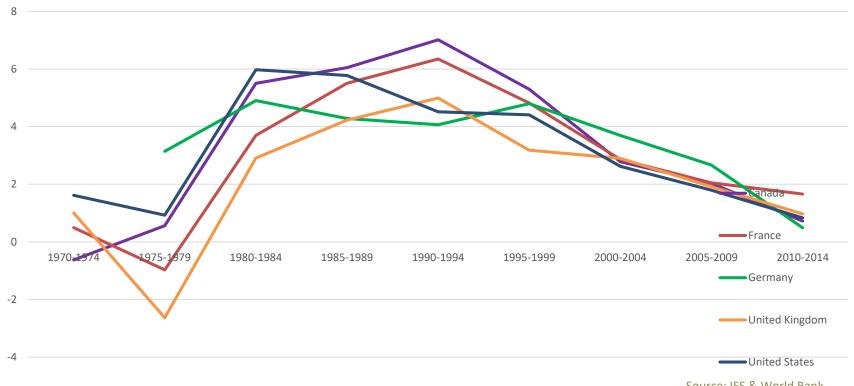




Real rates

 However you measure them, real interest rates are historically low – but have been *lower* in the past

G5 - REAL 10 Year Government Bond Yield



Source: IFS & World Bank



Causes of low *real* interest rates: Theory

- Simple story. Solow (1956): Closed economy, neoclassical production, constant savings rate \mathbf{s} , constant depreciation rate δ , population growth rate \mathbf{n} , steady labor-augmenting technical progress at rate \mathbf{a}
- Leads to a seductively attractive and robust prediction: over the long haul, the real interest rate is $(a+\delta+n)/s$
- Real interest rates *rise* with productivity growth, depreciation, and population growth; they *fall* with the savings rate.
- More complex models contain similar predictions.



Causes of low *real* interest rates: Theory

The global decline in interest rates is a consequence of

- Demographics: Declining population growth in regions where savings occurs
- Savings glut: An increase in savings at any income level
- Investment slump: A shortage of opportunities or a fall in the effective rate of depreciation
- Productivity growth: A slowdown in growth, and in particular, of growth in total factor productivity (TFP)

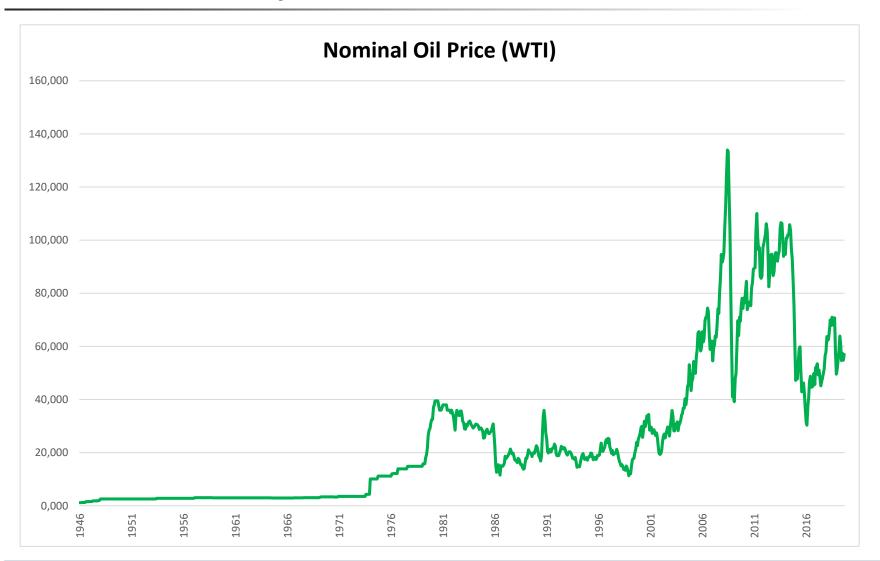


Other causes of low interest rates

- Relative oil/energy prices. Low energy prices affect productivity of capital. Depends on whether capital and oil are substitutes or complements. At the margin, likely to substitutes
- Leads to the prediction that low energy prices lead to low real interest rates
- In general: A series of favorable supply shocks (China, globalization, weak labor unions...). But can they last?



Trends in oil prices





Trends in oil prices

Real Price of Crude Oil (in USD)



Other reinforcing and countervailing trends

- Fiscal consolidation/increasing government saving
- Inadequate supply of "safe assets"
- Increasing inequality
- Risk political, technological
- Preferences and demographic transition
- Algorithms and the digital economy
- Savings in the BRICS outstrips the investment there and flows to the US and other deficit countries



What goes down, must come up

What caused world interest rates to rise in the past?

Identifiable macroeconomic, i.e. global disturbances:

- 1939: Rearmament, massive rise in government spending
- 1950s: A rise of general purpose technological innovation
- 1973-4: A global resurgence of inflation associated with a world-wide supply shock (oil price surge)
- 1980s: Volcker and the fight against inflation
- 1990s: A sudden stop in flow of funds to Asia from the developed world
- 2008: Financial crisis + oil price bubble (not persistent)



What goes down, must come up

What could cause interest rates to rise in the coming years?

- A sharp rise in energy prices due to supply disruptions
- A resurgence of inflation after global supply shock
- A sudden stop in flow of funds from Asia and other BRICs to the developed world, i.e. the United States
- A new fundamental and general purpose technological innovation
- Synchronized change in fiscal policy across the world
- International conflict or war



Lessons for Europe, lessons for NBP

- Europe's demographic, productivity growth, and fiscal situation mean lower real interest rates...
- And inflation and inflation expectations remain "defeated"...
- ...yet these factors can change, possibly suddenly
- Monetary policy in reverse? Raising interest rates behind the ball?
- Disintermediation on a large scale?
- Such a scenario could lead to financial stress on an unprecedented scale
- There will be a premium on having an own central bank and monetary policy

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