

# Global Real Rates: A Secular Approach

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# Introduction

- Inspiring and clever paper on the determinants of global (natural) real rate.
- Challenging topic: we don't observe the natural interest rate. (as Natural rate of Unemployment or Potential Output)
- Policy interest:
  - ▶ Natural interest rates is important in evaluating monetary policy stance.(see for example IMF G-20 report on Growth, October 2017);
  - ▶ Global interest rate relevant for policy coordination.

# This paper

- Propose a new approach for assessing global rates.
- Contribution: present value approach (Lettau and Ludvigson, 2001) global and long-run perspectives.
- Main results: global consumption to wealth ratio anticipates movements in future global real risk-free rate.
- Structural interpretation in terms of drivers of consumption/wealth ratio emphasizes contribution of different shocks (financial shocks seems to be more important)
- Identification of natural interest rate with short term real rate.

## Related (selected) literature

- Laubach and Williams (2015): semi-structural approach to estimate natural interest rate.
- Borio, Disyatat, Juselius and Rungcharoenkitku (2018): role of monetary regimes and global factors.
- Vlieghe (2017): role of higher moments and monetary regimes.

# My discussion

- Concepts and evidence;
- Role of assumptions in this paper(minimal assumptions, strong restrictions?);
- Some thoughts;

# Concepts and Evidence

- Short-term real interest rate: how do we measure it?

$$r_t = i_t - \pi_{t+1}$$

- Real natural interest rate: (macro/finance structural perspectives)

$$r_t = \alpha + \alpha_1 E_t [g_{t+1}] + \alpha_2 \text{Var}_t [g_{t+1}]$$

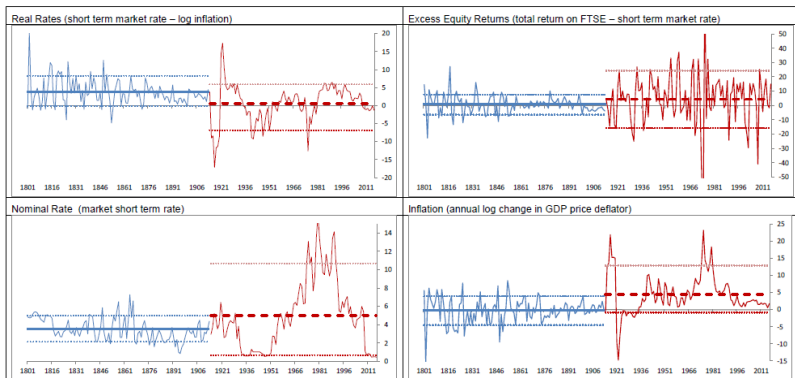
with  $g_{t+1}$  denoting the growth rate of consumption. This ideal rate has no analog in the data.

- Nominal context (role of inflation risk premium)

$$i_t - E_t \pi_{t+1} = \dots + \alpha_3 \text{Var}_t [\pi_{t+1}] + \alpha_4 \text{Cov}_t [g_{t+1}, \pi_{t+1}]$$

# Evidence (UK, Vlieghe (2017))

Figure 1: Long run view of asset prices and inflation



Source: Nominal interest rates and inflation are from the Bank of England's ["A millennium of macroeconomic data"](#) (the dataset was originally called the "Three centuries of macroeconomic data"), total equity return data is from Global Financial Data.

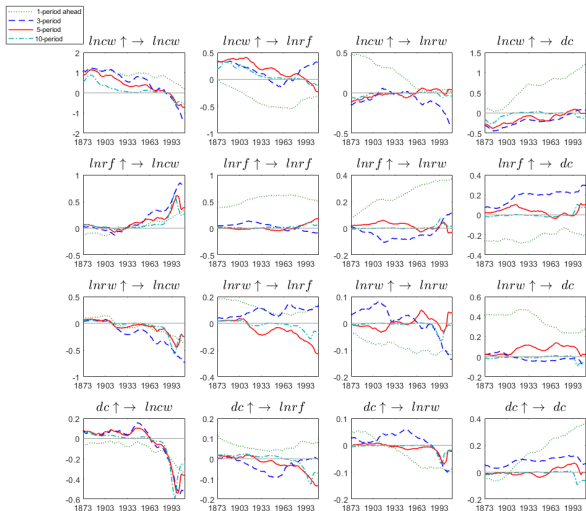
- Role of inflation depends on monetary regime (transmission mechanism and properties of inflation itself)
- Possibly framework with determination of nominal variables (inflation)

# Role of assumptions

- Long-run analysis but different policy regimes/structural breaks;
- Aggregation across countries;
- Global rates: role of financial integration, trade integration;
- Stationarity;
- Short term real interest rate and natural rate of interest;



# Long-run analysis, US (credit to V. Bazinas)



# Assumptions

- Budget constraint of different economies are aggregated by relative wealth ratios. Under which assumptions on international financial markets this aggregation is possible? Implicitly it is assumed that there is perfect financial integration.
- Different financial market structures and different degrees of goods' market integration influences transmission of shocks and global factors that determine real interest rate.
- Stationarity: Japan case might not be consistent with it.
- Strong identification of natural rate of interest: in general *short* term real rate might be different from *natural* rate of interest (long-run). In structural models monetary policy might need to target *efficient* rate of interest.

# Suggestions

- Nominal factors;
- Time-varying VAR and test for structural breaks.
- Confine analysis to sub-periods in which assumptions are good proxies of real world.

## Alternative view

- Standard framework (New Keynesian model);
  - ▶ Natural real interest rate would coincide with interest rate that would prevail under flexible prices: eventually function of underlying structural shocks.
  - ▶ Policy invariant and exogenous to the cycle.(by product of real business cycle framework)
- Alternative view: (Keynesian growth);
  - ▶ Natural real interest rate is determined by endogenous productivity development that are affected by the cycle.
  - ▶ Monetary non-neutrality not only in the short run but also in long-run;
- Role of risk is understated
  - ▶ Exogenous versus endogenous risk (role of financial intermediation?)

# Conclusions

- Interesting and stimulating paper;
- Complementary approach to others in the literature.
- Most approaches suit better advanced economies rather than emerging markets or even developing countries.