Comments on

“Global Real Rates:
A secular approach”

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“Do Changes in the Economic Landscape Require a New Policy Framework?”
Federal Reserve Bank of San Francisco
April 21, 2017
The decline in the real interest rate is a long-run phenomenon.
This paper seeks to find the determinants of the global riskfree interest rate

- Start with the global intertemporal budget constraint implies, assuming a constant MPC out of wealth and imposing the transversality condition

- The ratio of aggregate consumption to private wealth can be decomposed into:
  1) Future safe rates \( (r^f_{t+s}) \)
  2) Future excess returns \( (rp_{t+s}) \), or
  3) Future aggregate consumption growth \( (\ln C_{t+s}) \)

\[
\ln C_t - \ln W_t \simeq E_t \sum_{s=1}^{\infty} \rho_w^s r^f_{t+s} + \nu E_t \sum_{s=1}^{\infty} \rho_w^s rp_{t+s} - E_t \sum_{s=1}^{\infty} \rho_w^s \Delta \ln C_{t+s} + \varepsilon_t.
\]

\[
\equiv c w^f_t + c w^{rp}_t + c w^c_t + \varepsilon_t.
\]
US C/W ratio and short-term real interest rate

C/W ratio

Real return on 3 mo Treasury
G-4 C/W ratio and short-term real interest rate

C/W ratio

Real return on 3 mo Treasury
The authors highlight the relationship between the $C/W$ ratio and the risk-free rate.
Can lagged C/W forecast stock returns?
No, not at any frequency.
Can lagged C/W forecast consumption growth per capita? No, not at any frequency.
Can lagged C/W forecast the risk free rate? It seems so, at long horizons.
Some unresolved issues

• The paper is about the factors that drive the global interest rate. The data are suggestive but do not really match their story.

• Will this hold up for the world economy – G4 is a smaller fraction of world economy than in the 1920s.

• In addition, they are not on the same side of the “imbalances” equation – Germany is a large net saver, which partially offsets net borrowing of US
GDP shares 1870-2011
% of World Total

Source: Data from Maddison and PWT
Global Imbalances by selected countries and regions
1980-2015

Source: WEO
EUR surplus: Austria, Belgium, Denmark, Finland, Luxembourg, Netherlands, Sweden, Switzerland.
EUR deficit: Greece, Ireland, Italy, Portugal, Spain, Bulgaria, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, Slovak Republic, Turkey, Ukraine
We still do not know *why* C/W ratio changes

• Empirics link C/W to risk-free rate, but the direction of causality is unclear. What is causing the C/W ratio to change?

• More convincing racehorse between the alternative explanations for low rates.
  – Population growth – paper uses population growth rates for the G4; is that the relevant growth rate? Connection between savings rate and population growth is complex.
  – Productivity
Long-run productivity growth does seem to be related to the long term real interest rate.