From the Great Moderation to the Great Recession and Beyond

Kenneth Rogoff, Harvard University

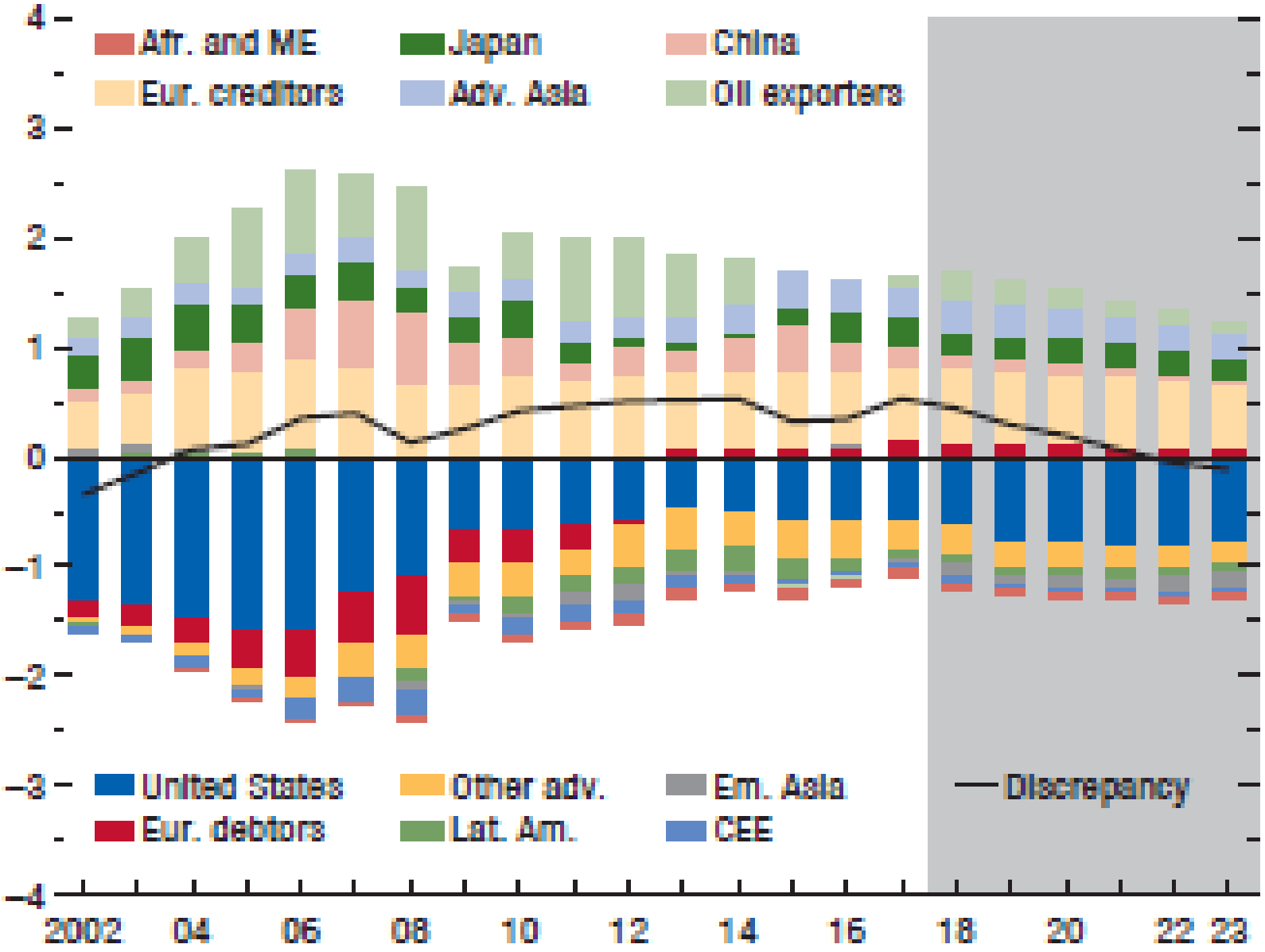
Washington DC

October 24 2018

THE WORLD BANK SOVEREIGN DEBT FORUM

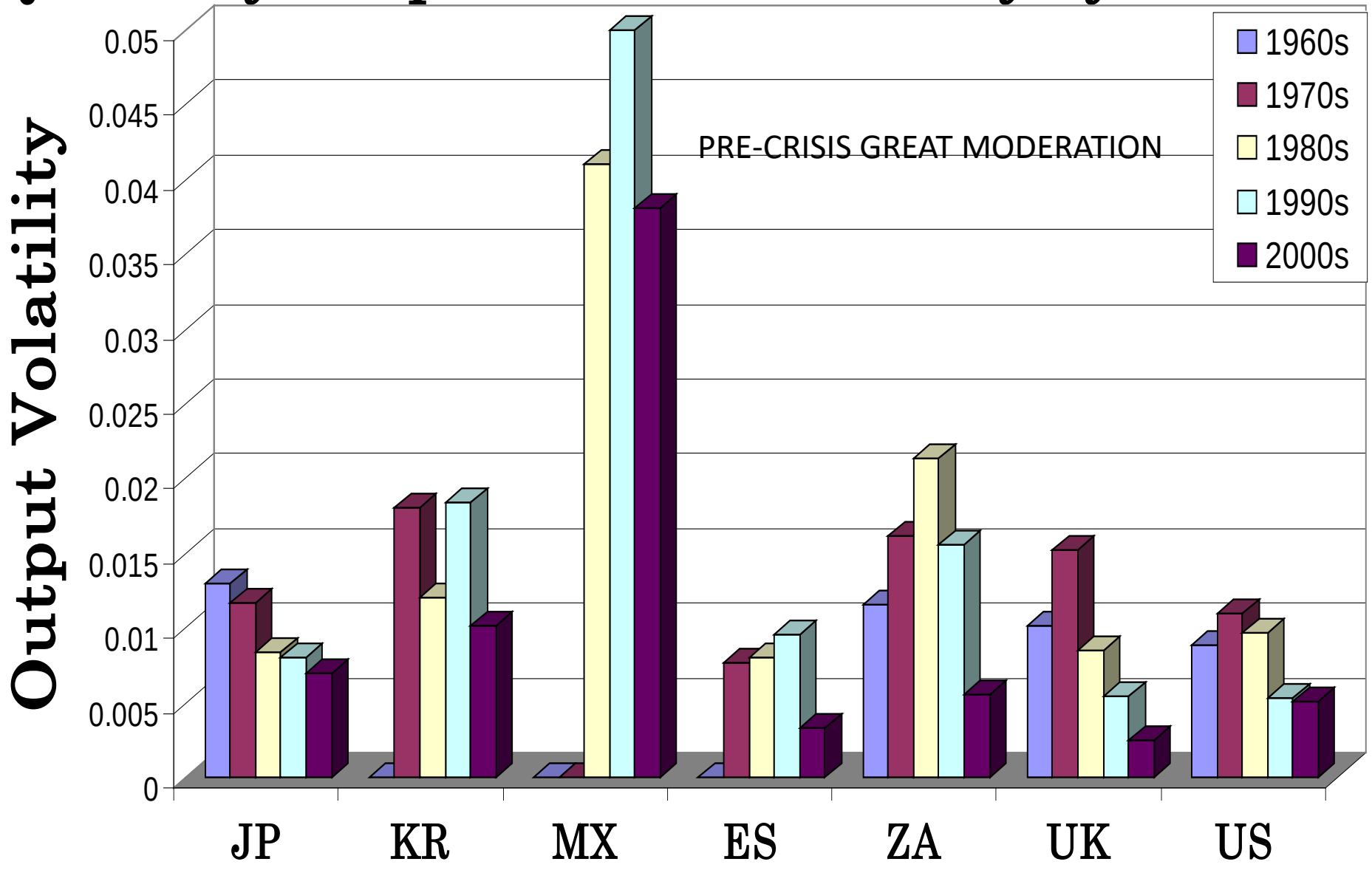
Low real rates --- if they stay low -- imply that higher sustainable debt

Global Current Account Imbalances 2002-2023, % world GDP

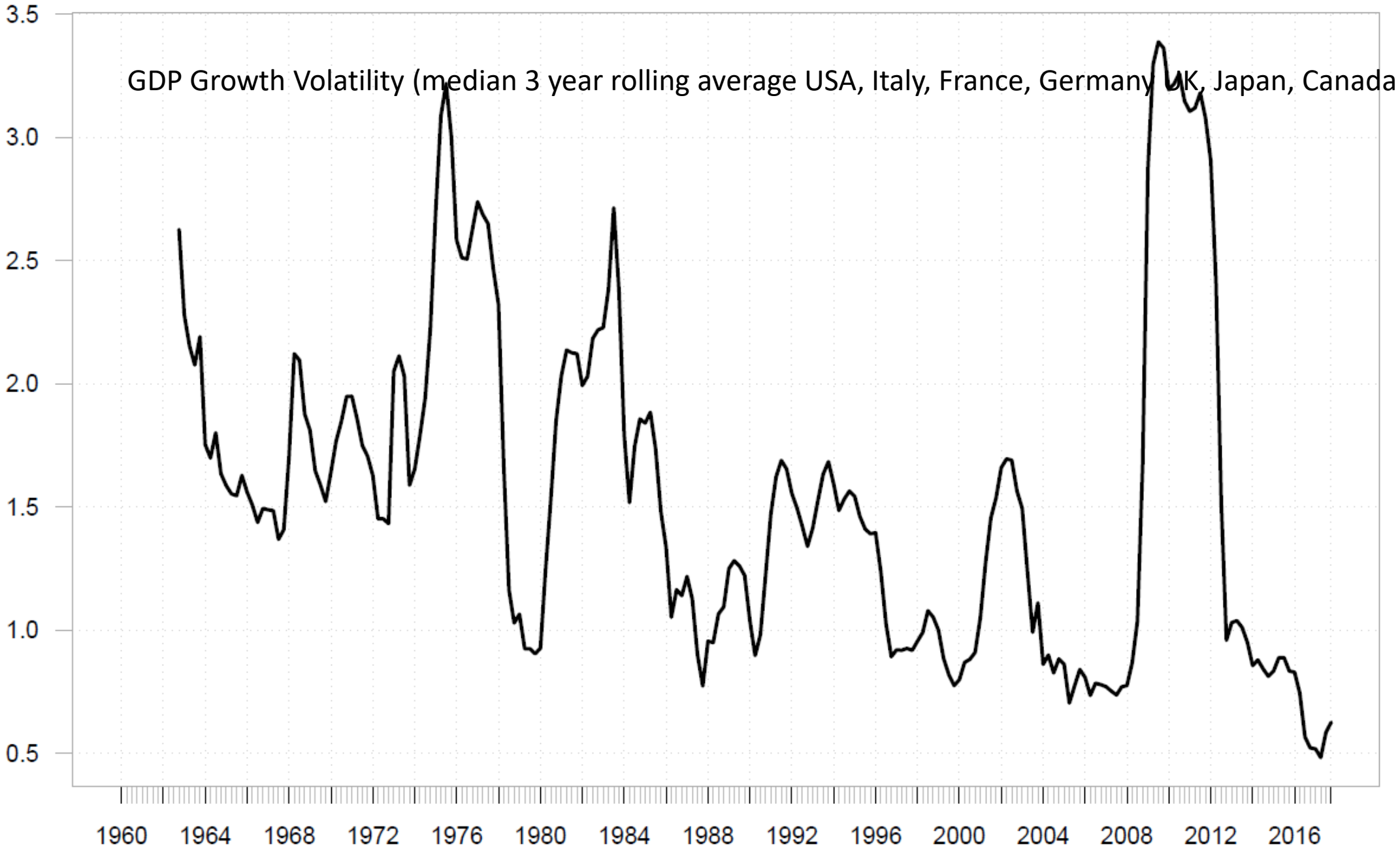


Source: IMF World Economic Outlook, October 2018

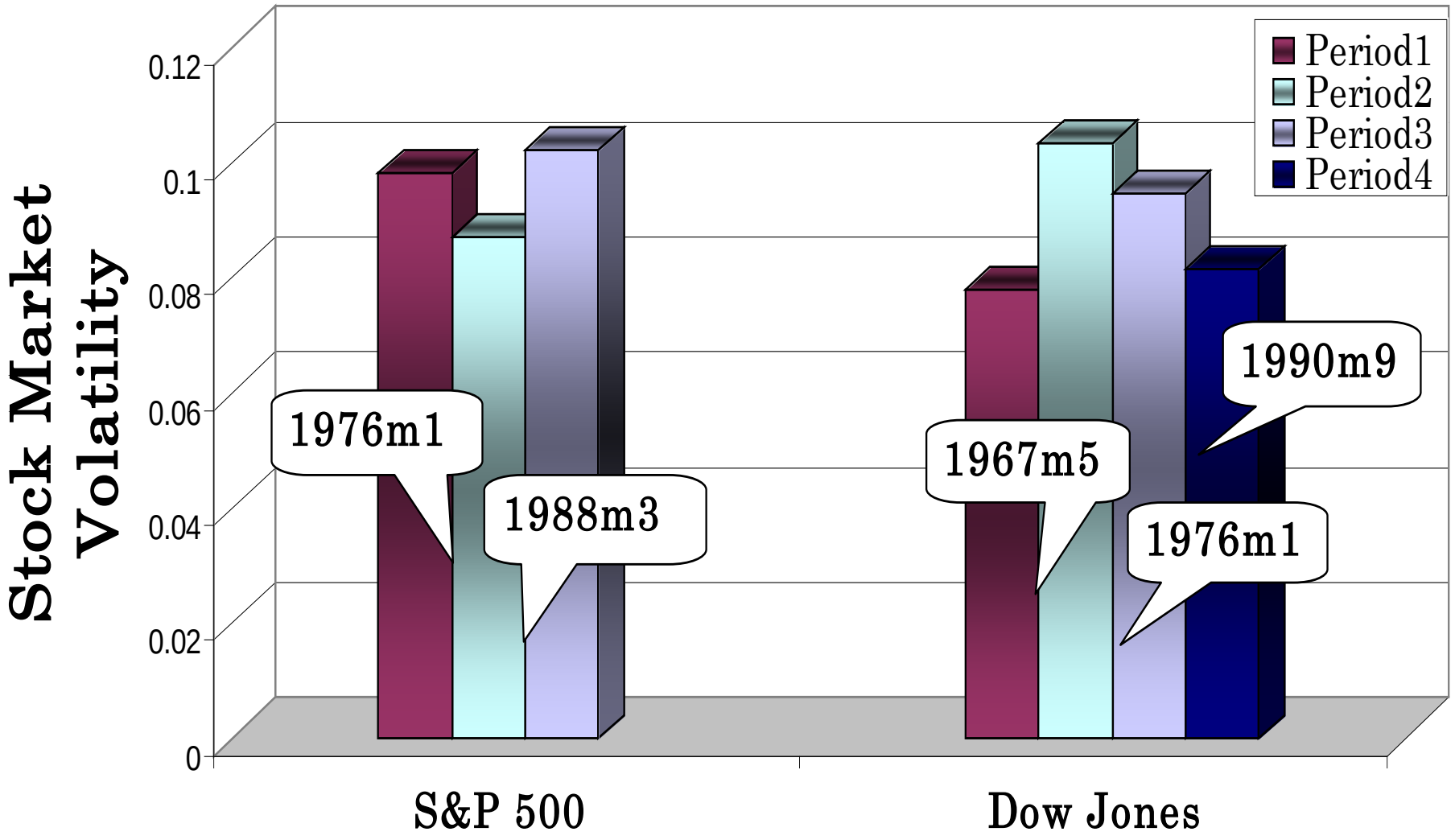
Quarterly Output Growth Volatility by Decade



Output Volatility is measured as the standard deviation of the change in natural log of real GDP for the given decade. All of the time series begin in 1960 or 1970 and end in 2005Q4 or 2006Q1. Source: Rogoff (2006).


GDP Growth Volatility (median 3 year rolling average USA, Italy, France, Germany, UK, Japan, Canada
3.5
3.0
2.5
2.0
1.5
1.0
0.5
1960
1964
1968
1972
1976
1980
1984
1988
1992
1996
2000
2004
2008
2012
2016

Even before crisis, fall in asset price volatility much less pronounced than in output.



Volatility is measured as the standard deviation of the deviation of the natural log of the stock market index from its HP-filtered trend. Breaks determined endogenously using Peron (1991) test. Source: Rogoff (2006).

Could Fear Factor be Driving Low Interest Rates?

- A large literature following Barro (2006) has demonstrated that tail risk rises (say fear of a systemic crisis) by even a relatively modest amount (say from 2% to 3%), there can be very downward effect on the safe interest rate (Reinhart, Reinhart and Rogoff, 2015), but also on investment and growth (Kozlowski, Veldkamp and Venkateswaran, 2015)

Skew Index of Tail Risks

- Kozlow

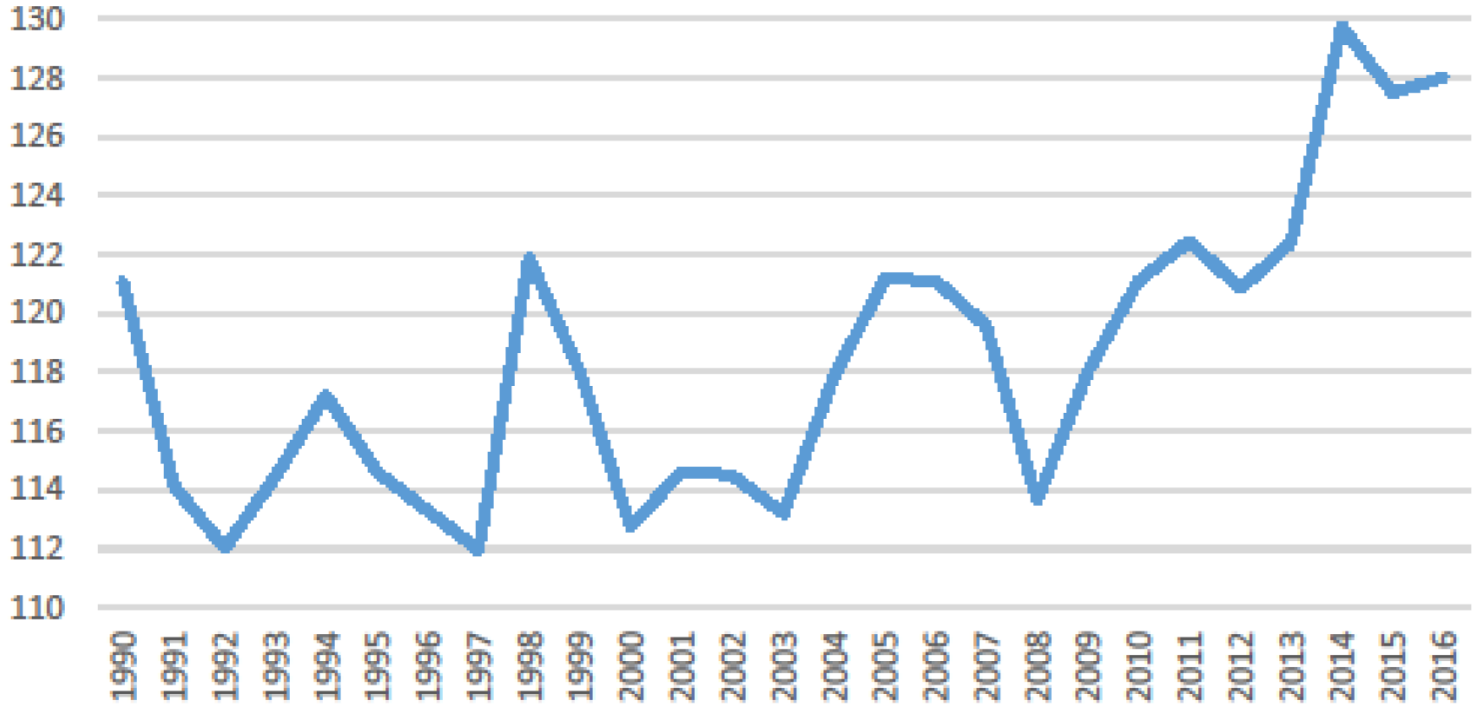


Figure 4: Tail Risk Remained High After the Crisis. Vertical axis is the skew index, a measure of the market price of tail risk on the S&P 500, constructed using option prices. Source: Chicago Board Options Exchange (CBOE). 1990:2016.

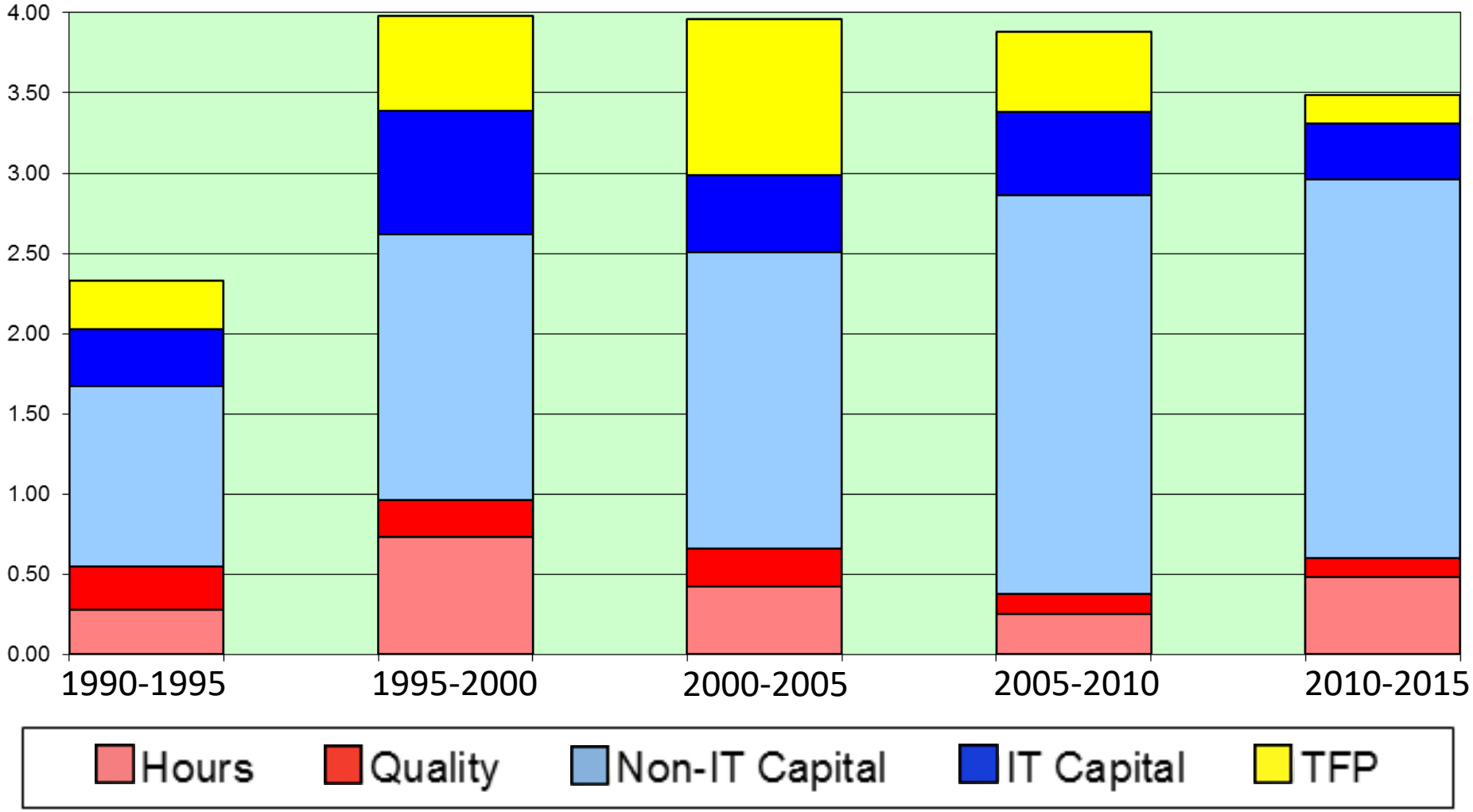
Source: Kozlowski, Veldkamp and Venkateswaran, 2015

Explanations of slow growth in advanced countries

- **Secular Stagnation** (*too little demand)*
  - Post-Crisis Austerity, Inequality
- **Slowing Innovation**
- Demographics
- **Aftermath** of Financial Crisis
- Measurement?

Sources of World Economic Growth:

Average annual growth rates, weighted by income share.



Jorgenson, Fukao and Timmer (2016)

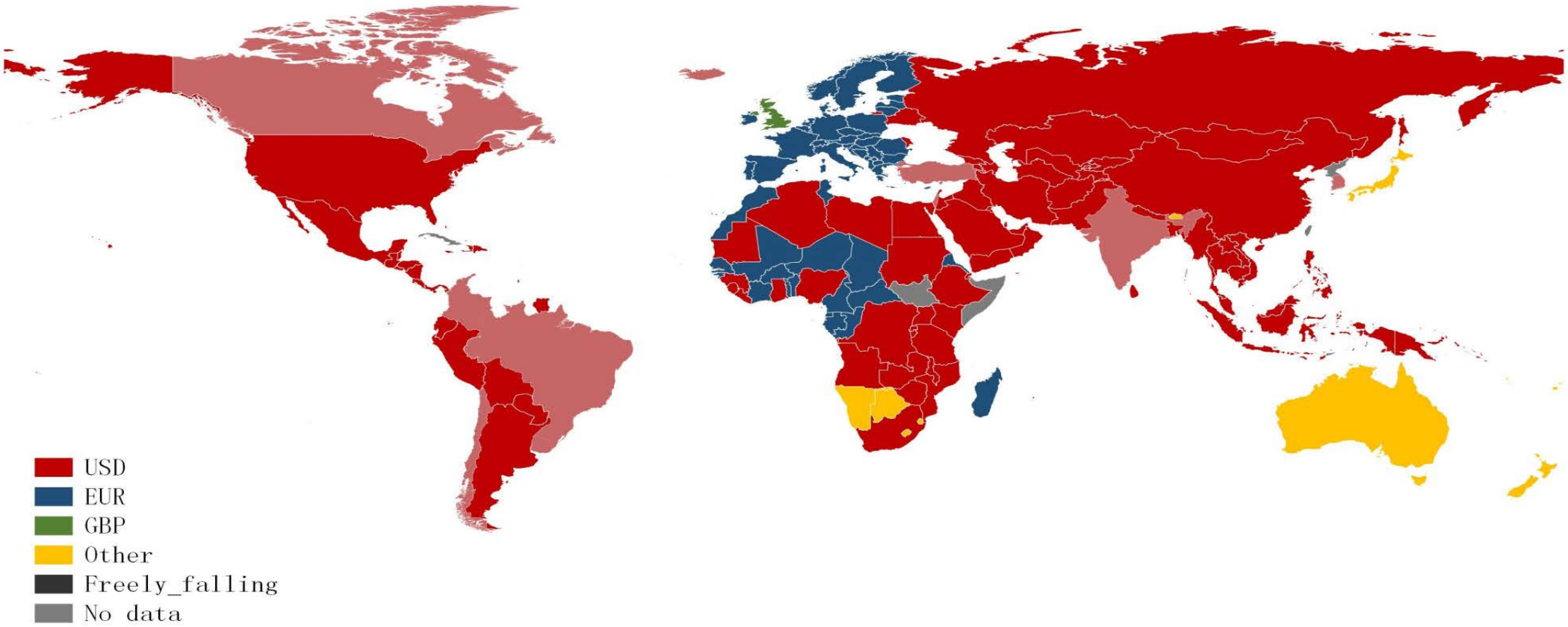
Is slow growth in last decade really mostly secular stagnation?

- Secular stagnation theory conflates normal slow growth in aftermath of a financial crisis with a permanent deterioration.
- Years to recover pre-crisis peak in per capita GDP in 100 of the worst crises since the 1840s is about **8 years** (the median is 6 1/2 years). (Reinhart and Rogoff, 2009, 2014)
- In the 2007-2008 wave of crises, average closer to 10 years.

Is the Centrality of the Dollar Another Source of Vulnerability?

By many measures, dollar dominance today as great or greater than at height of the Bretton Woods era.

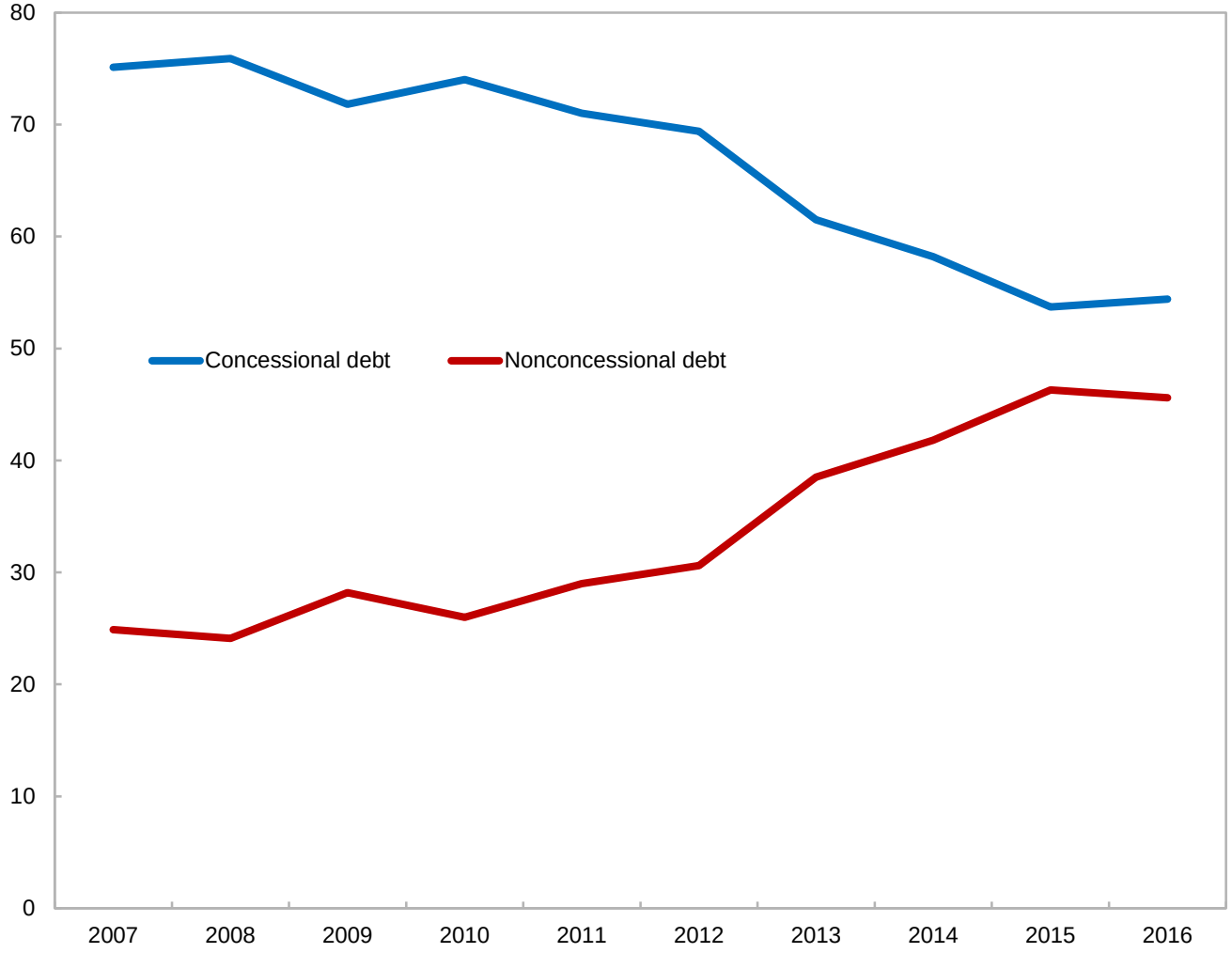
The Geography of Currency Anchors, 2016



Source: Ilzetski, Reinhart and Rogoff, 2017

OTHER RISKS: Low-Income Developing Countries: Share of Non-Concessional Financing, 2007-16

Percent of Total Public and Publicly Guaranteed Debt



Source: World Bank Fiscal Monitor, April 2018

The End