

NABE-Bundesbank Symposium
*Why don't we see a global
productivity boom?*

—

Step away from the lamppost

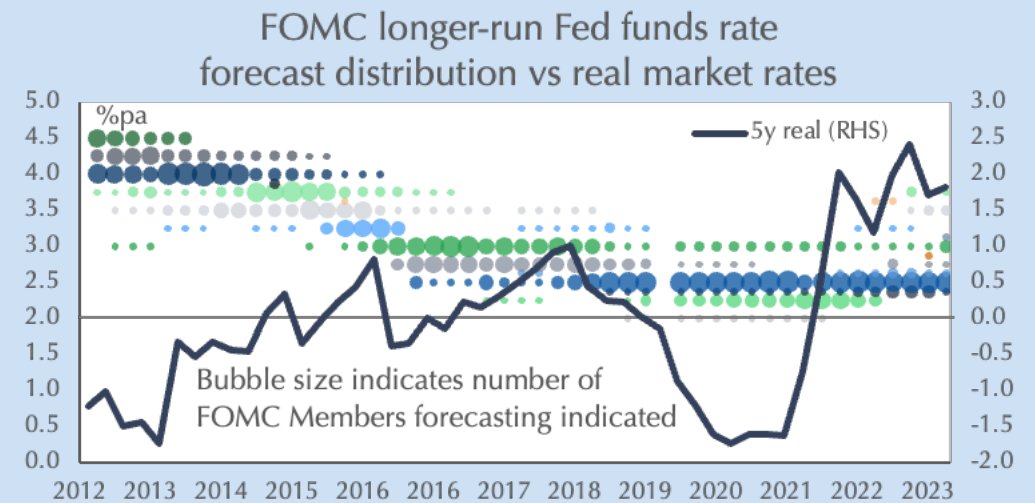
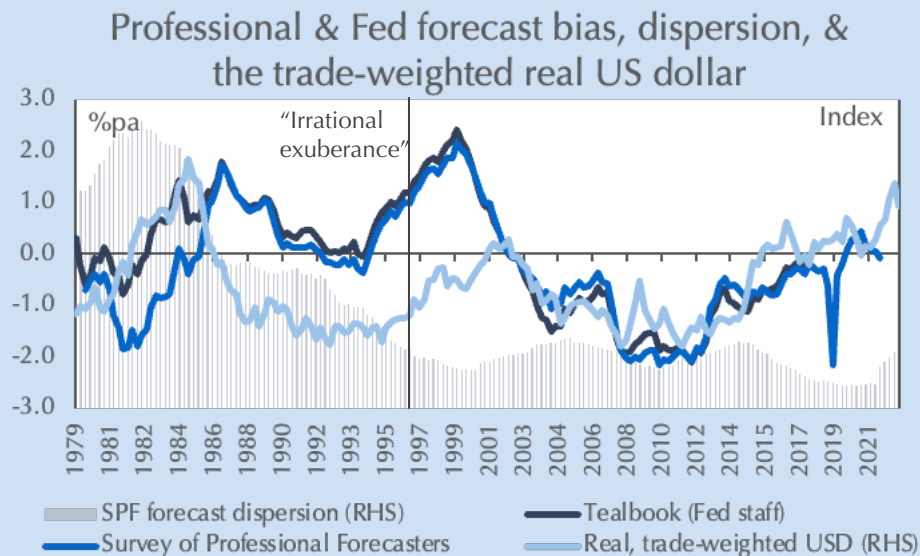
Marvin Barth
Thematic Markets



“How do we know when **irrational exuberance** has unduly escalated asset values...?”

“We **should not underestimate or become complacent about the complexity** of the interactions of asset markets and the economy.... **asset prices particularly, must be an integral part** of [analysis]”

“There is, **regrettably, no simple model of the American economy that can effectively explain** the levels of **output, employment, and inflation**. In principle, there may be some unbelievably complex set of equations that does that. But we have not been able to find them.”

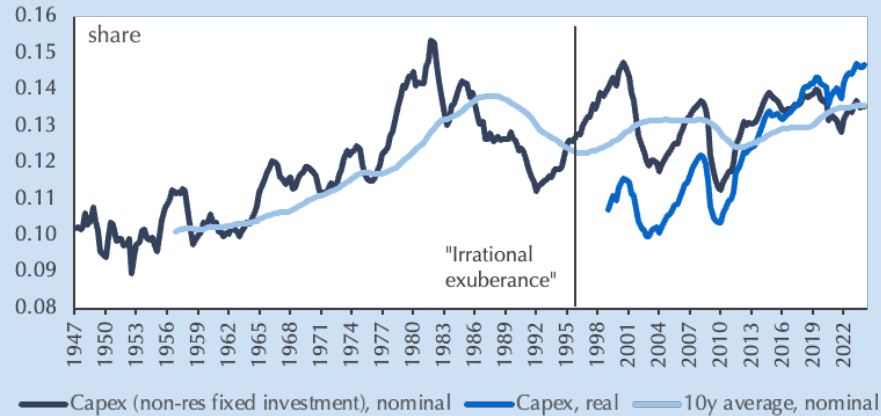


Source: BIS, Federal Reserve Bank of Philadelphia, Federal Reserve Board, LSEG, Thematic Markets

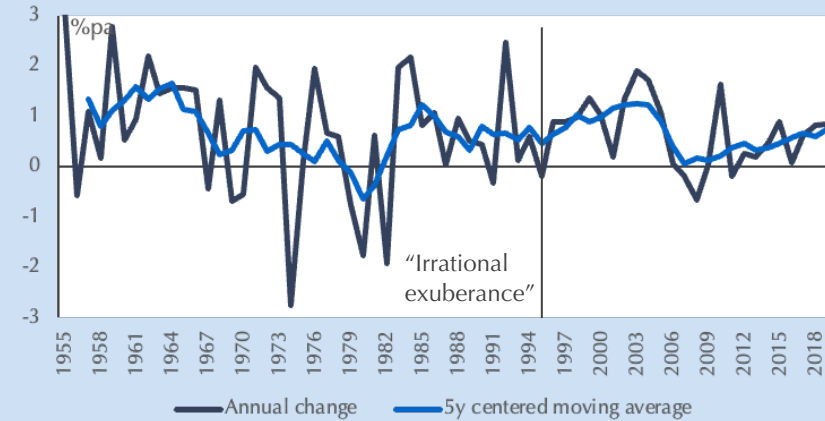


Comparing cycles: Irrational exuberance versus today

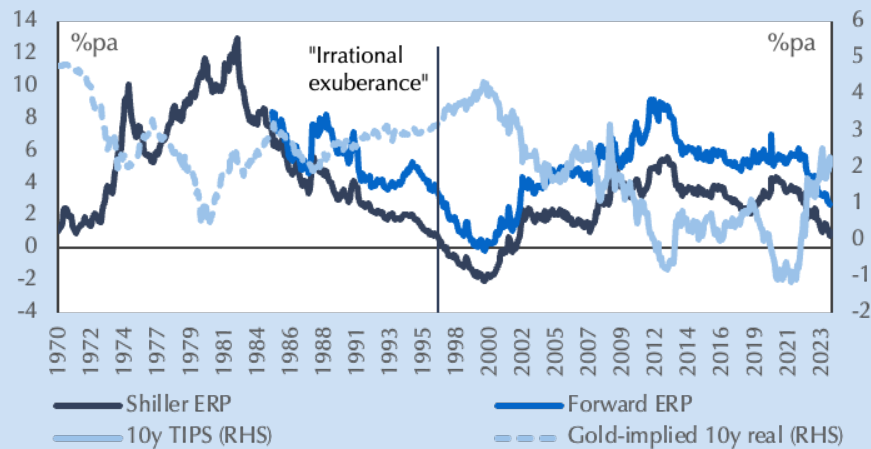
Capex share of US GDP



US total factor productivity



US equity risk premia & real rates



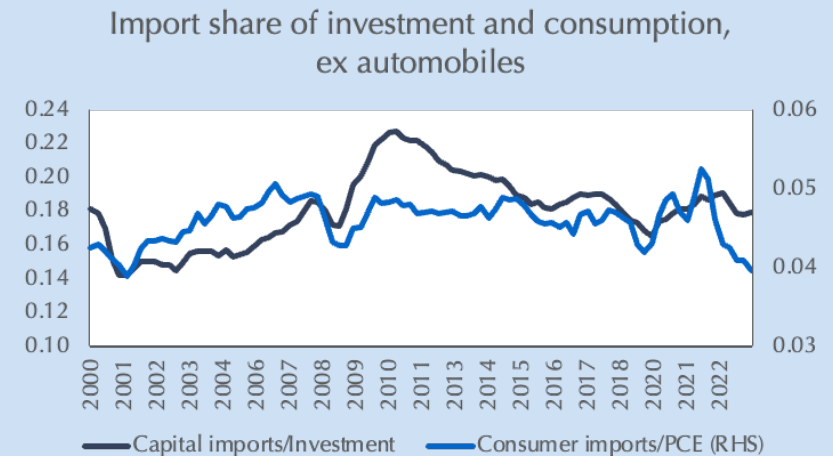
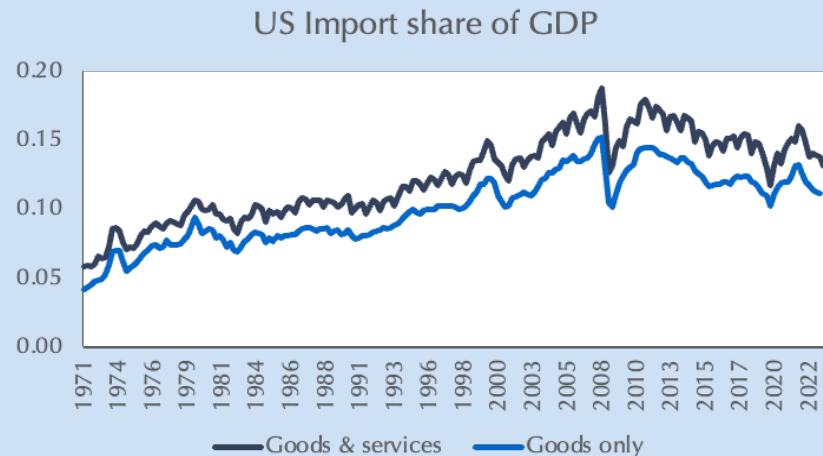
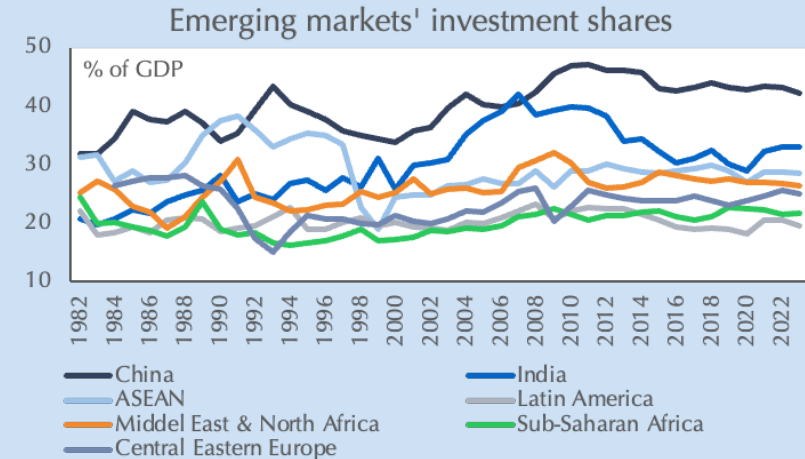
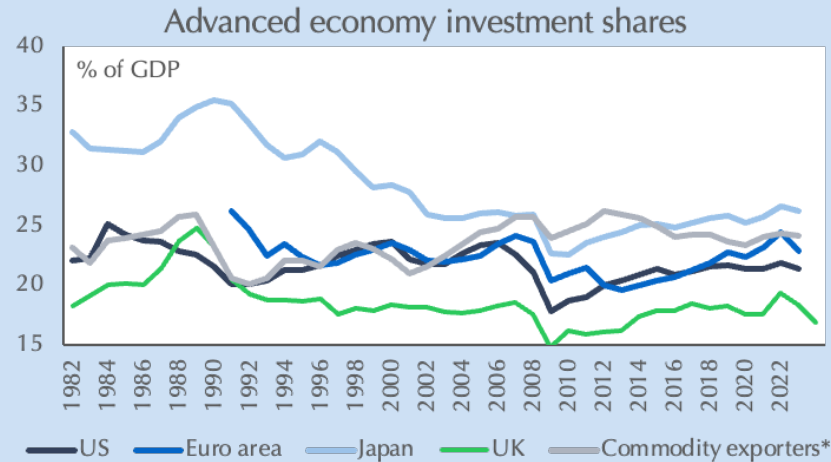
Traded-weighted real US dollar index



Source: BIS, LSEG, Penn World Tables, Robert Shiller, US BEA, Thematic Markets



What's driving the current innovation cycle? *Localization*

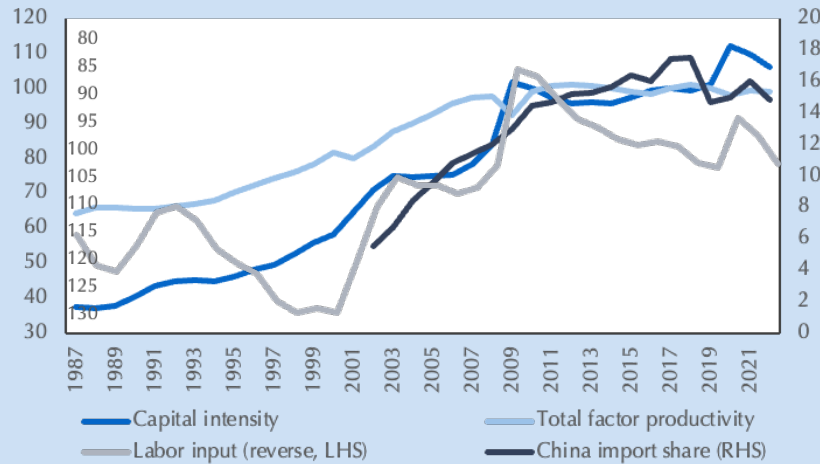


Source: IMF, LSEG, US BEA, Thematic Markets

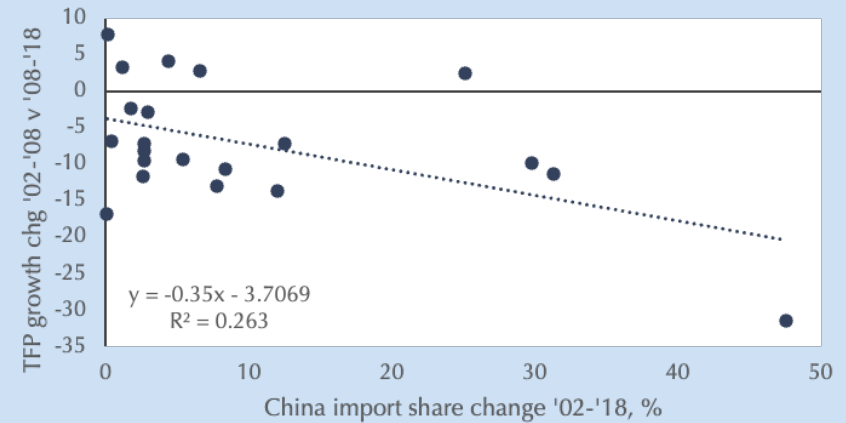


Flat manufacturing productivity growth? No practice

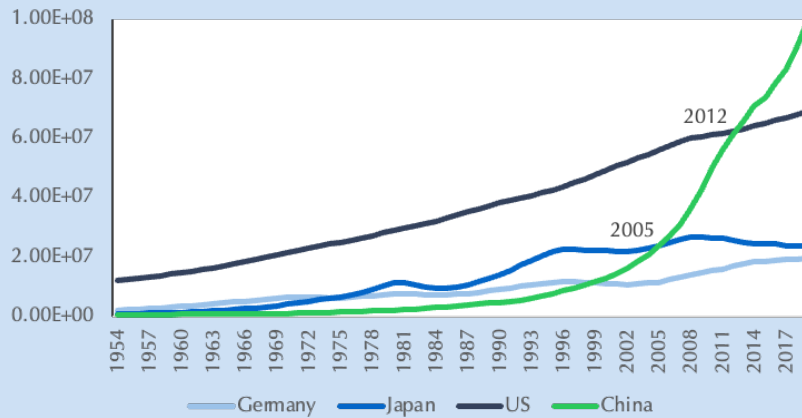
US durable goods manufacturing



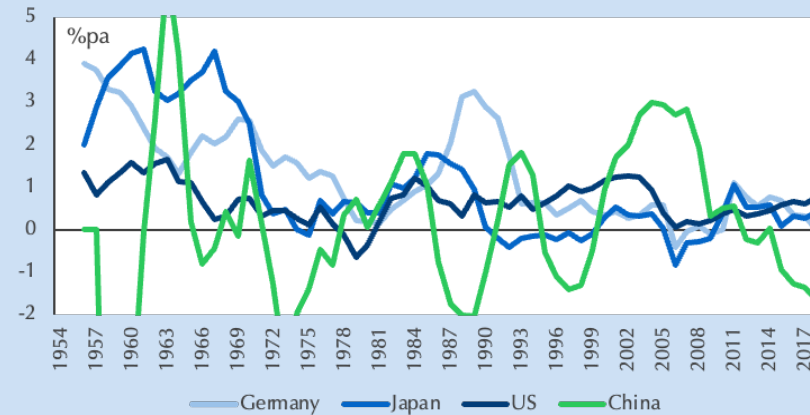
Total factor productivity by 3-digit industry



Capital stock at PPP, selected countries



Total factor productivity, selected countries

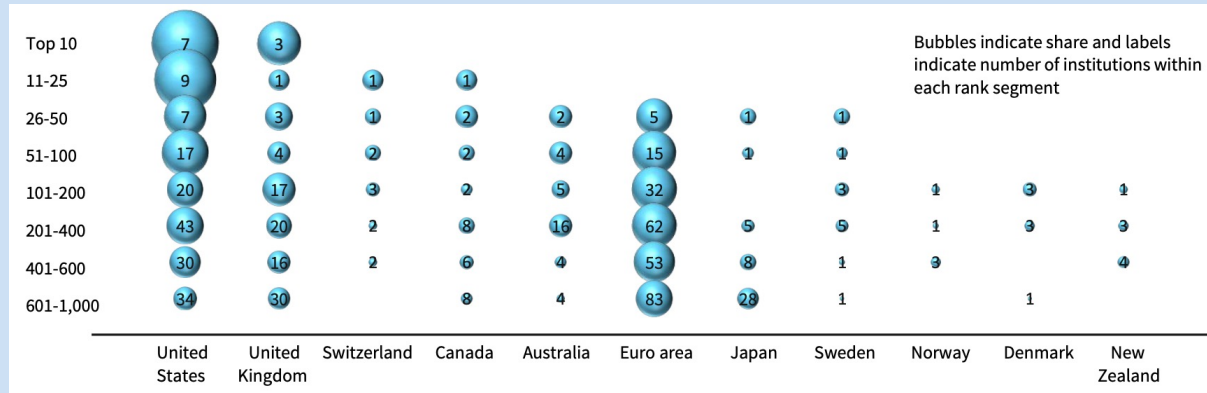


Source: LSEC, Penn World Tables, US BLS, Thematic Markets

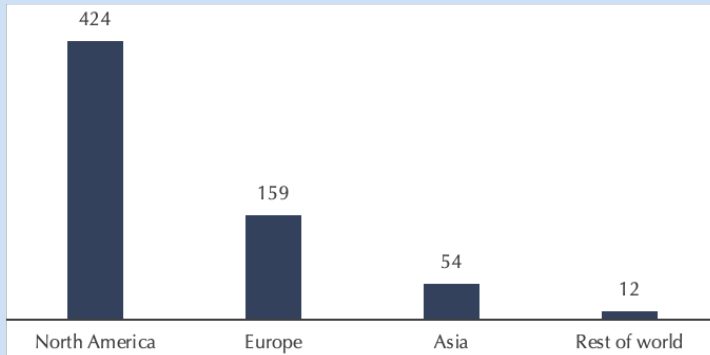


Why is Localization seemingly only in the US? "Ecosystems"

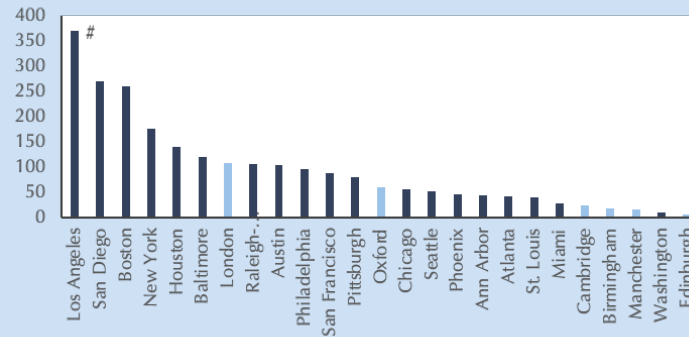
Relative density & number of the top 1,000 universities, selected countries



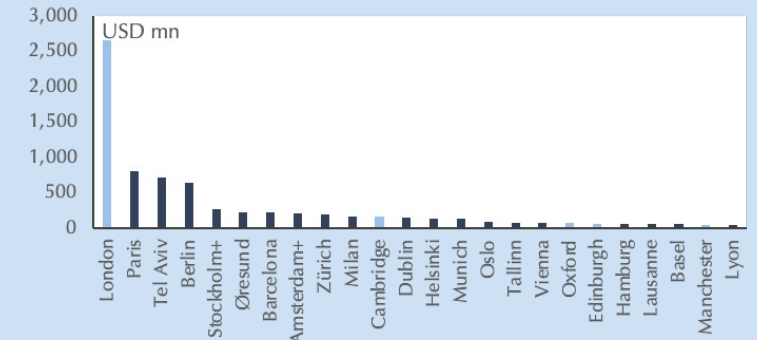
Private equity funds raised by region, USD bn



University ecosystem spin-outs, 2016-'18



European university ecosystem seed-stage investment values, 2018



Source: McKinsey, SQW, Times Higher Education, Thematic Markets



Global bifurcation & its distributional consequences

- *Global entropy* is bifurcating finance, trade & technology along lines of geopolitical alliance
 - Two technology leadership centers: Anglo-sphere & China
 - Access to cutting-edge technologies increasingly controlled *within* spheres
 - Trade restrictions increasing as *economic incompatibility* grows
 - Defense arms race to reinforce technology & capex booms
- Localization implies less TFP transfer, thus less convergence
 - Emerging markets convergence largely due to “hyperglobalization”
 - Globalization transferred both capital & know-how (TFP)
 - Localization leaves TFP & capital laggards behind
 - Europe largely stopped converging in the 1990s, most EMs by 2010

