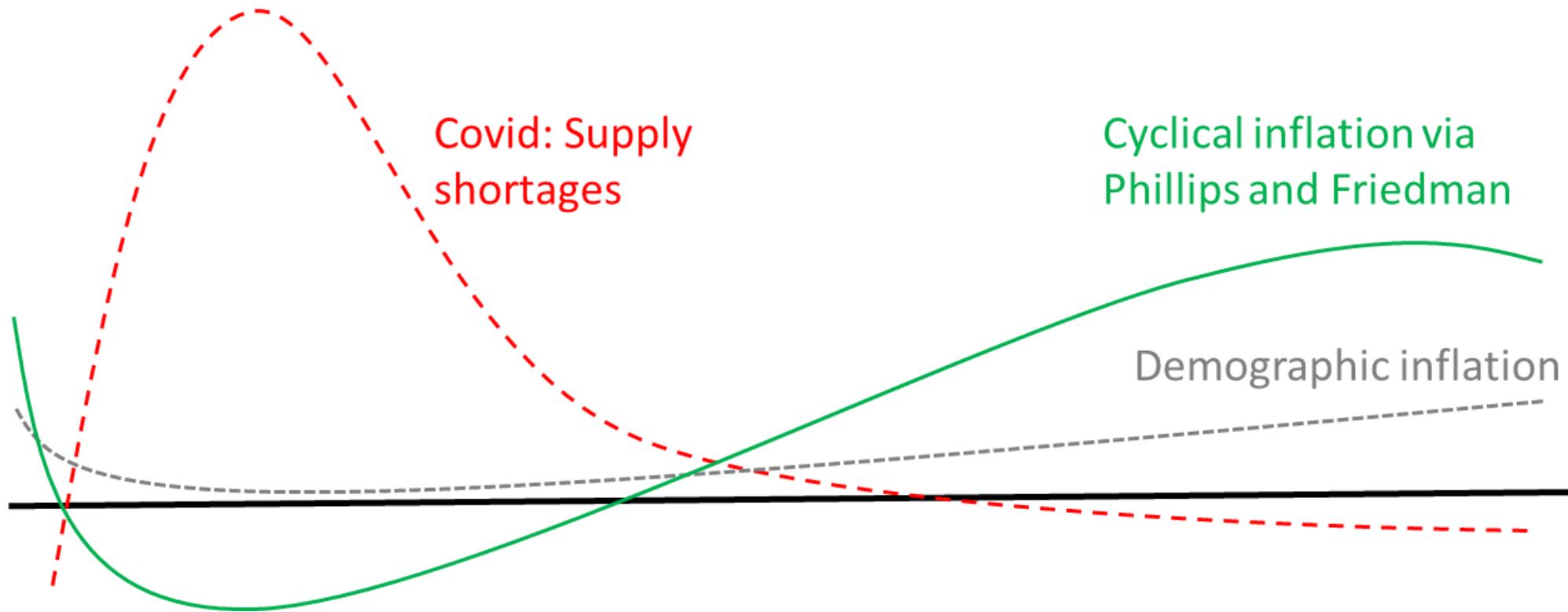


May 2022

The Great Demographic Reversal

3 Inflation Cycles

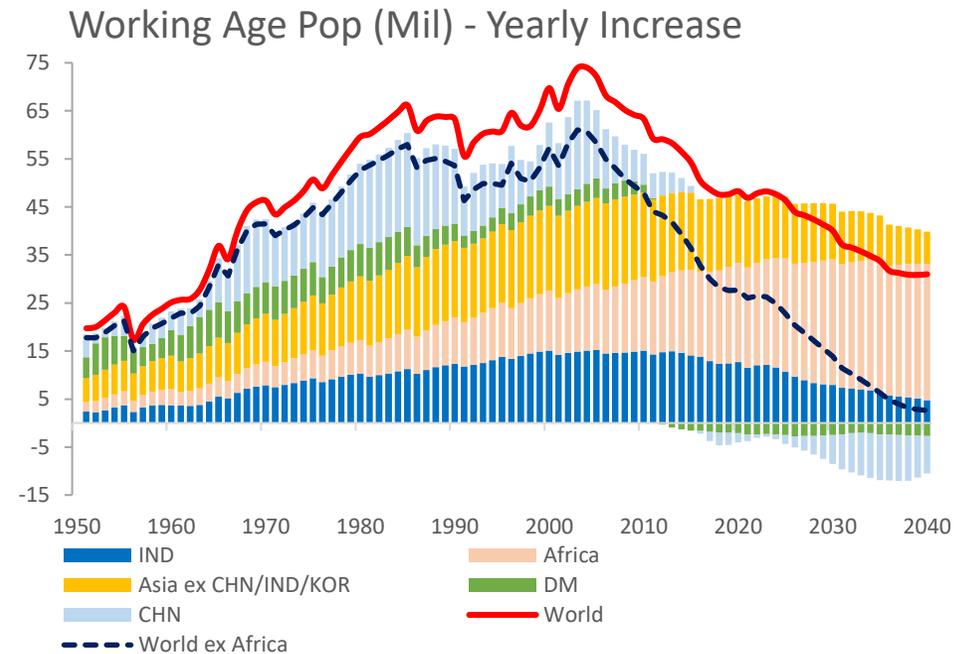
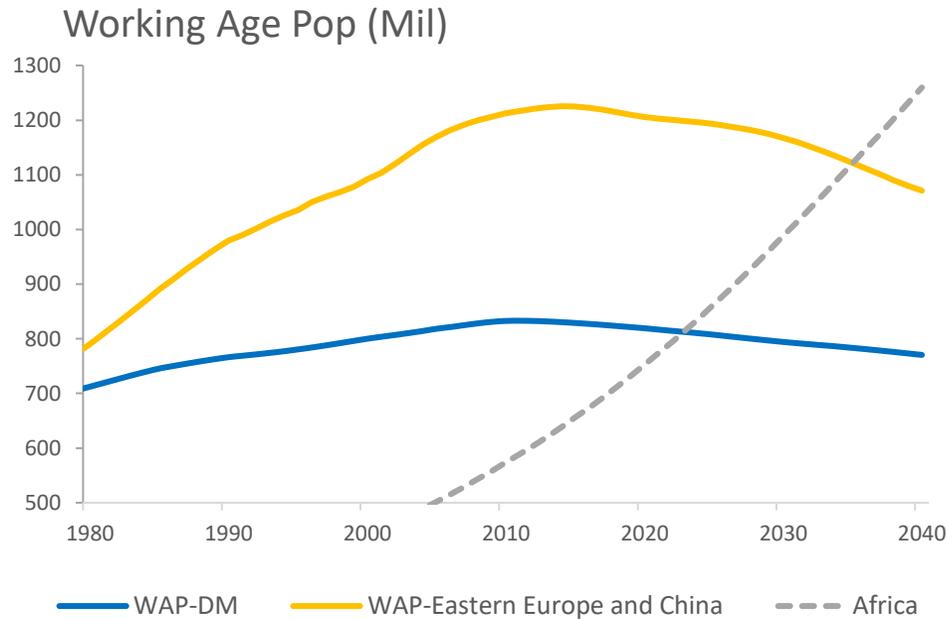


The Demographic 'Sweet Spot'

A Triple Demographic Shock

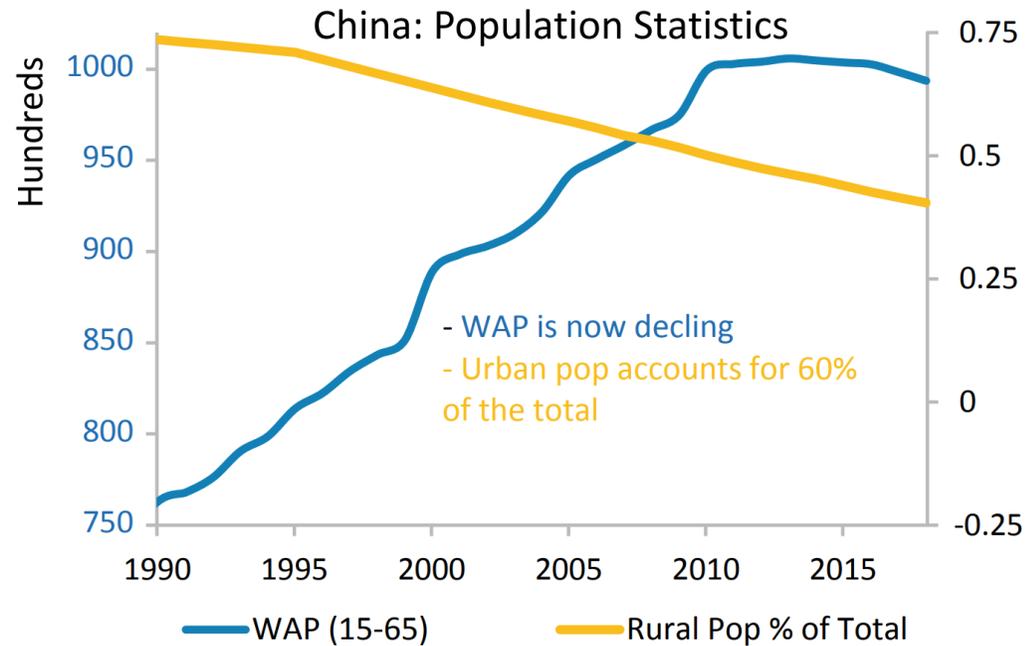
Globalisation...

...and demography

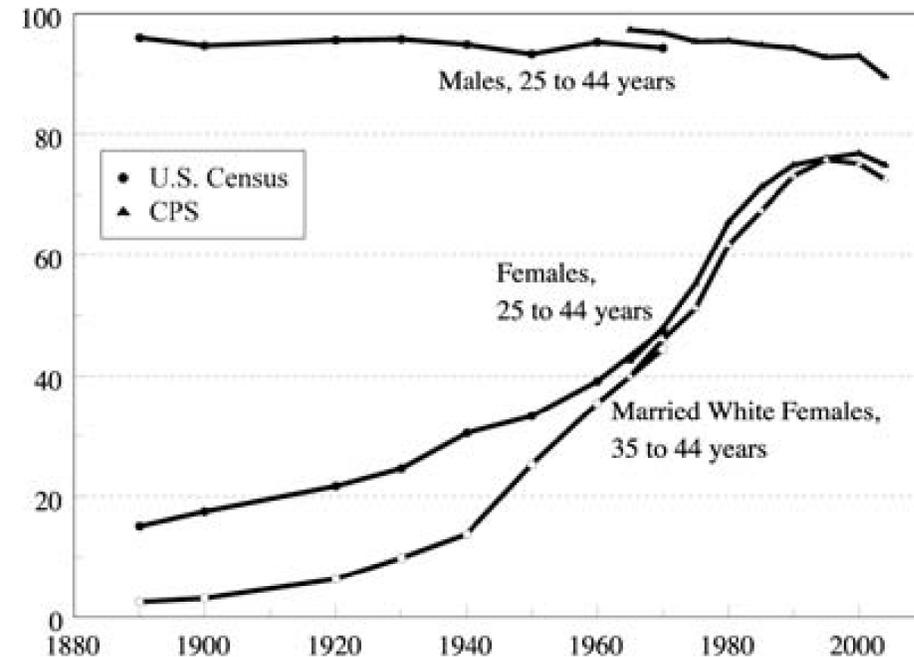


A Triple Demographic Shock

China's internal migration



Female labour force participation



Demography and Inflation: Stolper-Samuelson

Dependents (Young, Old) Consume
But Don't Produce

↓
Dependents
Inflationary

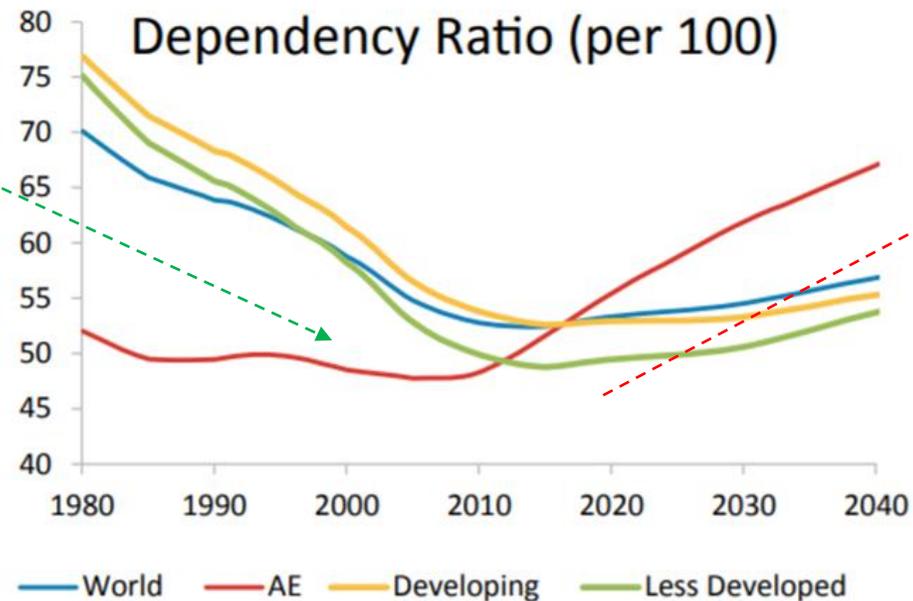
Workers Consume + Produce + Save
Wages < Production, Consume < Wages

↓
Workers
Deflationary

More Workers
Than Dependents

=

Inflation Falls

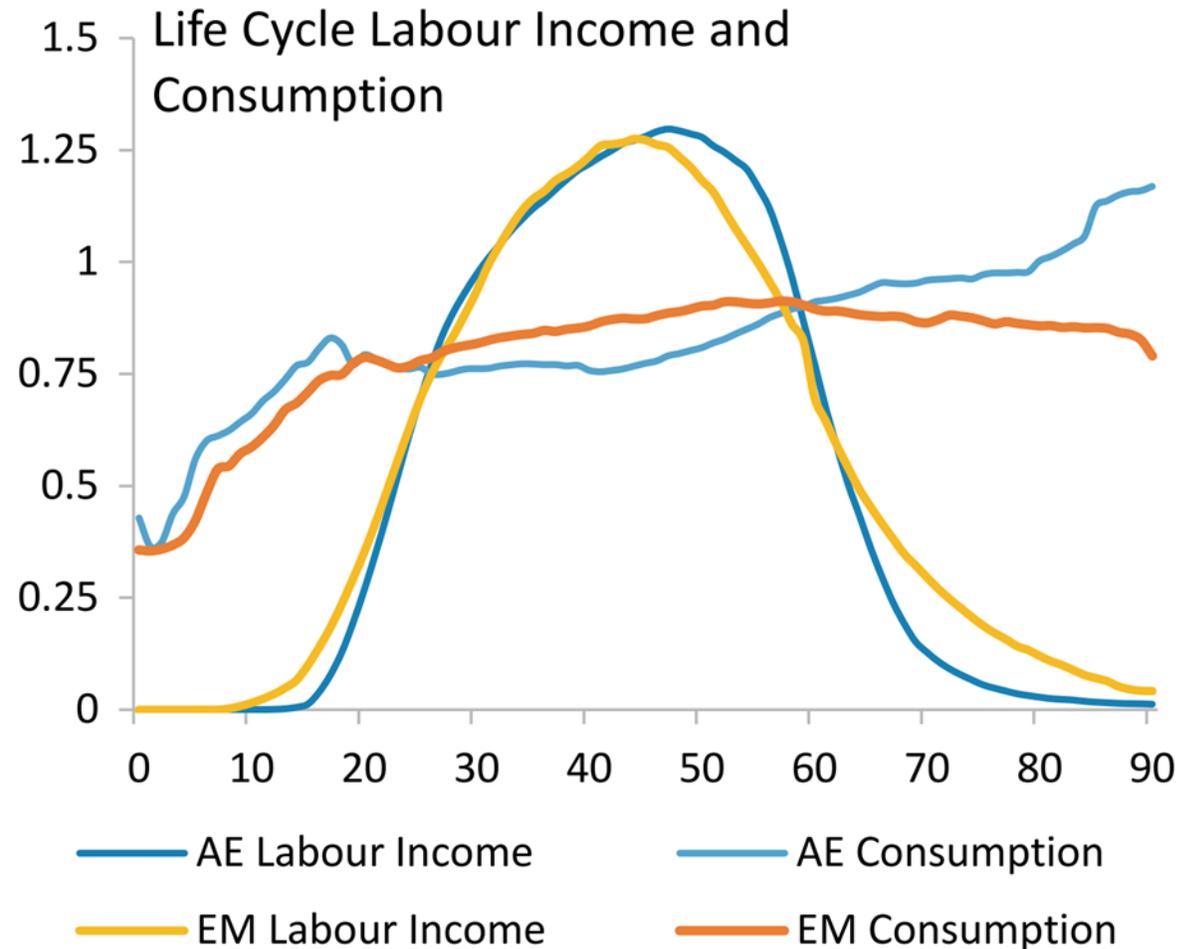


More Dependents
Than Workers

=

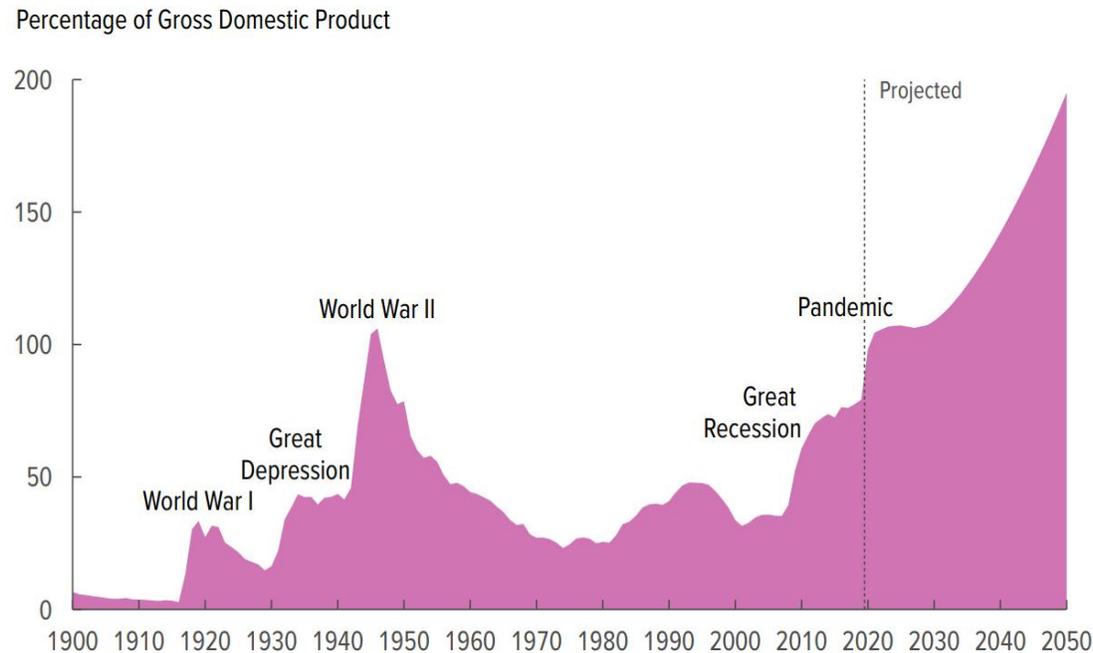
Inflation Rises

Private Dissavings Related to Ageing



Demography, Debt and Inflation: Political Economy

US Pandemic Debt is a Drop in the Ocean



Critical assumption: Pension, health benefits whittled down to some extent, not excessively

How to finance debt?

Productivity, Growth?

Taxation

Aggressive rate hikes

Inflation

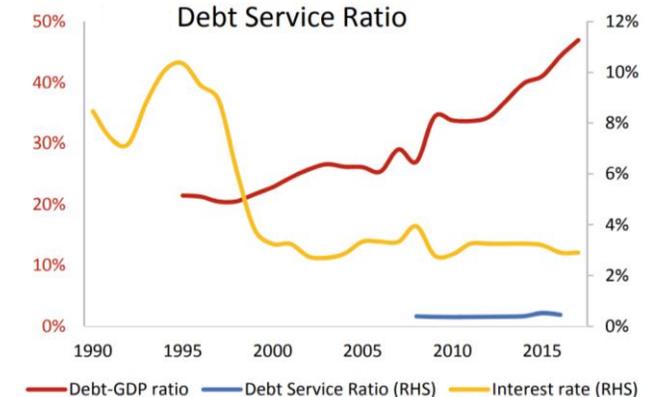
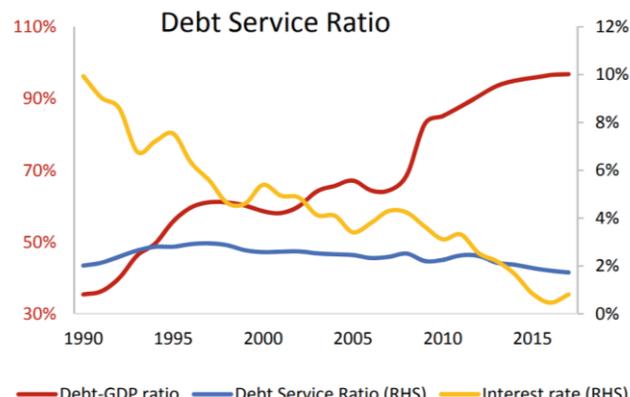
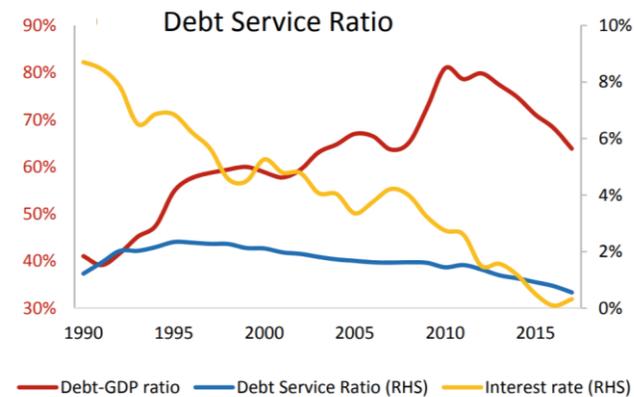
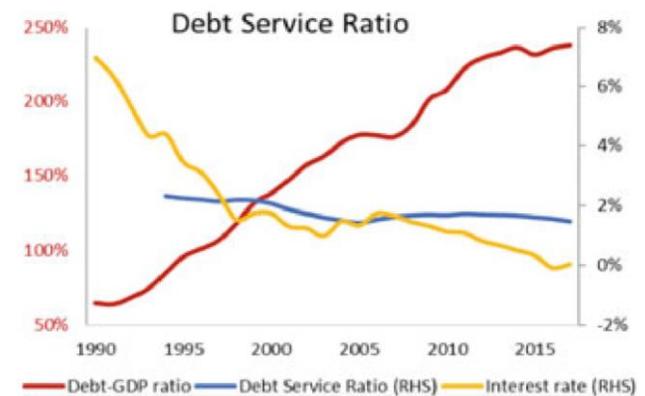
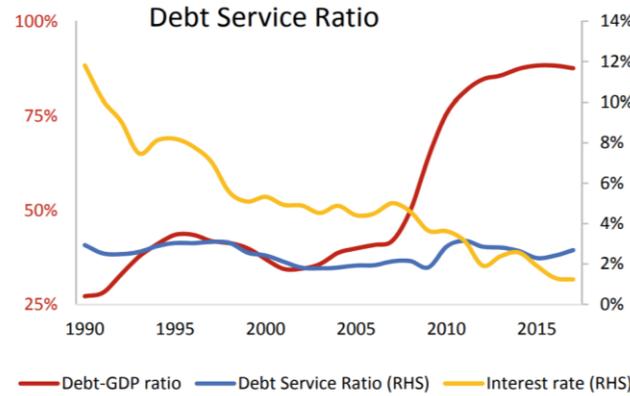
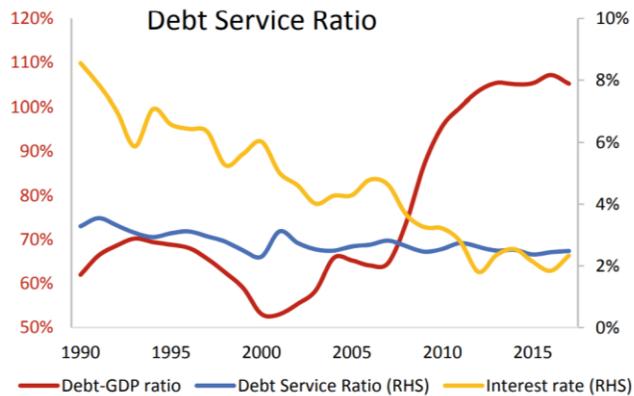
Balance Sheet expansion: Turn bonds into variable coupon consols

The Pushback:

- (i) Why Didn't It Happen on Japan?
- (ii) Inequality Will Depress r^*
- (iii) Timing

1. Why Didn't It Happen in Japan?

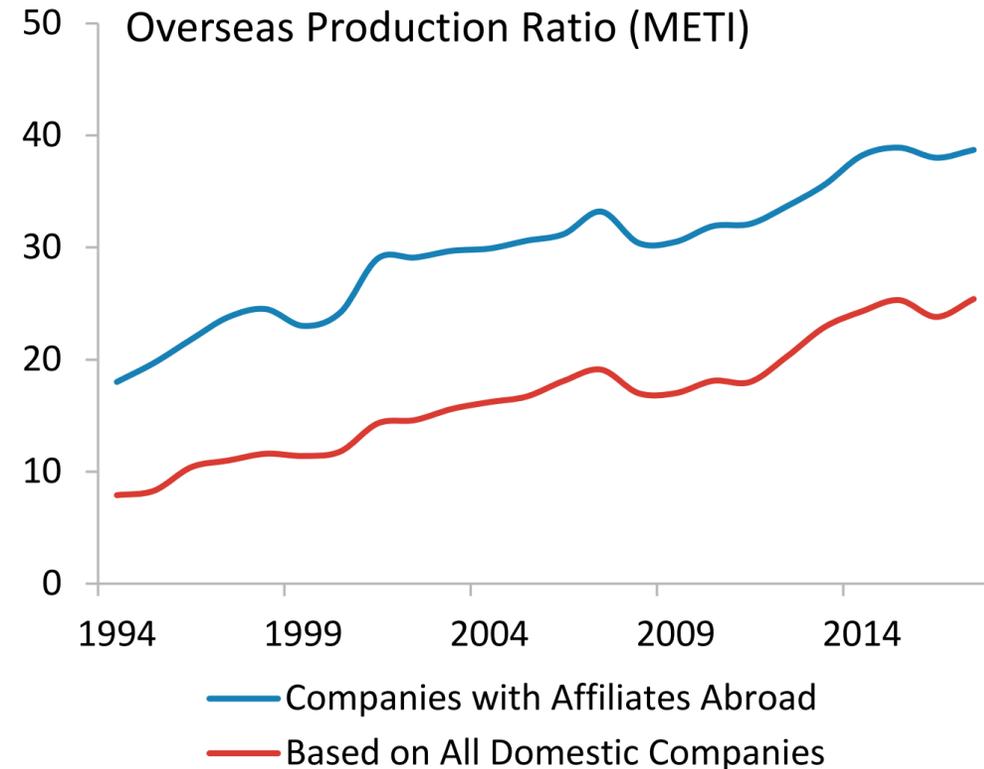
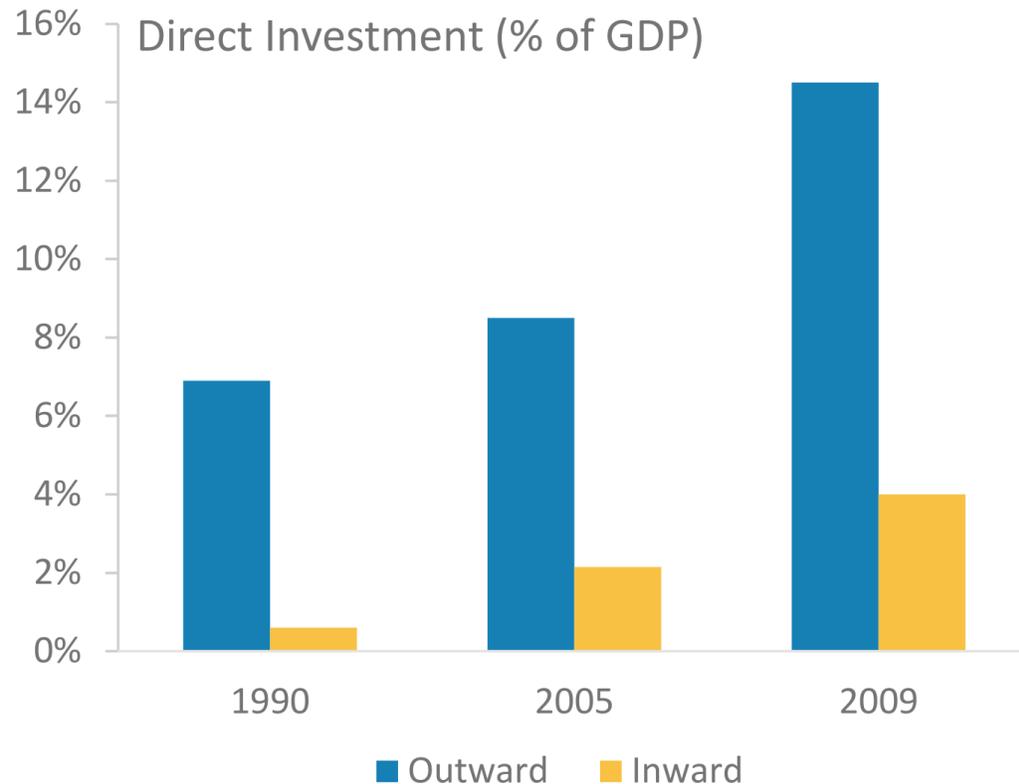
Japan was not unique, nor resistant to global disinflation and the trend of falling interest rates



Japan's Outbound FDI was an 'Escape Valve'

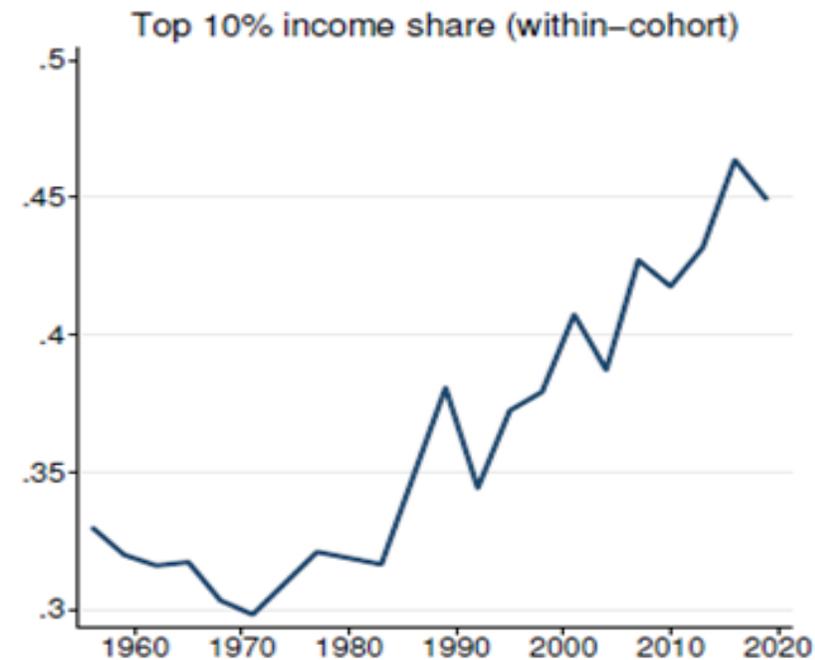
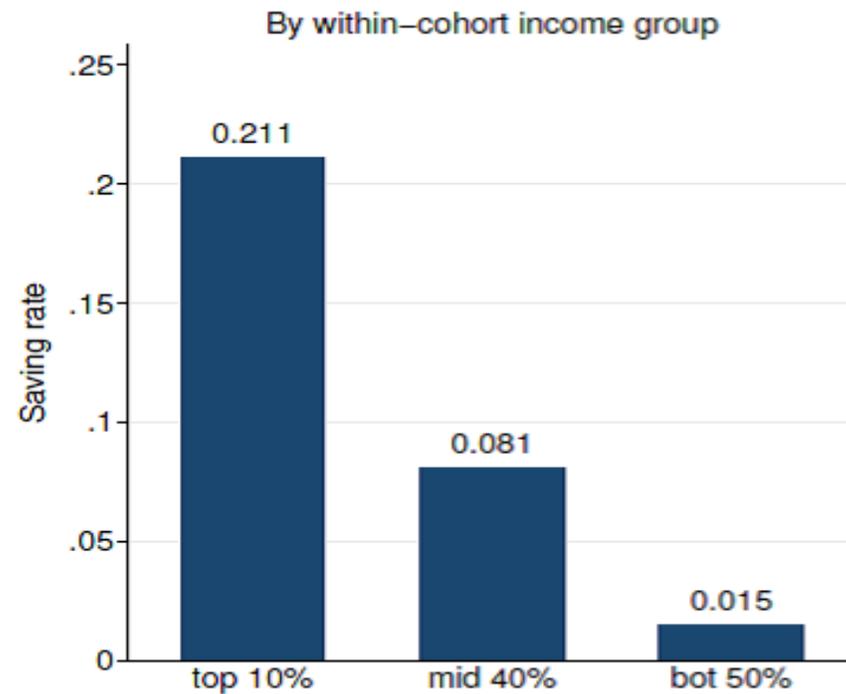
Without the global element, Japan demography forced to explain growth, inflation, rates

Corporates understood the global labour supply shock and used Outbound-FDI as a 'Escape Valve'



2. Can Inequality Lower r^* , Even if Ageing Raises It?

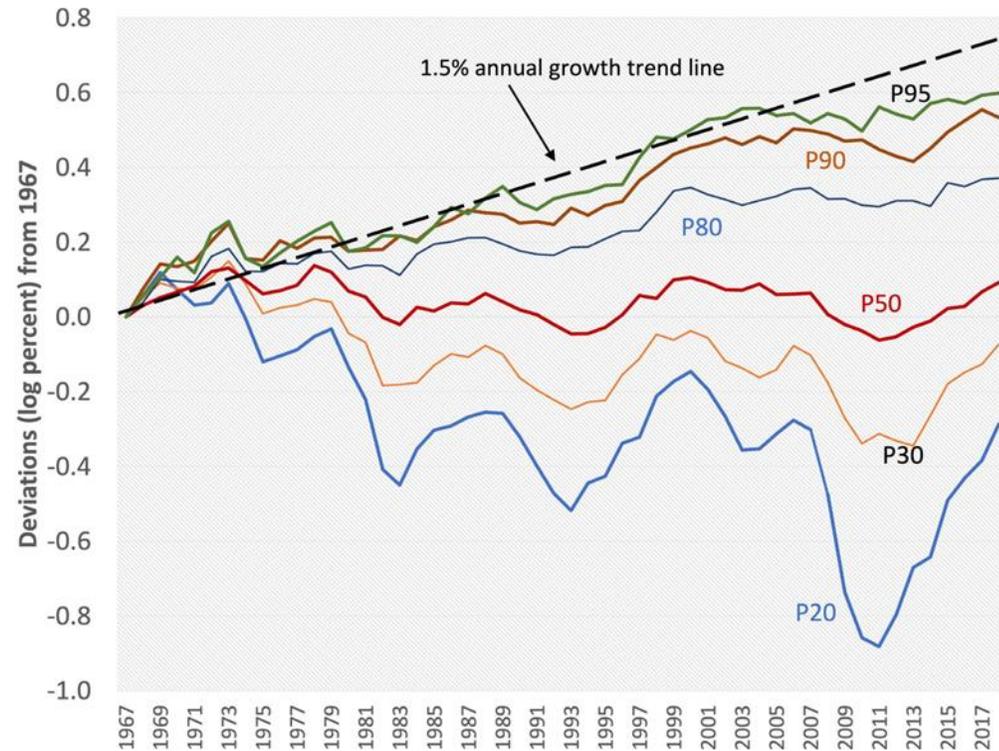
Mian, Straub, Sufi: (Savings flows of the rich > demographic dissaving) = falling r^*



US Inequality is Globally Endogenous

Guvenen at JH: Share of top 1%, 10% has grown because of worse fortunes for the poorer 90%...

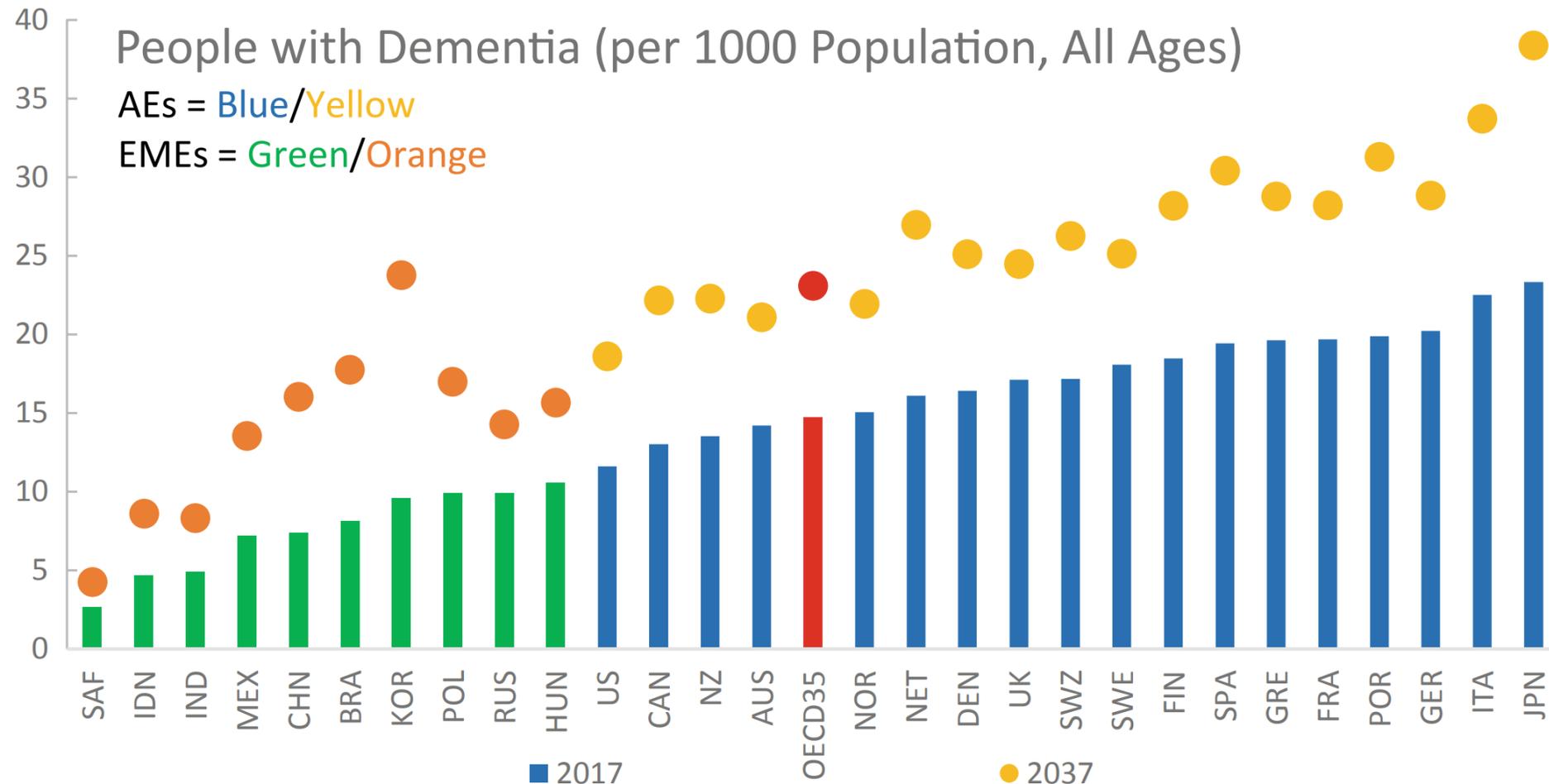
...and the lower cohorts were directly challenged by China's labour force



	USA/China	France/Poland
2000	34.6	3.9
2001	30.6	3.3
2002	27.4	3.5
2003	25.0	4.0
2004	22.9	4.2
2005	20.4	3.8
2006	18.1	3.7
2007	15.2	3.5
2008	12.2	3.0
2009	10.8	3.7
2010	9.7	3.3
2011	8.4	3.3
2012	7.5	3.4
2013	6.7	3.4
2014	6.3	3.3
2015	6.0	3.4
2016	5.9	3.4
2017	5.6	3.2
2018	5.1	2.9

Source National Sources

Most Critiques Involving Savings Ignore Dementia



3. Doesn't the Central Bank Control the LT Inflation Rate?

What if the central bank determines the inflation rate in the long run?

Last 30 years:

Strong positive supply shock, particularly from China

Central banks easily incentivized to allow lower inflation along with more stable growth

Next 30 years:

Higher ageing-related fiscal spending

Incentivized to accom. Inflation: Seignorage, protect growth, (more easily) employment

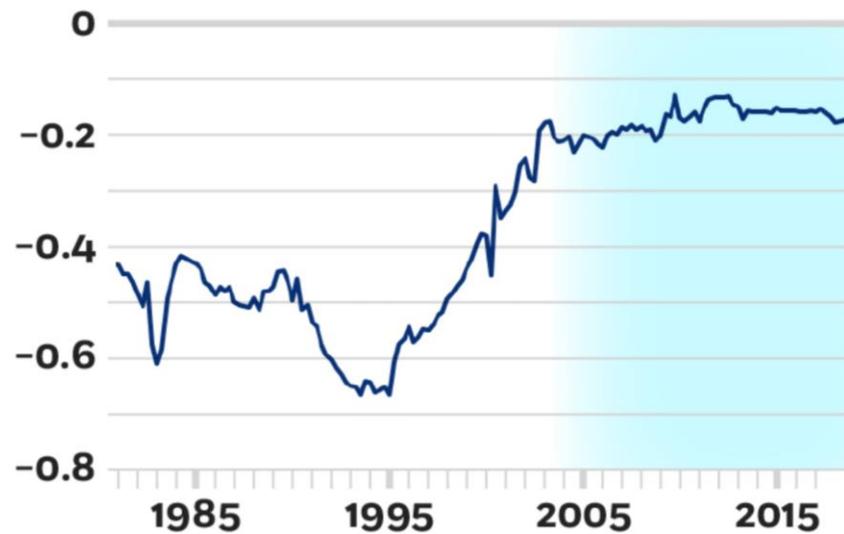
Continues during acceleration of debt until debt/GDP looks sustainable

The Current Inflation Surge

The Fed Didn't Kill the Phillips Curve, China Put it in a Coma

Phillips curve's slope

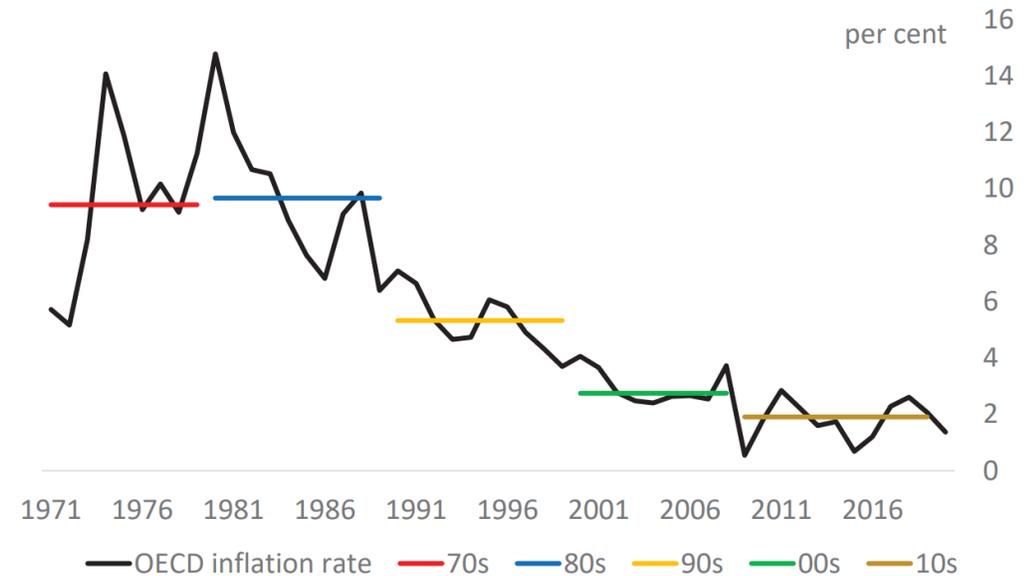
Closer to zero = weaker connection between US unemployment rate and previous 20 years of price inflation



Hooper et al., 2019

China Disinflated the World, and Raised Growth Too

Chart 2: Global Inflation

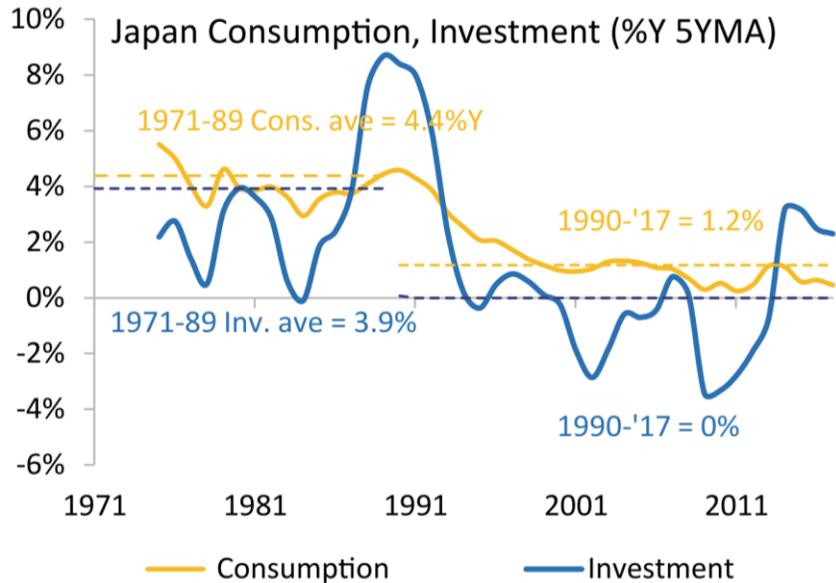


China's Global Disinflationary Impulse Has Passed

China: Japan-esque labour constraint

Services provide employment, **hi-tech** provides productivity, **SOEs** provide state control

Manufacturing, real estate losing importance



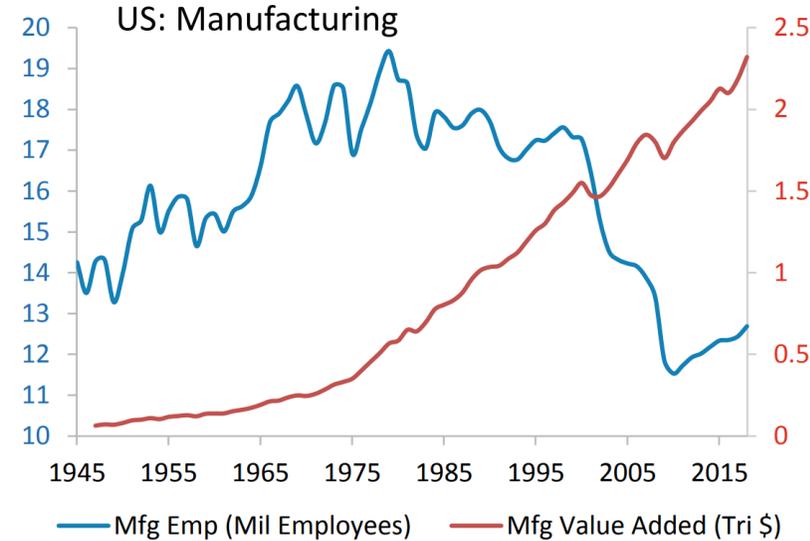
Source: China Ministry of Commerce

Geopolitical Reshoring of Mfg inflationary?

US/AE: capital/labour rises = disinflationary

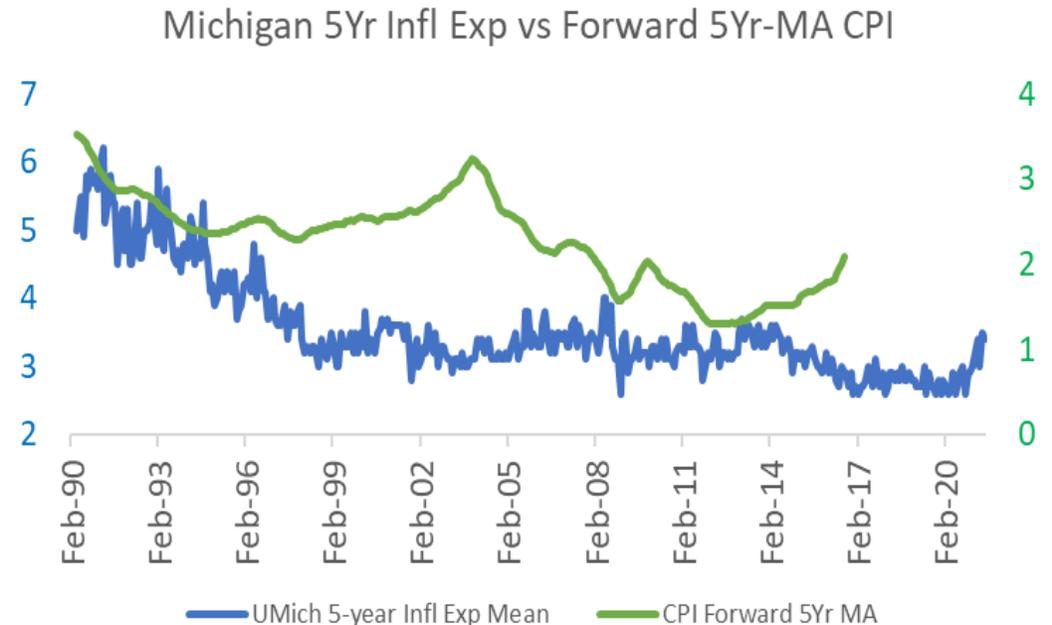
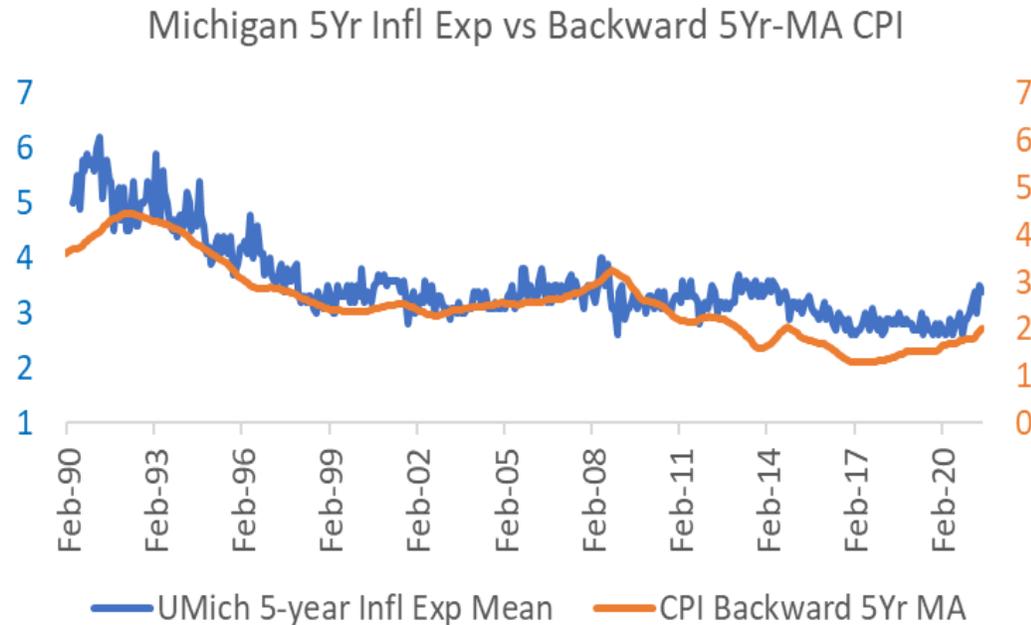
US Inc.: globally sub-optimal cost of production

A **slow reversal** of Pierce and Schott's "surprisingly swift decline of US manufacturing employment"?

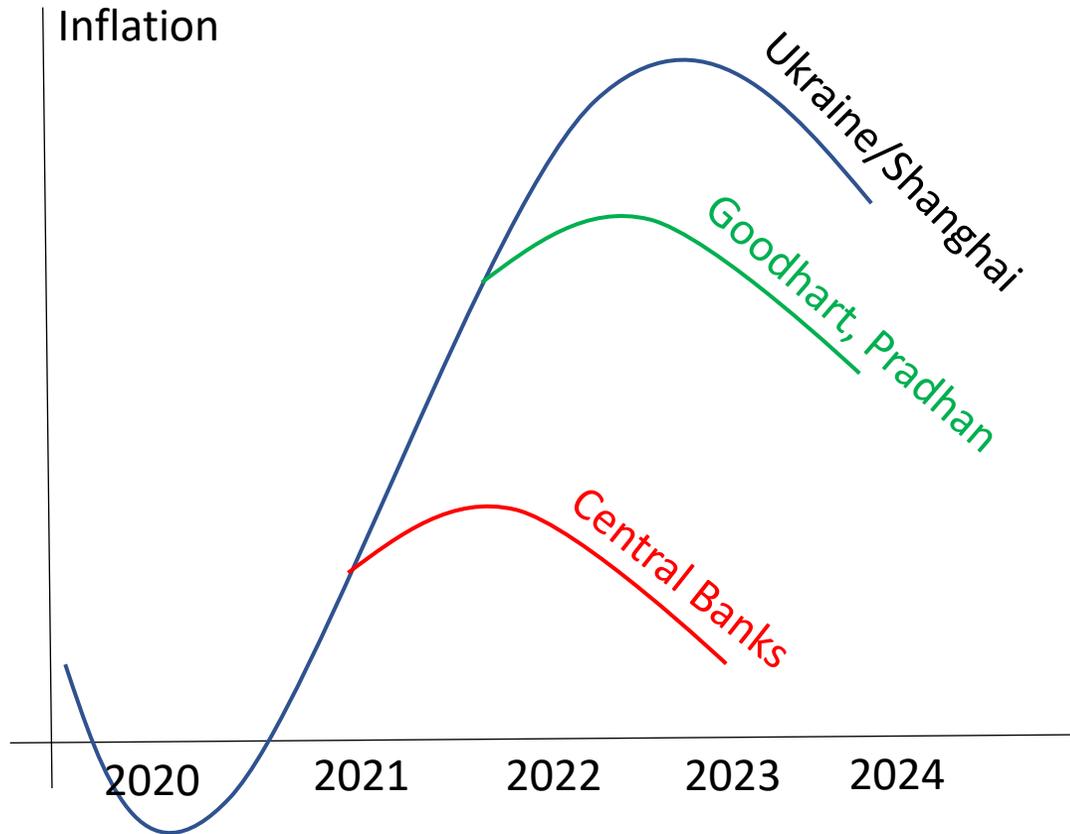


Source: BEA, Pierce and Schott (2016), "The Surprisingly Swift Decline of US Manufacturing Employment"

What About Inflation Expectations?



The Current Inflation Surge



Demand shock:

Fiscal policy, especially in USA
Monetary surge, especially in 2020
Summers/Blanchard

Supply shock:

Labour tightening, widespread
The Great Resignation
Covid supply shocks; not over, China
And now Ukraine

Central Banks a long way behind

Taylor rule:

$$i = r^* + 1.5 (\pi - \pi^*) + 1.0 (Y - Y^*)$$

How to Respond to this Surge?

When the disturbance is large, both expectations and wage/price adjustments will react to what *has* happened, not just to expectations of *future* inflation.

Central Bank confidence in anchored expectations is overly optimistic.

A wage/price spiral is beginning in the USA/UK, if perhaps not yet in EU.

The Medium vs. Long-Term Future

It will be a difficult exercise to return inflation to target without having to raise unemployment, perhaps significantly. Employment/financial stability concerns may restrain the speed with which interest rates are raised. Might lead to stagflation.

If stagflation, then the medium-term concerns are:

- Central Bank Independence under pressure
- Threat of fragmentation in EU
- Energy derails monetary policy, food inflation can upend administrations

The Long-term Future:

Demography will be predictably adverse. Falling WAP and rising dependency ratios, except in Africa/India.

Geo-politics adverse for the time being, but highly unpredictable.

The Search for 'Neutral'

The Search for 'Neutral'

As inflation rates rise markedly above target, markets remain on a path of 'price discovery' for the neutral nominal interest rate – both 1y1y (terminal rates) and 'neutral' (5y5y) estimates for markets have risen as inflation has surged.

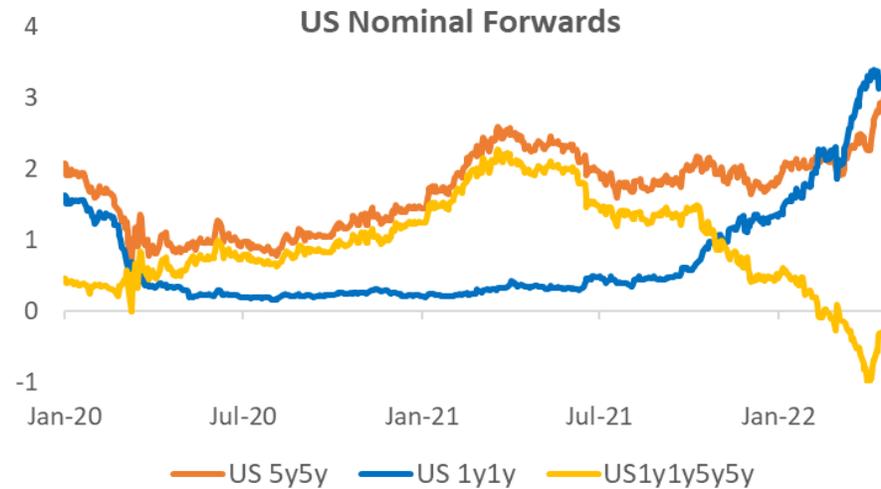
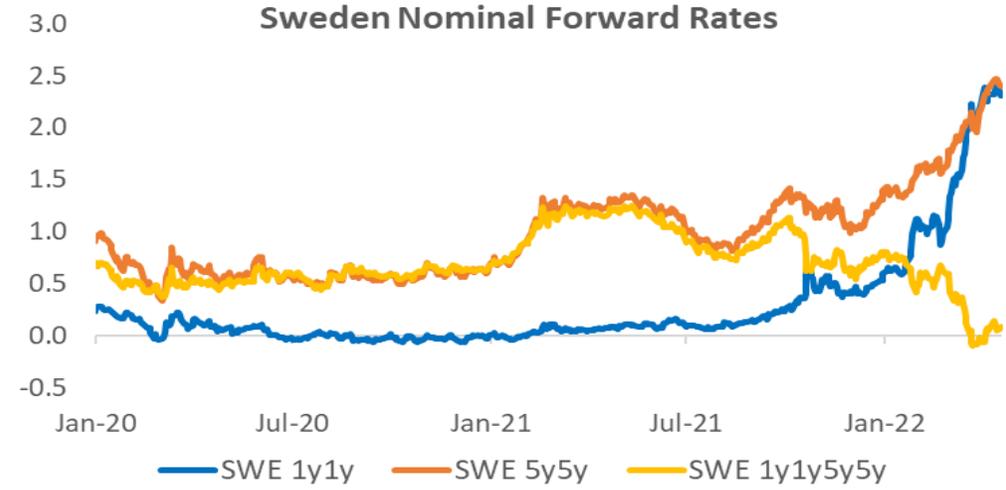
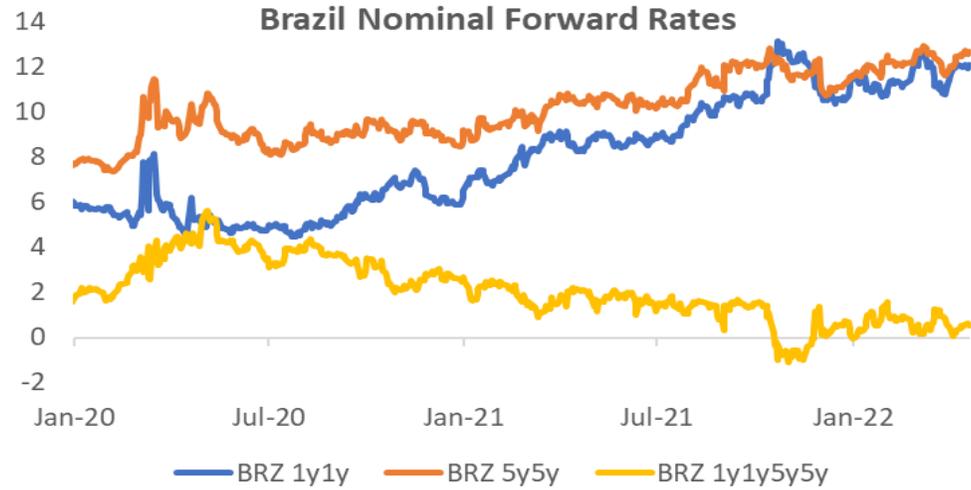
The actual nominal interest rate needed to drive inflation back to target will depend on current levels of inflation, expectations thereof, and the current level of demand.

Assuming that these have already been hit would be premature. It would amount to assuming a success which has yet to be achieved and justified.

Without a peak in inflation (hard to call), positive real rates (Brazil, Mexico close), or significant damage to the real economy (Brazil, Mexico and housing markets in Korea, New Zealand), markets are not convinced that policy rates are near/above a neutral level.

The concept of a neutral nominal interest rate is of little consolation at this juncture.

Markets: Terminal (1y1y) and Neutral (5y5y)



Russia's Optimal Strategy and the Fed vs ECB Divide

Blanchard and Pisani-Ferry:

The market for gas dictated by regional pipelines, but oil easily transported. **Russia thus faces inelastic demand from Europe for gas and elastic demand for oil.**

Russia: no monopolistic power for oil, but a near-monopoly supplier for gas.

The optimal strategy for Russia then must be that it produces as much oil as it can (being a price-taker) and **reduces its gas supply to Europe to raise the monopoly price.**

Central Bank Divergence:

ECB, BoE cautious: As much 'stag' as flation = reluctance to be hawkish.

Fed more hawkish: strong starting point, more recent energy shock, and one that is partly a positive shock to investment demand. **The Fed usually starts with a domestic focus, and ends up acknowledging 'international' effects.**

Can the Fed/ECB Ease Even in a Recession?

Sacrifice Ratio Worse:

- (i) Supply effects
- (ii) Capex has not been strong enough (or labour markets would not create overheating) to raise potential growth yet – activity has to fall by much more to create a deep-enough output gap that will lead to disinflation.

What is the ‘model’ behind the Fed’s forecasts?

- Some help from supply effects to allow disinflation without hurting unemployment
- A ‘Blinder’ of a Soft Landing: 6-7 soft landings since the 1960s.

Where could the Fed be wrong?

- ‘Transitory’ is still a risky perspective
- The Fed wanted the 3 hard landings that Blinder documents, all in high inflation periods.