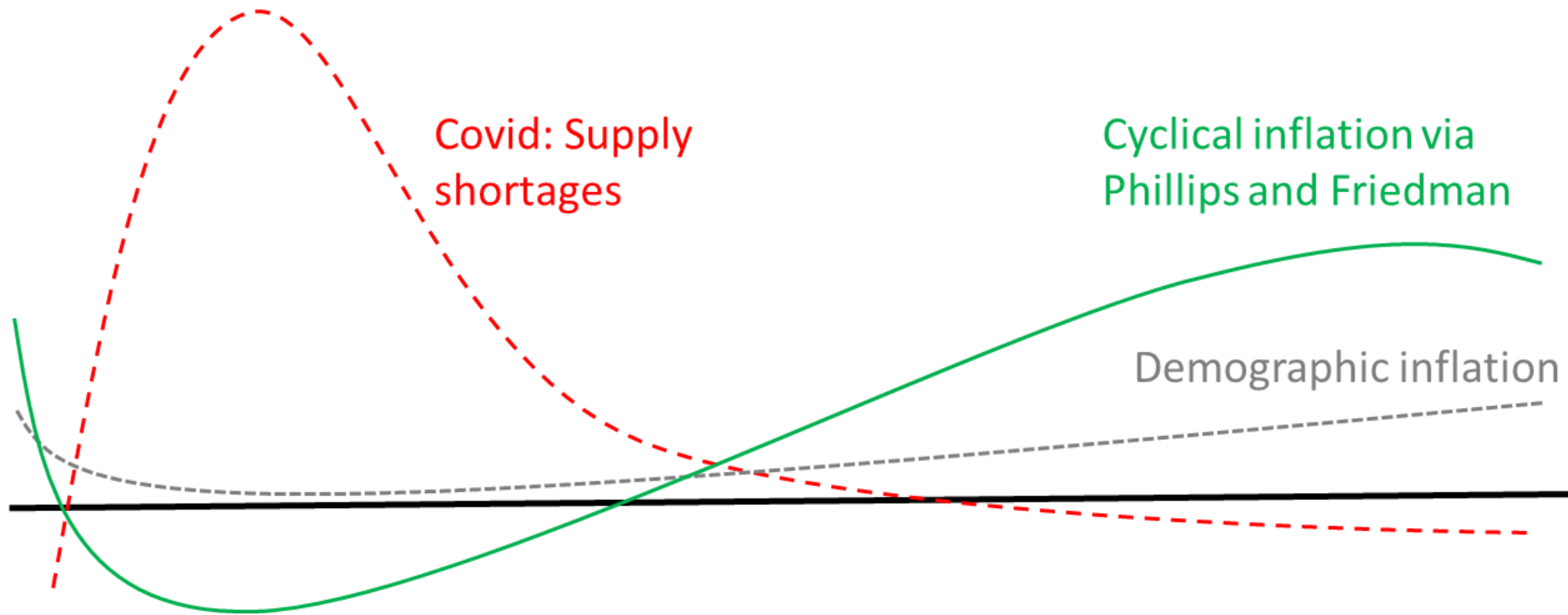


May 2022

# The Great Demographic Reversal

# 3 Inflation Cycles

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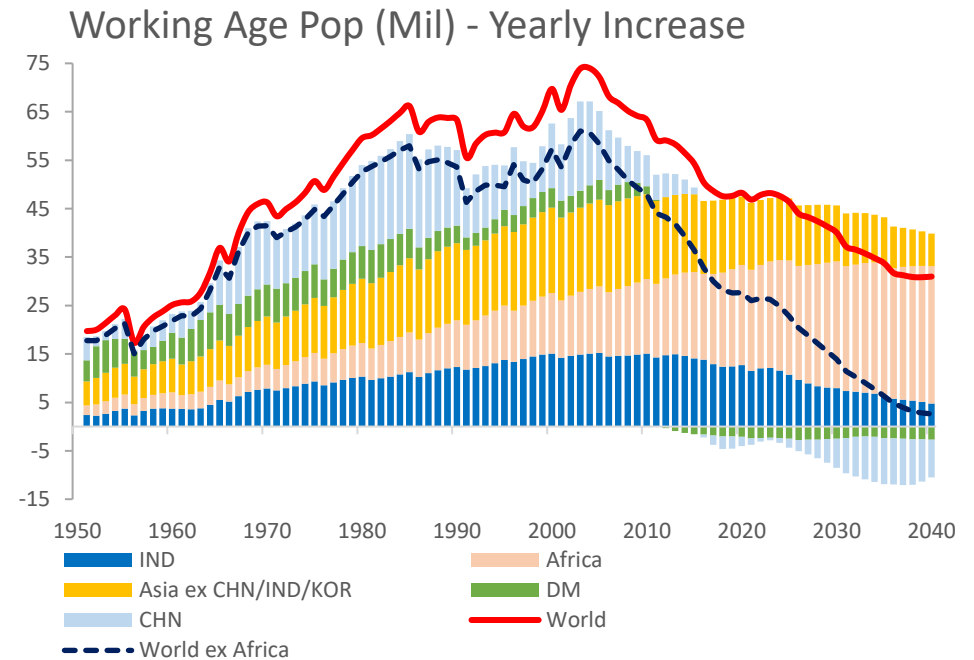
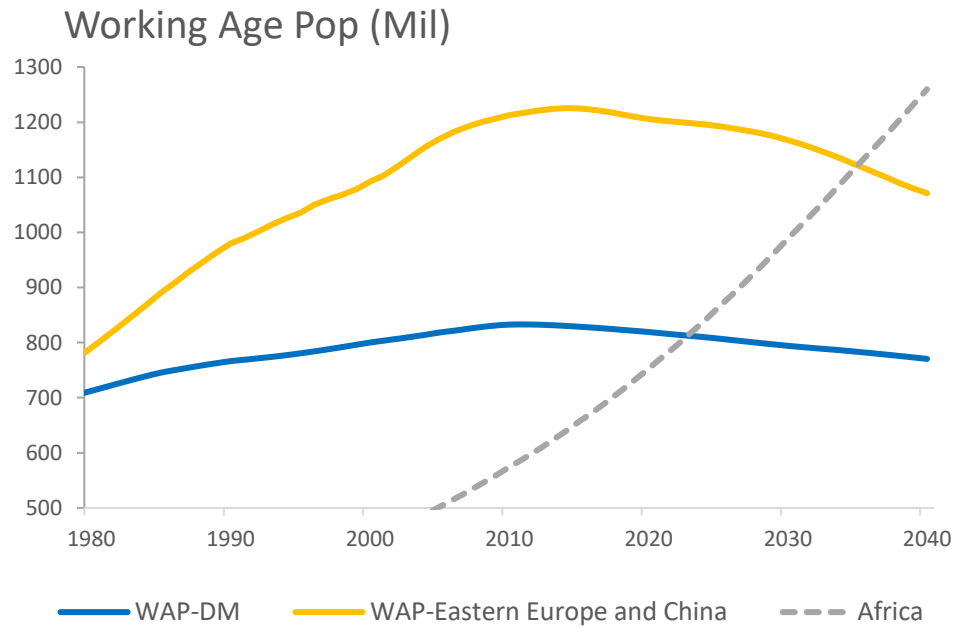


# The Demographic 'Sweet Spot'

# A Triple Demographic Shock

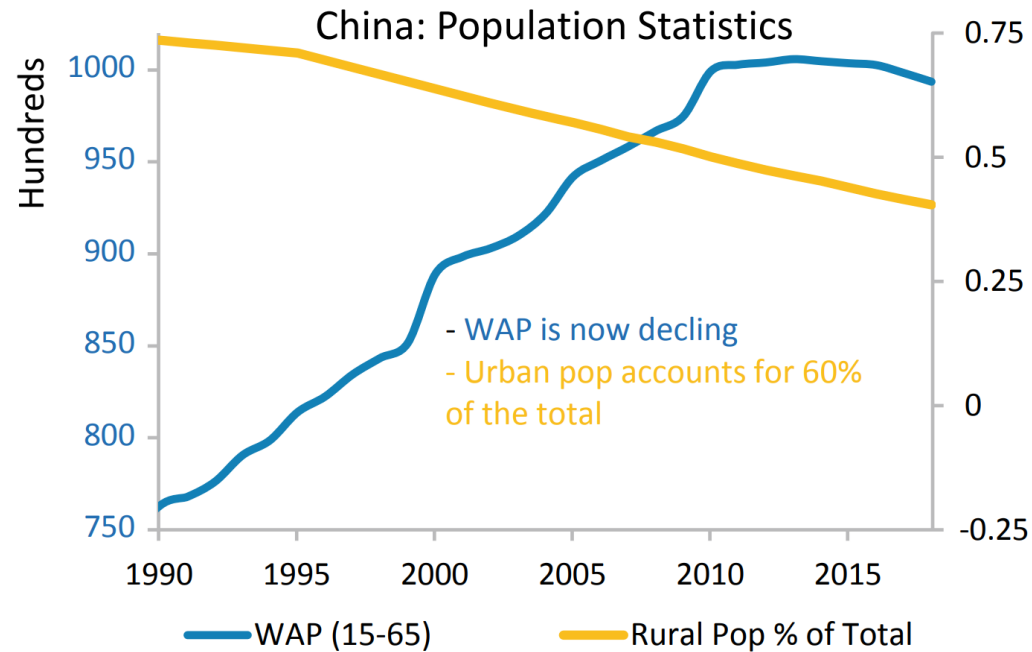
Globalisation...

...and demography

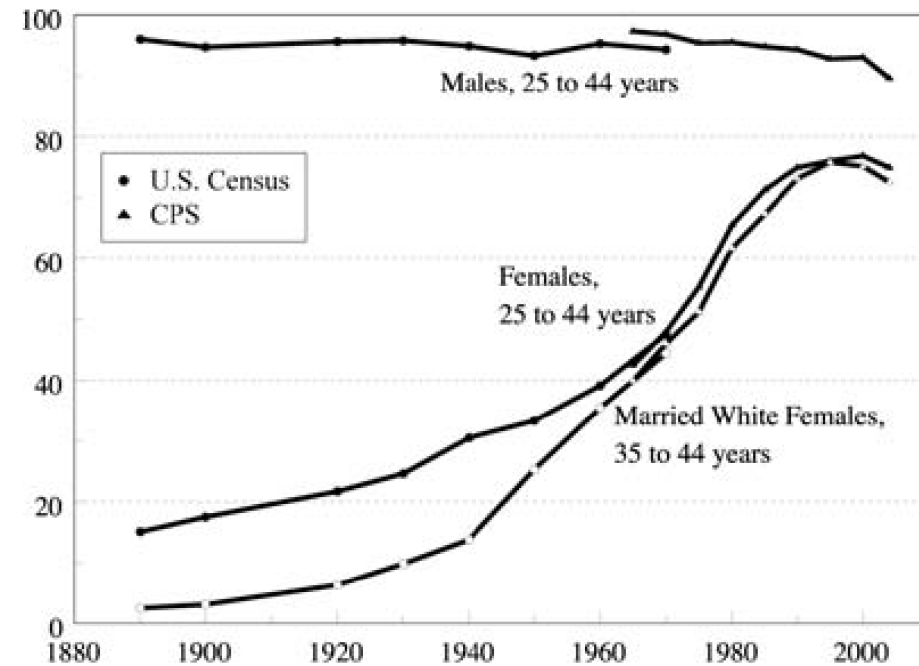


# A Triple Demographic Shock

China's internal migration



Female labour force participation



# Demography and Inflation: Stolper-Samuelson

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

↓  
**Dependents**  
Inflationary

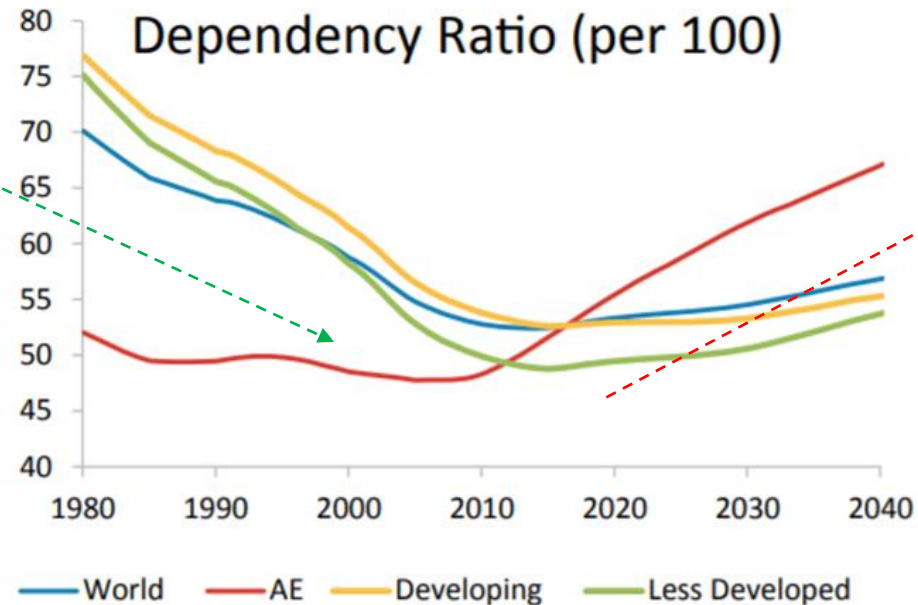
**Workers** Consume + Produce + Save  
Wages < Production, Consume < Wages

↓  
**Workers**  
Deflationary

More Workers  
Than Dependents

=

Inflation Falls

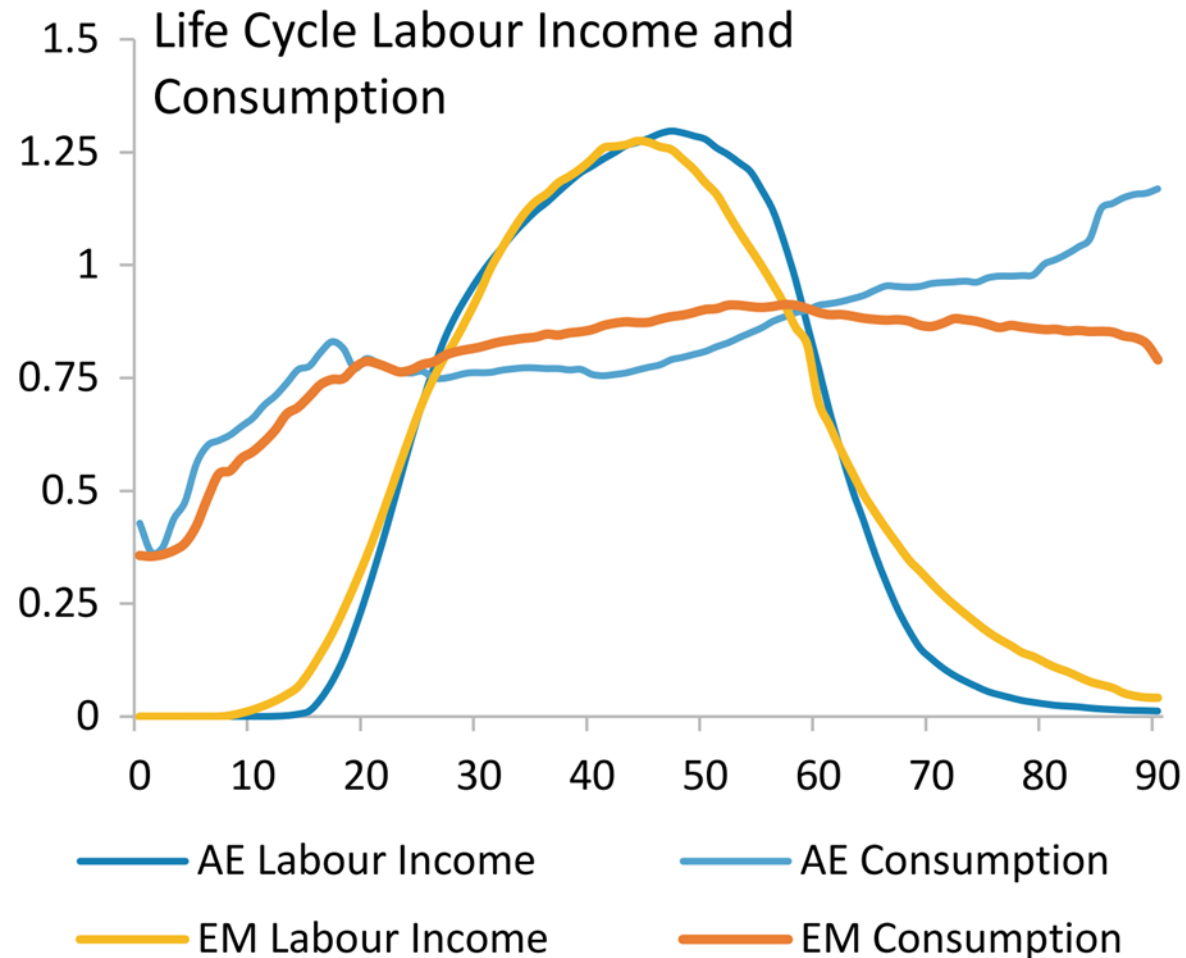


More Dependents  
Than Workers

=

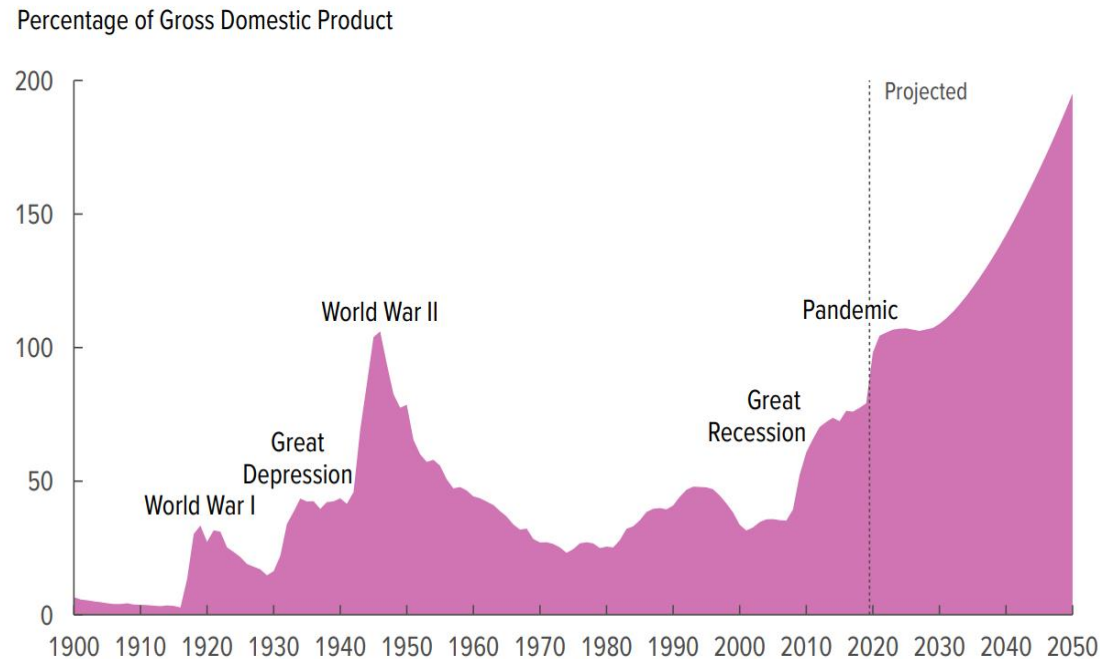
Inflation Rises

# 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

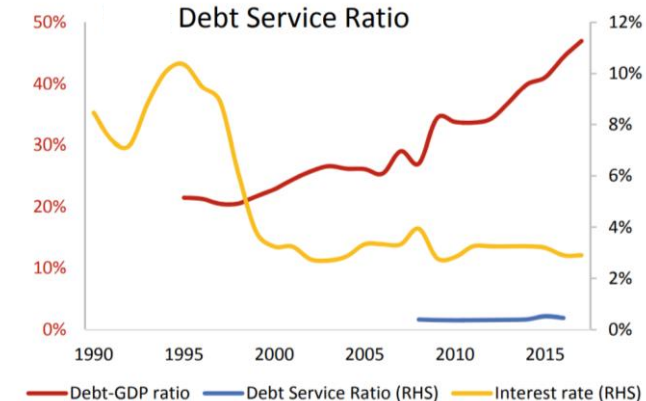
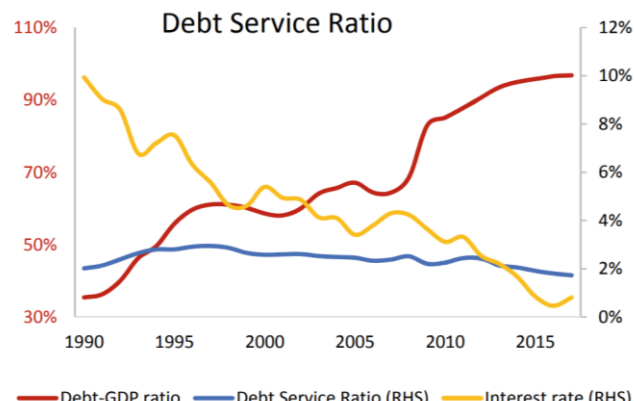
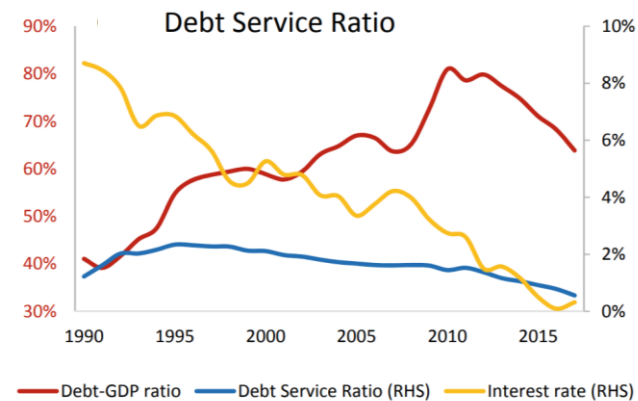
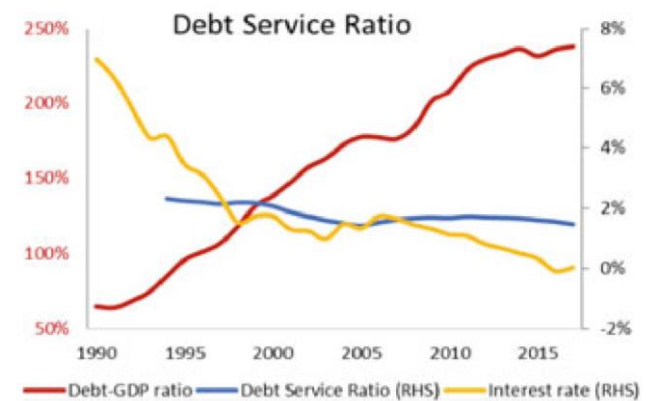
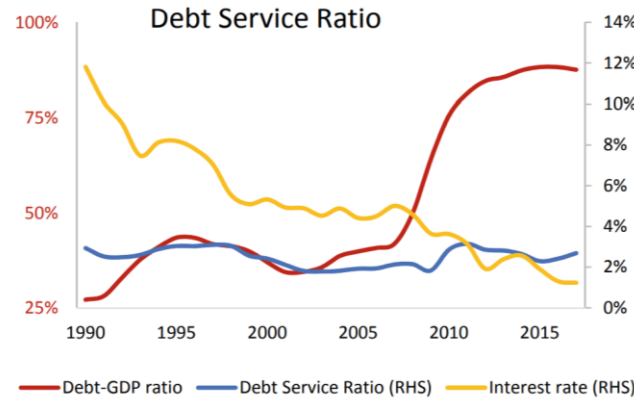
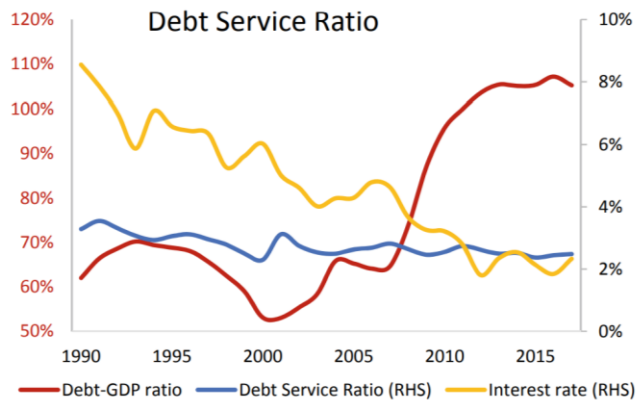


## The Pushback:

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

# 1. Why Didn't It Happen in Japan?

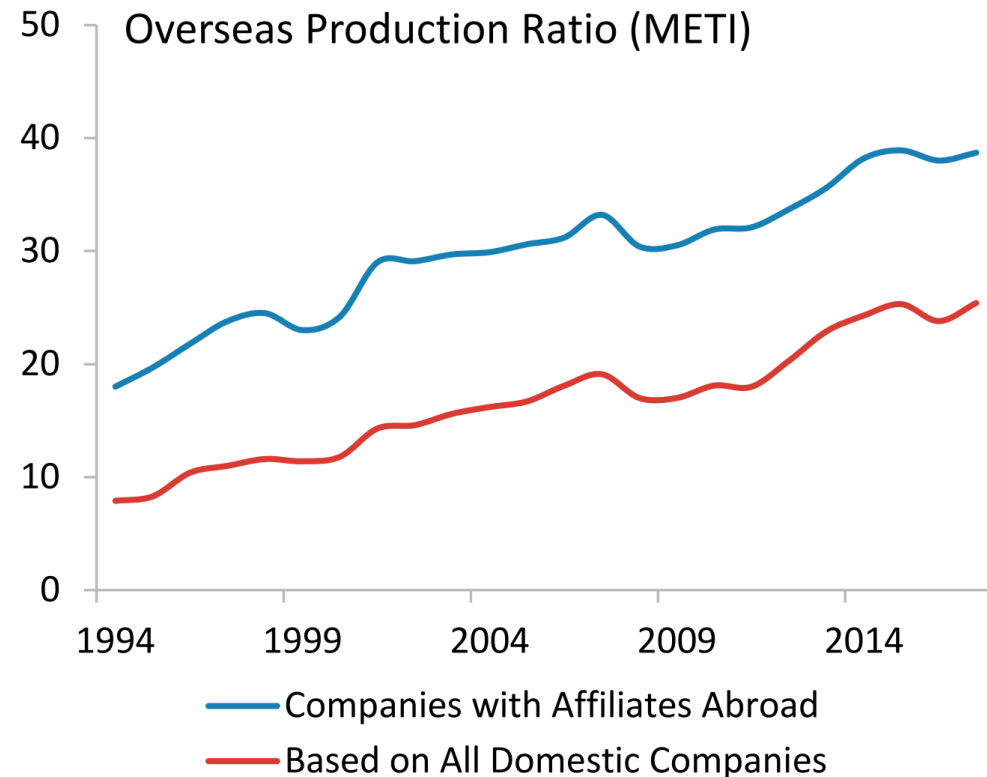
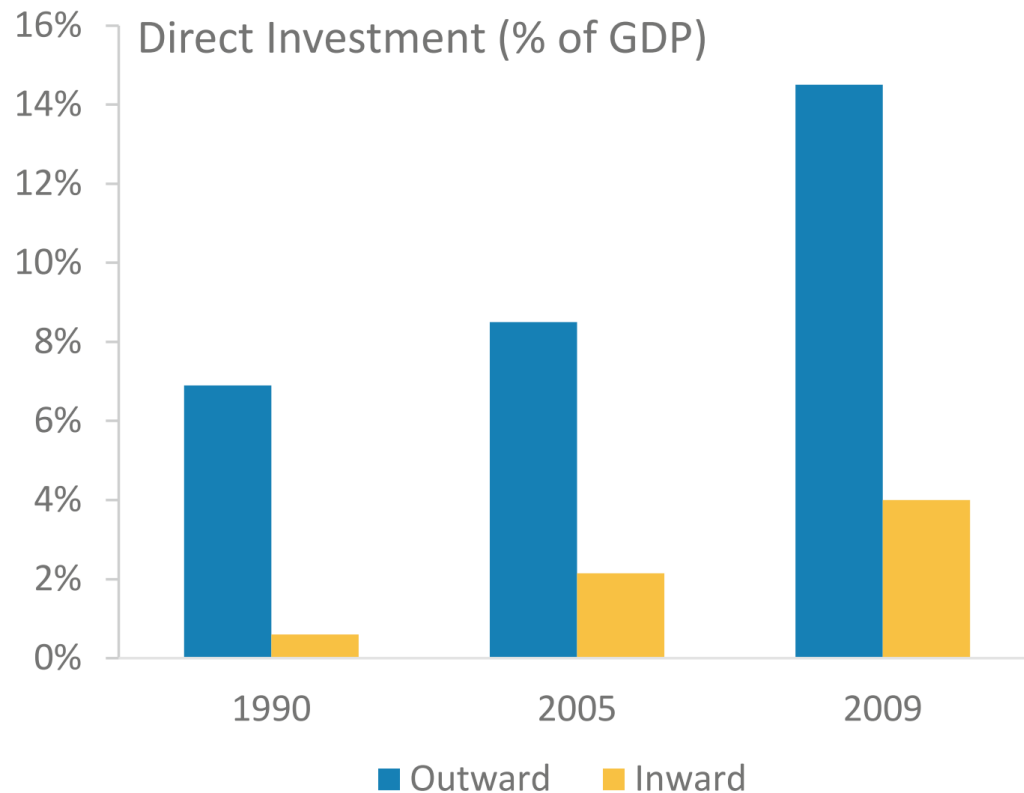
Japan was not unique, nor resistant to global disinflation and the trend of falling interest rates



# Japan's Outbound FDI was an 'Escape Valve'

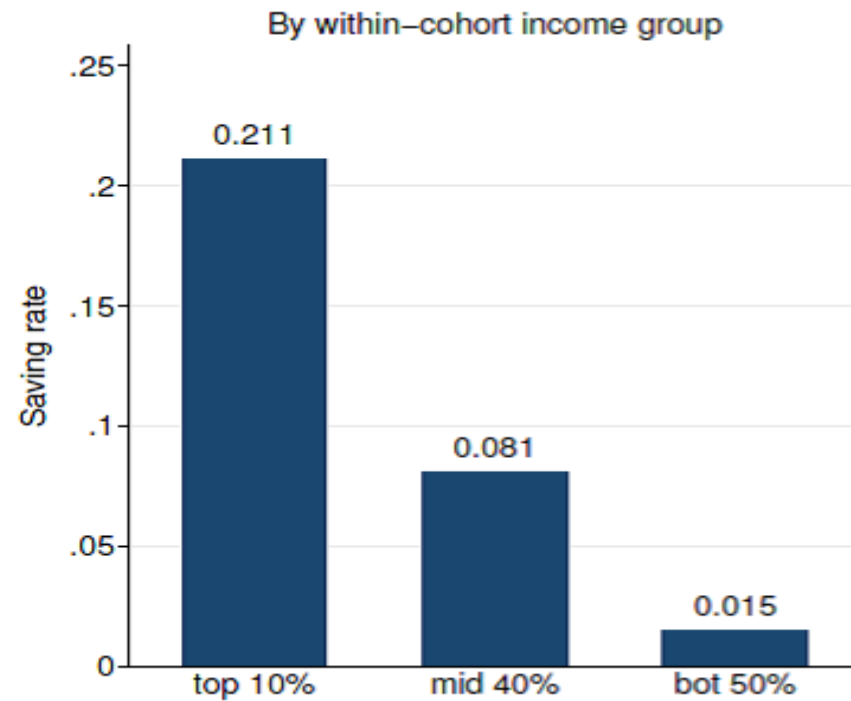
Without the global element, Japan demography forced to explain growth, inflation, rates

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



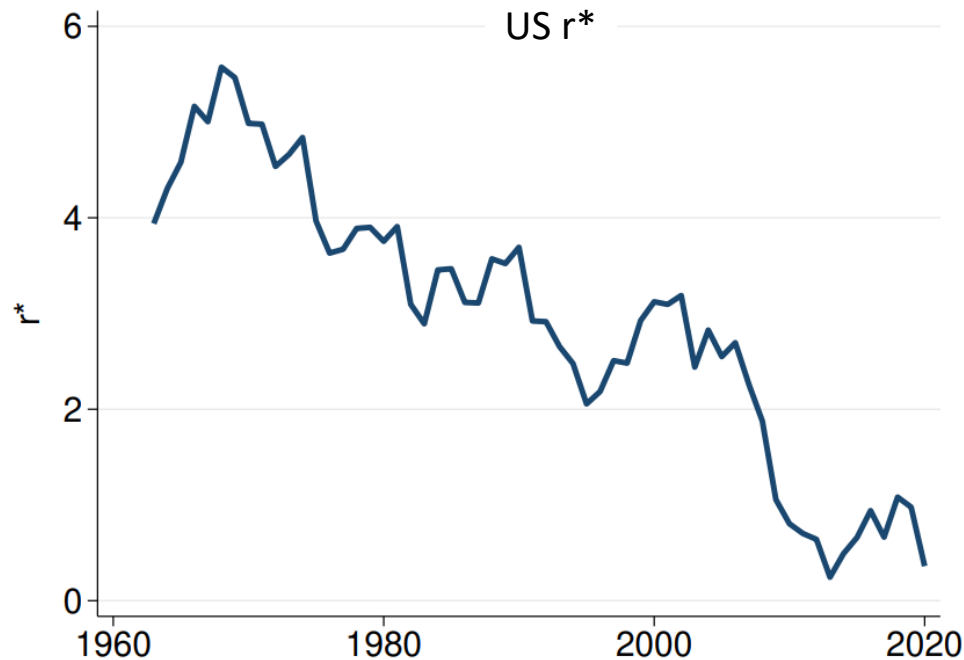
## 2. Can Inequality Lower $r^*$ , Even if Ageing Raises It?

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



# $r^*$ Falls With Rising US, But Falling Global Inequality?

Laubach-Williams Estimate of  $r^*$  falls sharply in the 2000s



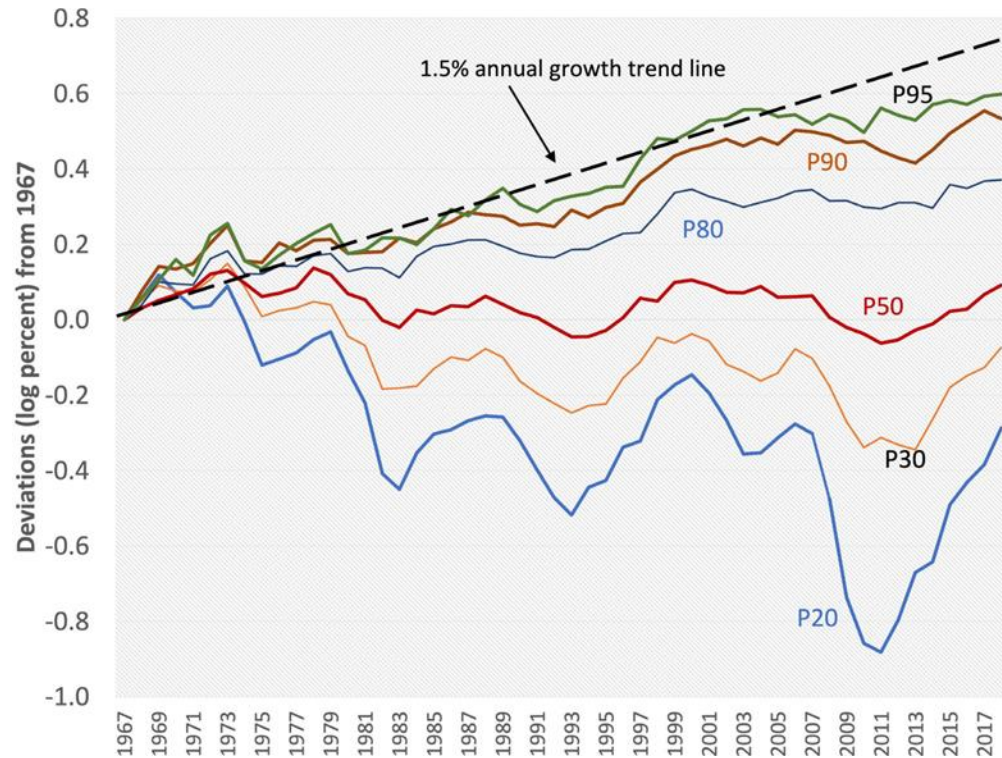
The surprisingly Swift Decline in US Manufacturing Employment



# 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

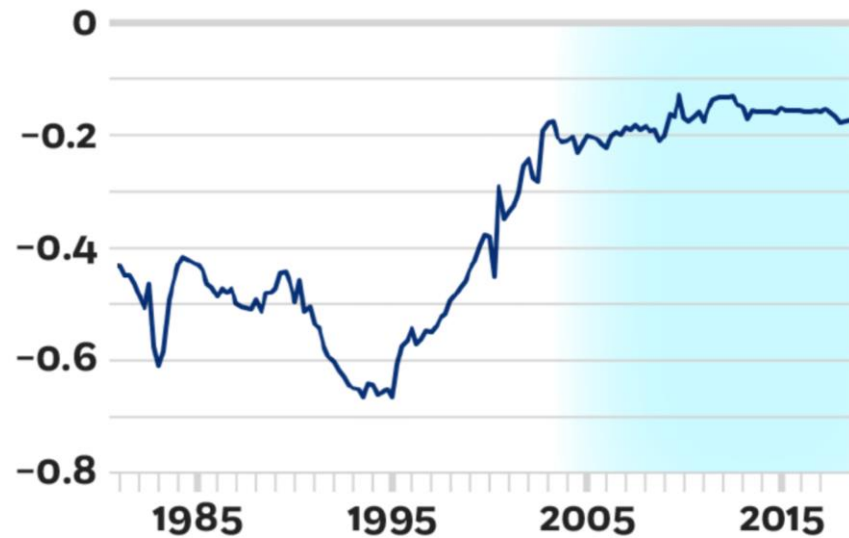
Source National Sources

# The Current Inflation Surge

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

## Phillips curve's slope

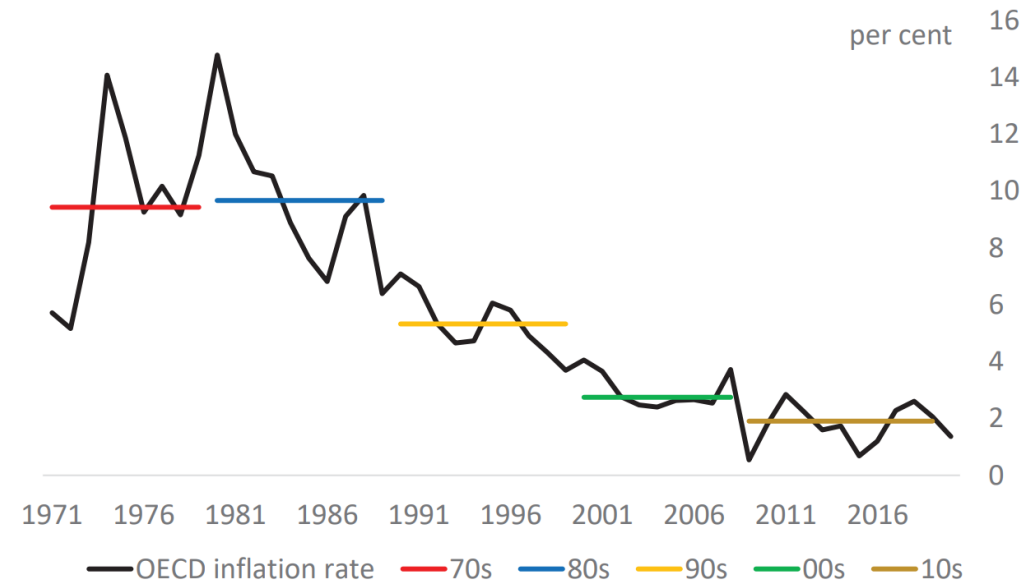
*Closer to zero = weaker connection between US unemployment rate and previous 20 years of price inflation*



Hooper et al., 2019

## China Disinflated the World, and Raised Growth Too

Chart 2: Global Inflation



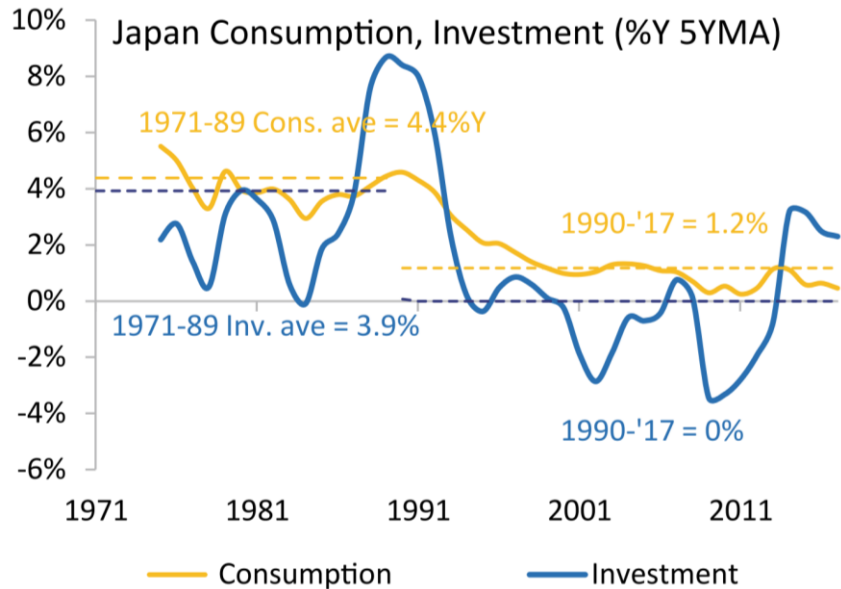


# China's Global Disinflationary Impulse Has Passed

## China: Japan-esque labour constraint

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

**Manufacturing, real estate** losing importance



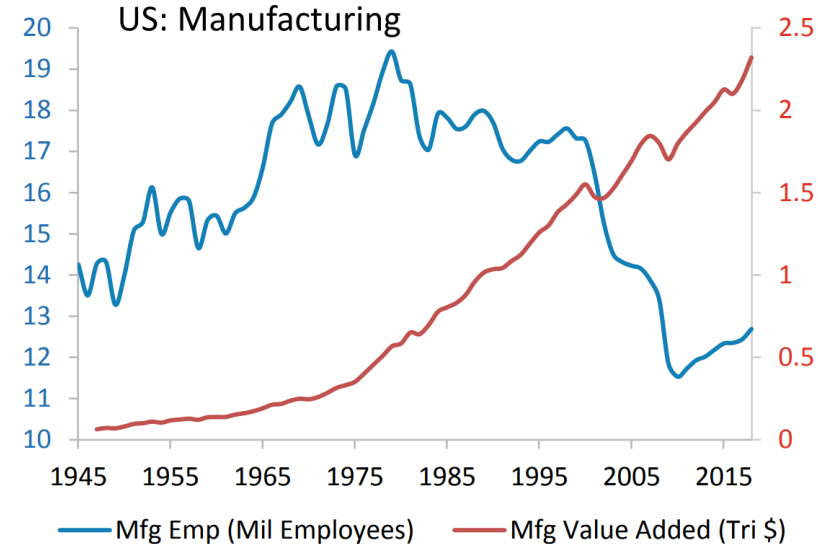
Source: China Ministry of Commerce

## Geopolitical Reshoring of Mfg inflationary?

**US/AE:** capital/labour rises = disinflationary

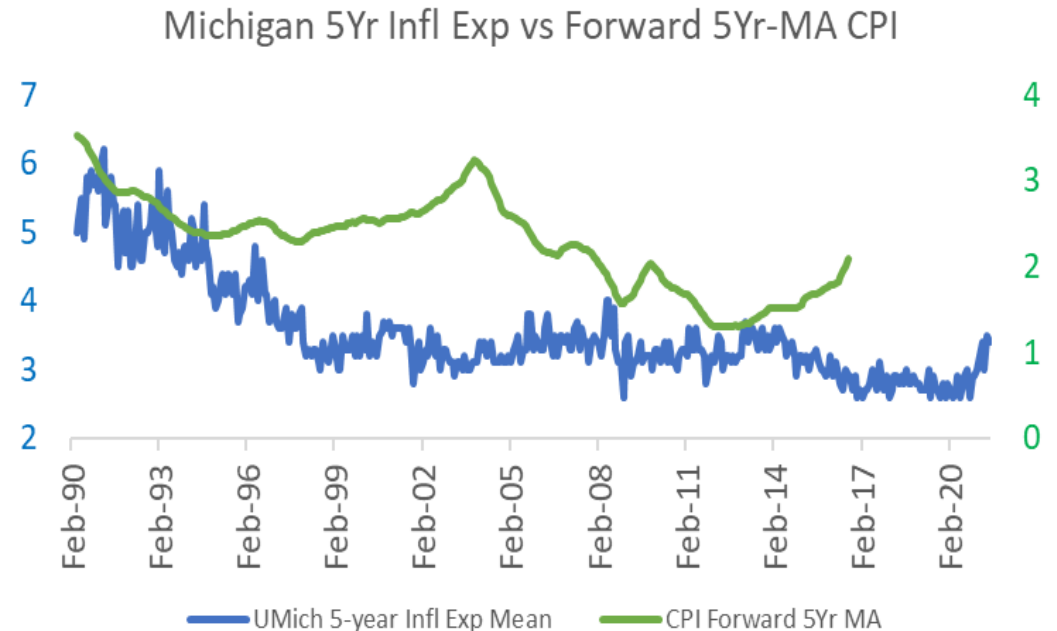
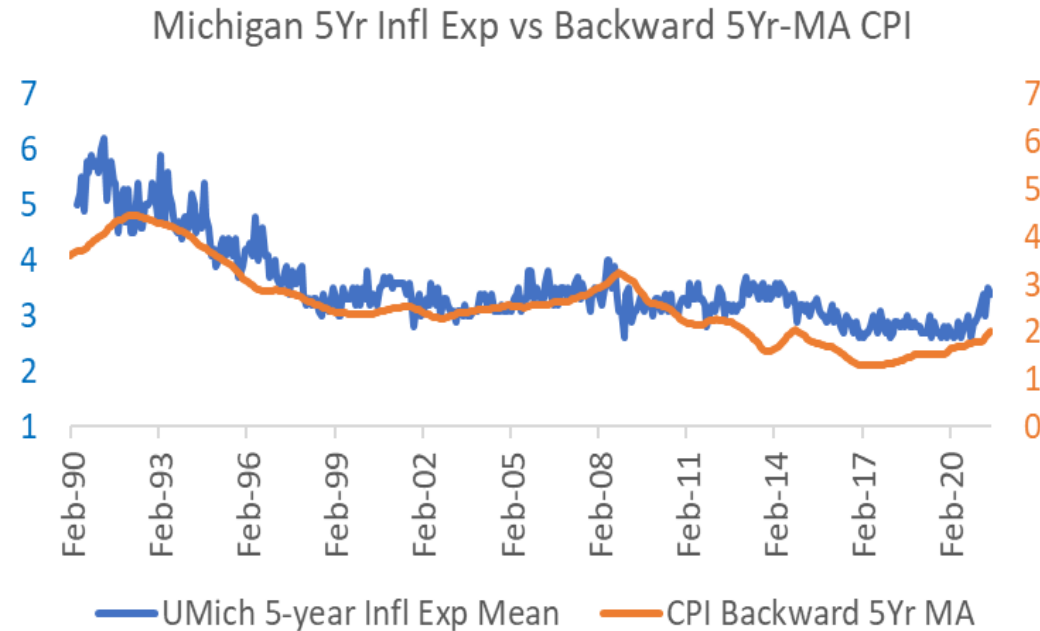
**US Inc.:** globally sub-optimal cost of production

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



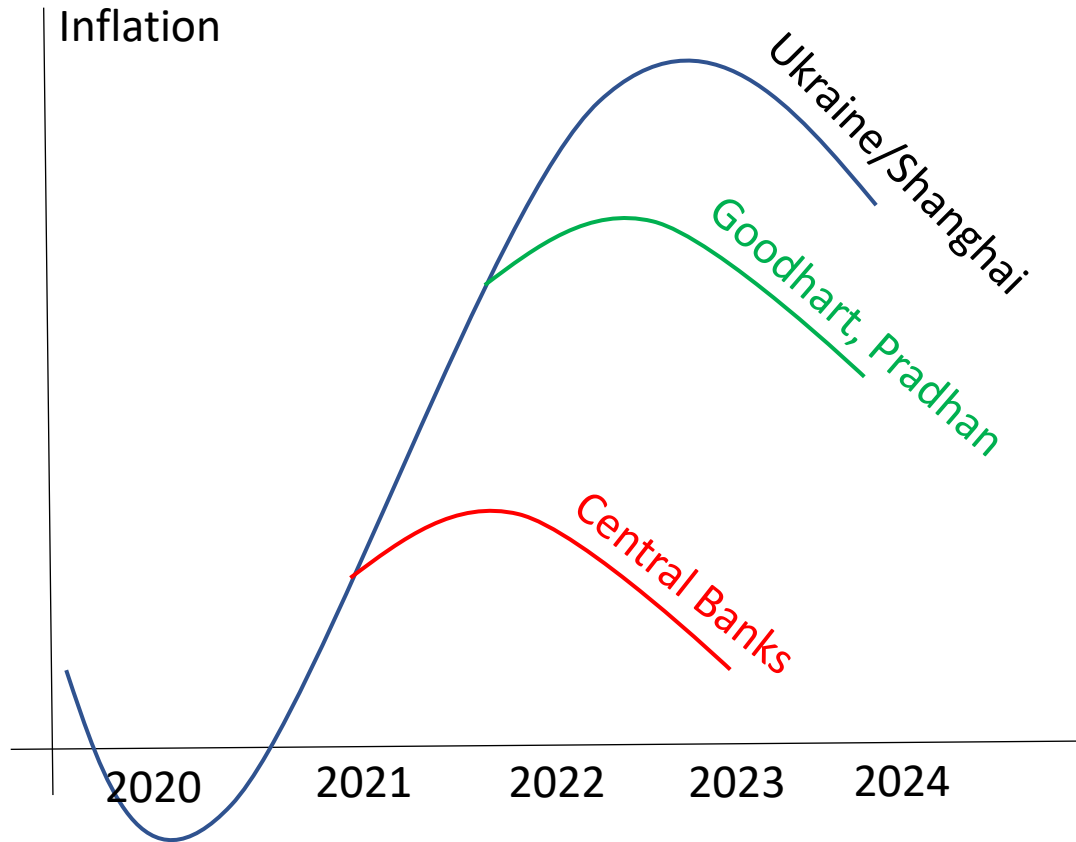
Source: BEA, Pierce and Schott (2016), "The Surprisingly Swift Decline of US Manufacturing Employment"

# What About Inflation Expectations?



# The Current Inflation Surge

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## **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?

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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-Term Future

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The **ECB, BoE** are currently accepting arguments for slow and steady.

The **Fed** has recently turned more hawkish.

Some **EME** Central Banks have already been forced to respond more urgently.

**It will be a difficult exercise to return inflation to target without having to raise unemployment, perhaps significantly.** Concerns about the stability of employment and financial markets may restrain the speed with which interest rates are raised. This makes it quite likely that the result, at least for the time being, might be stagflation.

If stagflation, then following concerns:-

- Central Bank Independence
  - Fragmentation in EU
  - Effects on Politics more broadly.
-

# The Search for 'Neutral'

# The Search for 'Neutral'

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**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.

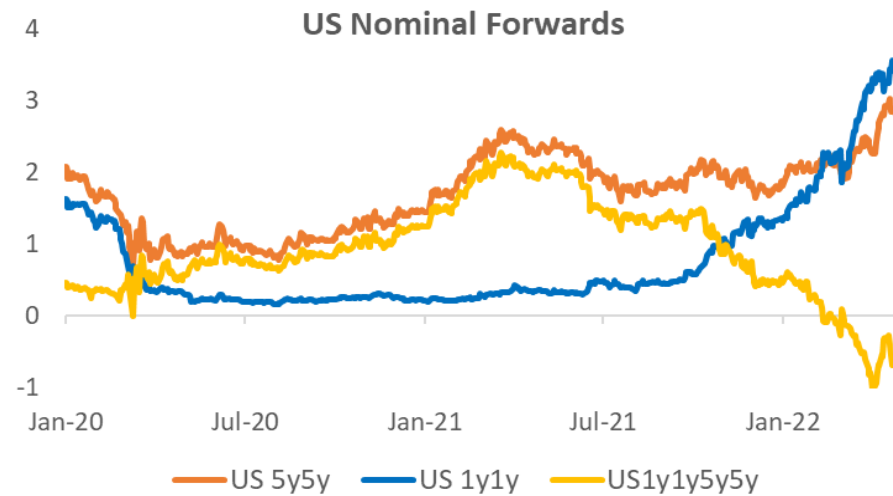
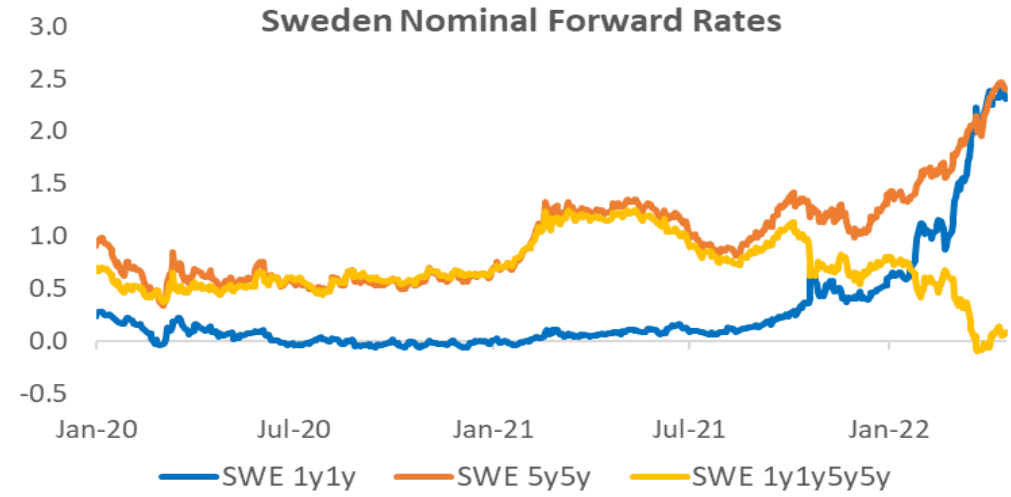
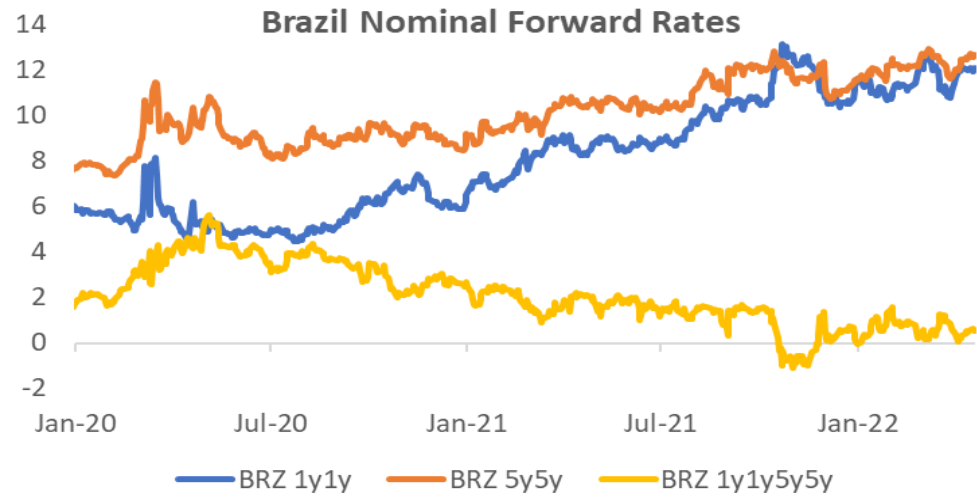
Assuming that these have already been hit would be premature. It would amount to assuming a success which has yet to be achieved and justified.

Without a peak in inflation (hard to say), 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.**

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# Terminal (1y1y) *and* Neutral (5y5y) 'Estimates' Have Risen





# Conundrum 2.0? Why Were Nominal Yields Below Breakevens?

**Do inflation-indexed/real yields reinforce 'neutral' if central banks are seen to be 'behind'?**

**Residual?** If nominal rates are 'fixed', then rising breakevens push real yield lower

**Vigilante?** If real policy rates seem too low, real rates rise despite rising breakevens

