

Webinar:
**COVID-19, debt monetization
and lessons from war financing**

WITH HAROLD JAMES
PRINCETON UNIVERSITY

Friday, April 24, 12:30 PM ET
Pre-Registration Required



PRINCETON ECONOMICS



Intro: MARKUS BRUNNERMEIER

Twitter: @MarkusEconomist

Website: bcf.Princeton.edu

Markus' intro

■ Previous webinars

- Hyun Shin: international finance & Capital Flows
- Harold James: debt monetization and war financing
- Joseph Stiglitz:

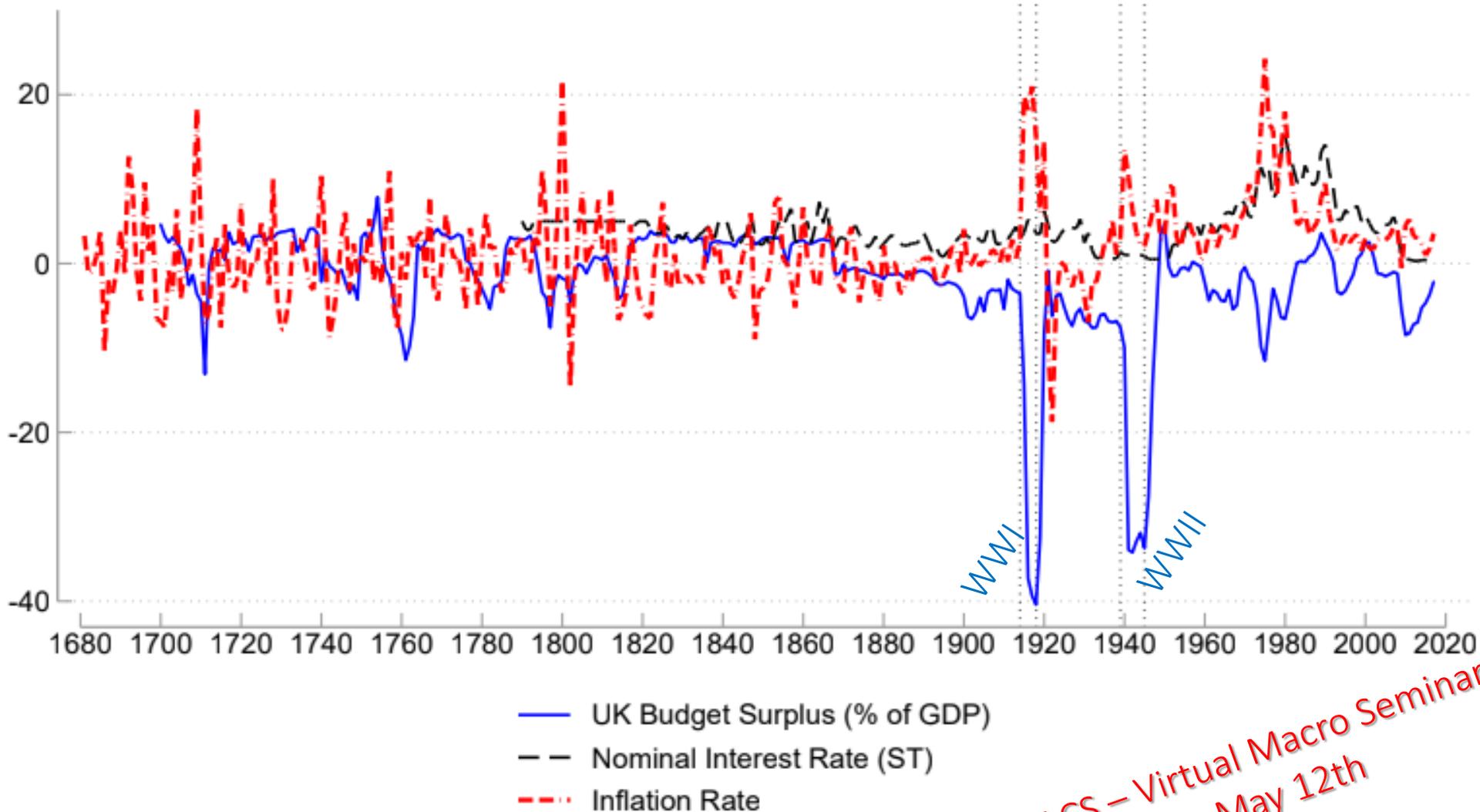
■ Speakers



War vs. pandemic financing

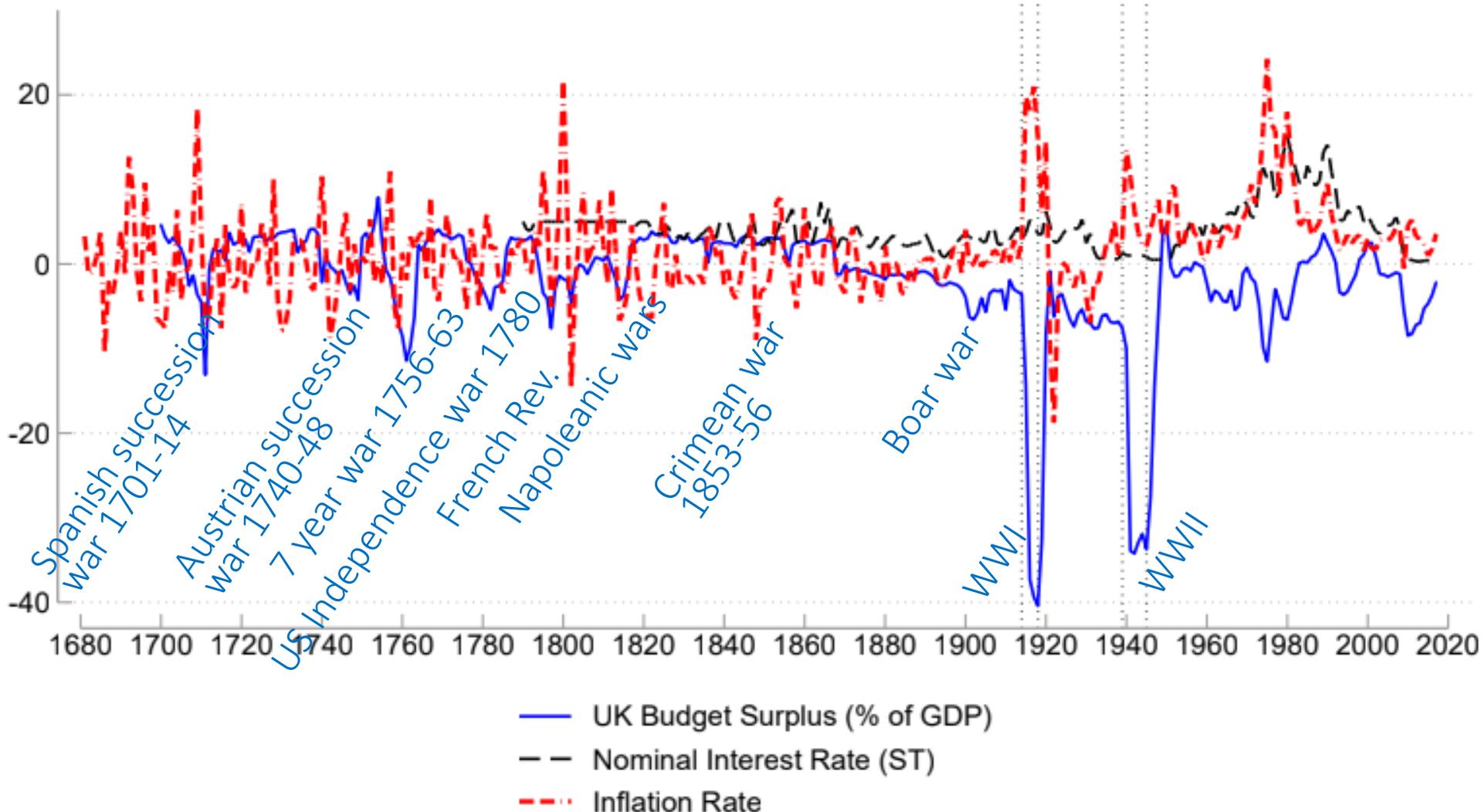
- War vs. COVID: Commonalities and Differences
 - Enemy vs. common enemy
 - National thinking vs. group-feeling (?)
 - Suicide rate decline during wars (Deaton's webinar)
 - Young vs. elderly
 - Government control (incl. price controls)
 - Large relative price shifts
 - Involuntary savings
 - Government expenditure hike + tax revenue collapse
 - Issue bonds in hope of reparation payments vs. no hope
 - Monetary financing (?)

UK: Budget, interest, inflation



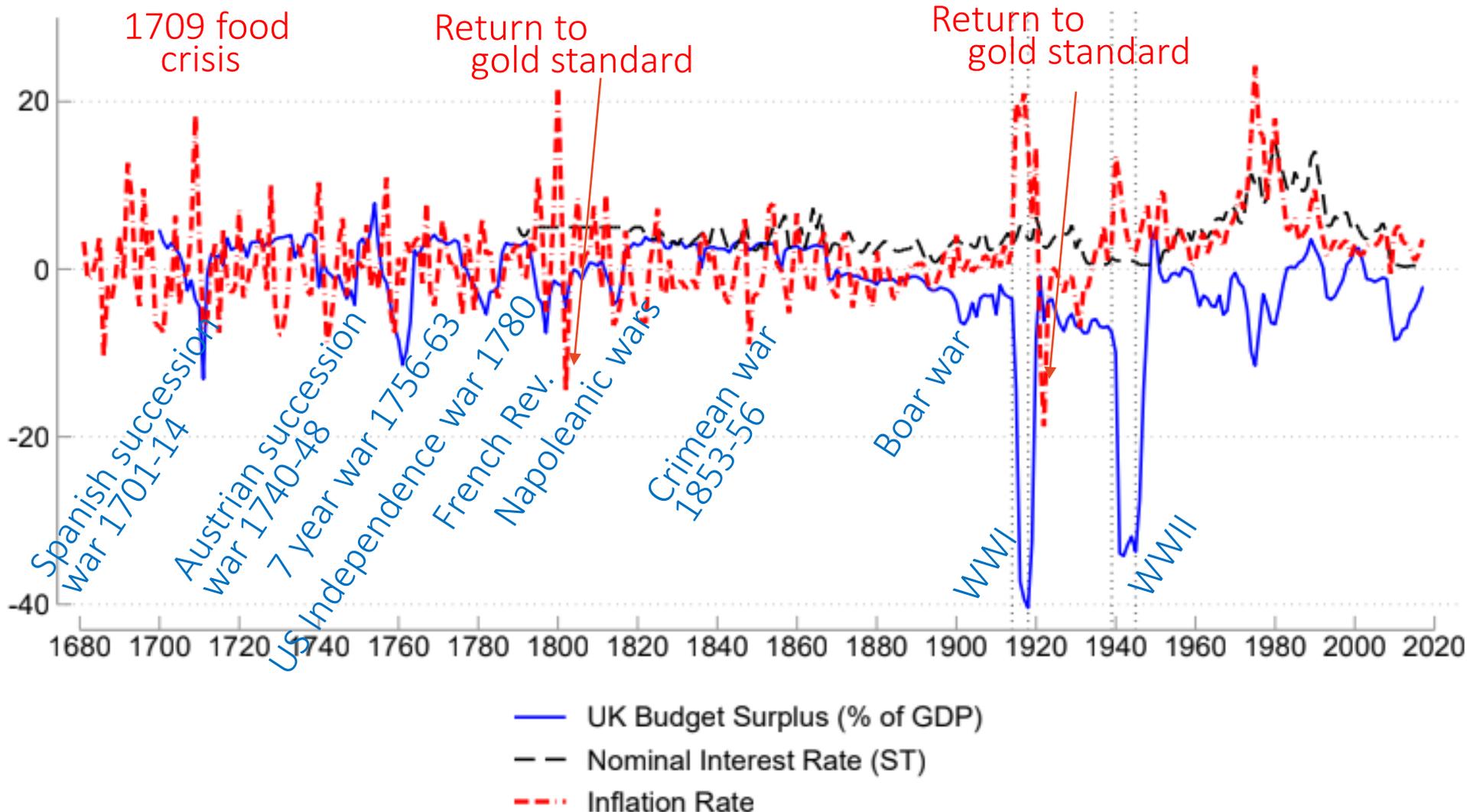
VMACS – Virtual Macro Seminar
on May 12th

UK: Budget, interest, inflation

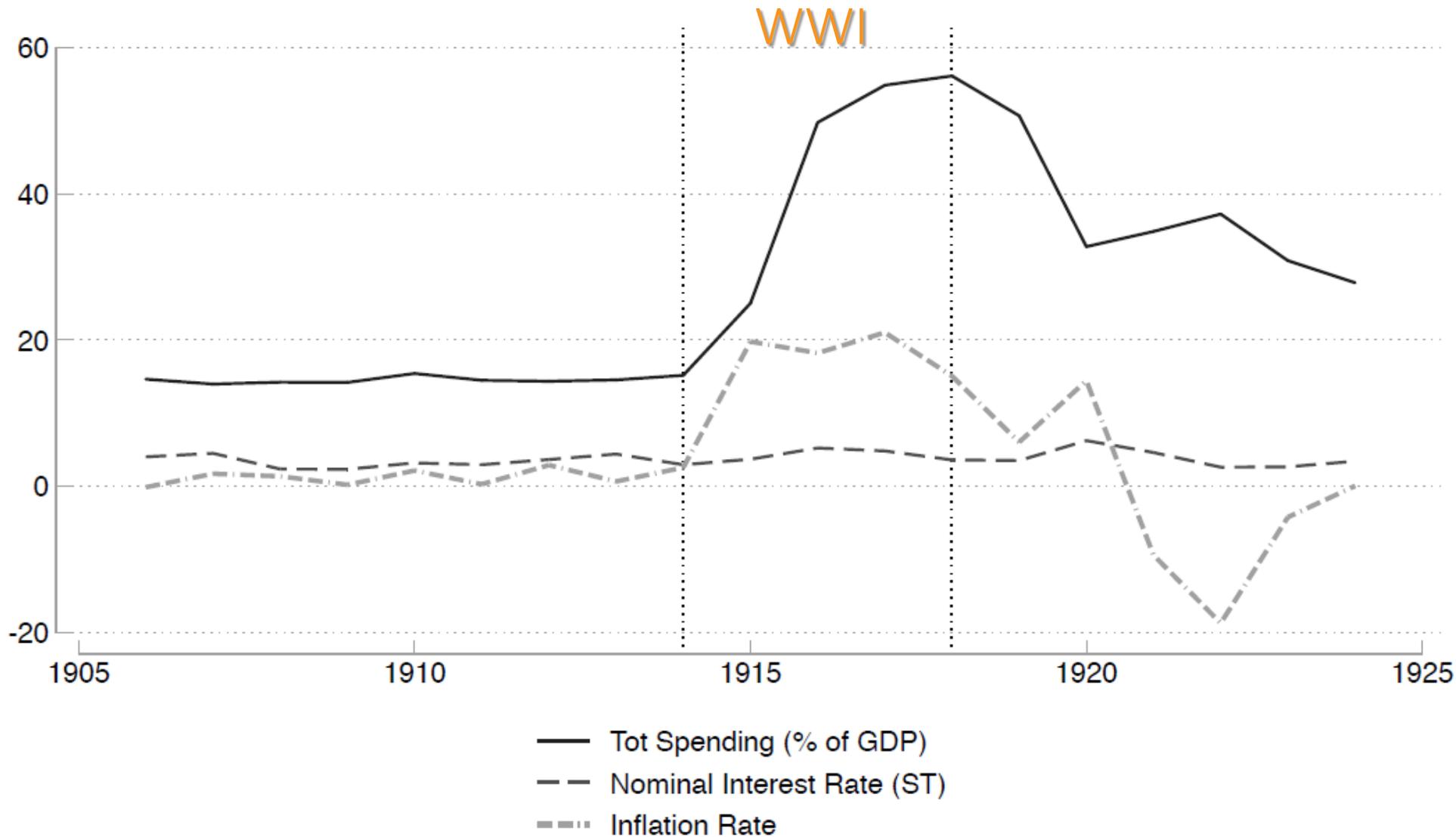


UK: Budget, interest, inflation

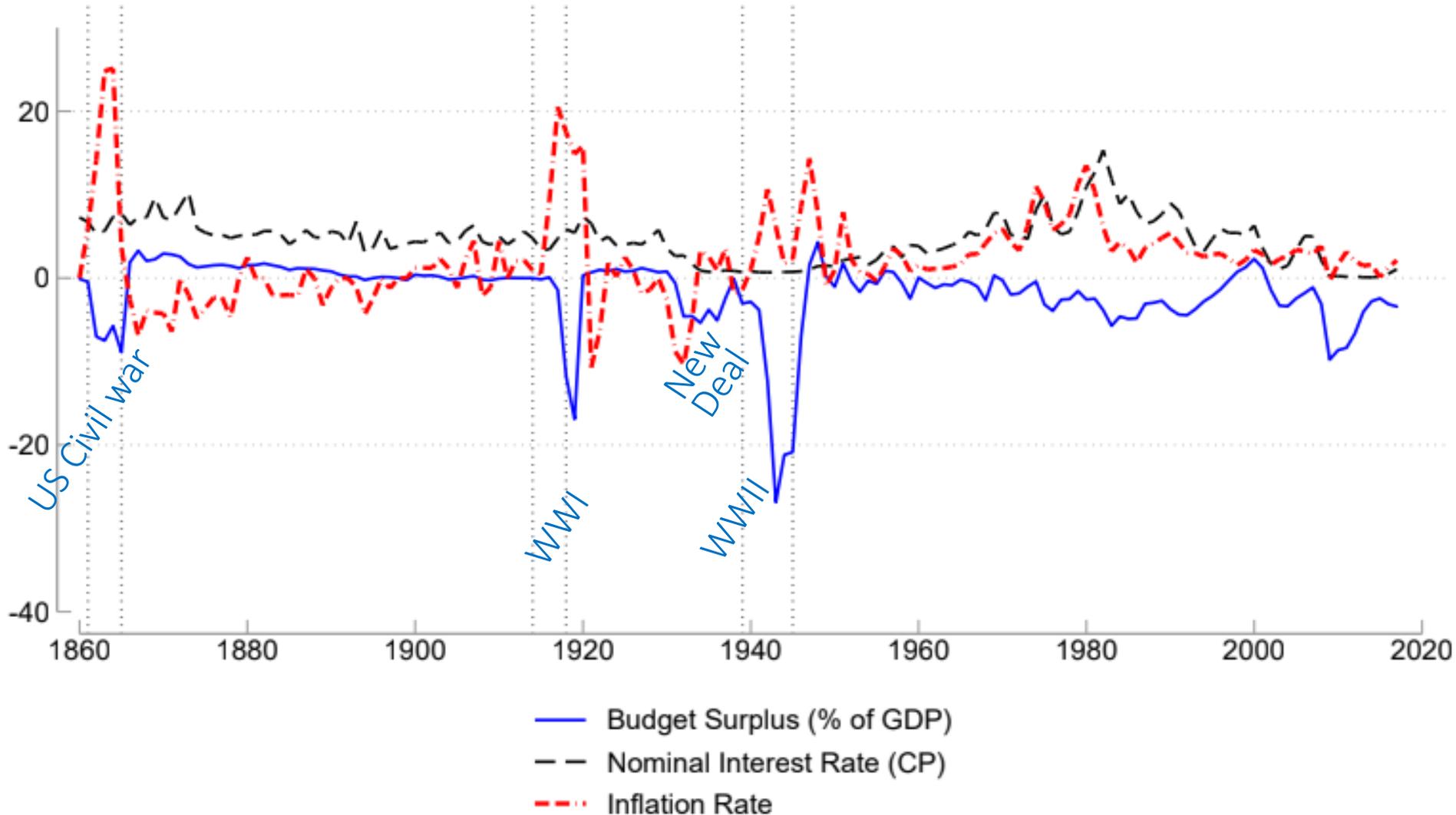
High inflation volatility due to crop failures + flexible wages/prices



UK: spending, interest, inflation



US: Budget, interest, inflation



Lockdown = stop clock

- **Stop clock** = total standstill of all debt/rent/wages/...
- Not possible
 - Essential sector food, ...
 - Less essential sector
- Shut down **part** of economy
 - Supported by other part – with debt monetization?



Inflation/Deflation pressures

Inflation

- Output loss, productivity loss (permanent)
- Issuance of money + government bonds
- Involuntary (dis)savings (temporary)
- More idiosyncratic risk
 - Esp. if crisis drags on
- Wealth inequality
- Physical capital misallocation
- Future government policy

Depends on relative
speed of adjustment



“The I theory of money”

- Banks’ reduce risk bearing capacity
 - Can’t diversify idiosyncratic risk away \Rightarrow money demand \uparrow



Inflation expectations

- TIPS: 10 year break-even rate



Poll 01

1. Inflation expectations in US (average over next 5 years)

- a. < -1%
- b. -1% to 0 %
- c. 0% to 1%
- d. 1% to 2%
- e. 2% to 3%
- f. 3% to 5%
- g. 5% to 10%
- h. >10%

2. Your location

- a. US/Mexico
- b. Latin America
- c. Europe
- d. Asia
- e. Africa
- f. Australia

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Wartime and after

Harold James

Bendheim Center Webinar, April 24, 2020, Princeton

Learning from past disasters

- Pandemics:
 - Black Death 1347-53: 75 m. dead
 - 17th century recurrences;
 - “Spanish” influenza 1918-1920 50 m. dead worldwide.
- Great Depression or Global Financial Crisis
- Wars of twentieth century:
 - 1914-18: 17 m. dead
 - 1939-45: 70 m. dead

Wartime

- Xi Jinping, February 6, 2020: “people’s war”
- Boris Johnson, March 17, 2019: “We must act like any wartime government and do whatever it takes to support our economy.”
- Rishi Sunak: “We have never faced an economic fight like this one.”
- Donald Trump, March 19, 2020: “our big war”: “We continue our relentless effort to defeat the Chinese virus.”
- Kenneth Rogoff, March 18, 2020: “The whole point of having a sound government balance sheet is to be able to go all out in situations like this, which is tantamount to a war.”
- Peter Navarro, March 28, 2020: “We are engaged in the most significant industrial mobilization since World War Two. We have a wartime President fighting an invisible enemy.”
- Laura Lane (UPS), March 29, 2020, at White House: “the way we’re going to win this war is with great logistics”

War: Short-term effects

- Destruction of conventional jobs
- High level of unemployment / unproductive employment
- BUT: we measure that differently (GDP doesn't look as if it shrinks during major wars because of the way military expenditure is accounted for)

The Immediate Response:

(1) Mobilization

- a colossal and largely unanticipated mobilization of material resources for responding to the immediate situation and ensuring victory, that requires central direction of resources: development of PPE, disinfection material, diagnostic testing (central to eliminating contagion), testing for antibodies, antiviral drugs
- equivalent to industrial mobilization: US discussion and then use of 1950 Defense Production Act:
Priorities and Allocations;
Expansion of Productive Capacity and Supply;
General Provisions (industrial organization)
- Shutting of large parts of civilian economy
- High levels of involuntary saving

Medical export restrictions

Medical exports restricted under the Defense Production Act



(2) Morale and supply

- Attention to morale and provisioning:
there was an acute awareness in the great 20th conflicts , especially in WW2, that civilian morale was a vital part of the war effort, that inadequate supplies of food (or perceived injustice: the rich having stupendous meals) would be destructive. Rationing was designed not just to alleviate the first problem (inadequate supply) but also the second (perception of injustice)

(3) Mobilization of people

- “the front” of nurses, doctors, other hospital staff, but also those involved in supply chains and in the maintenance of public order

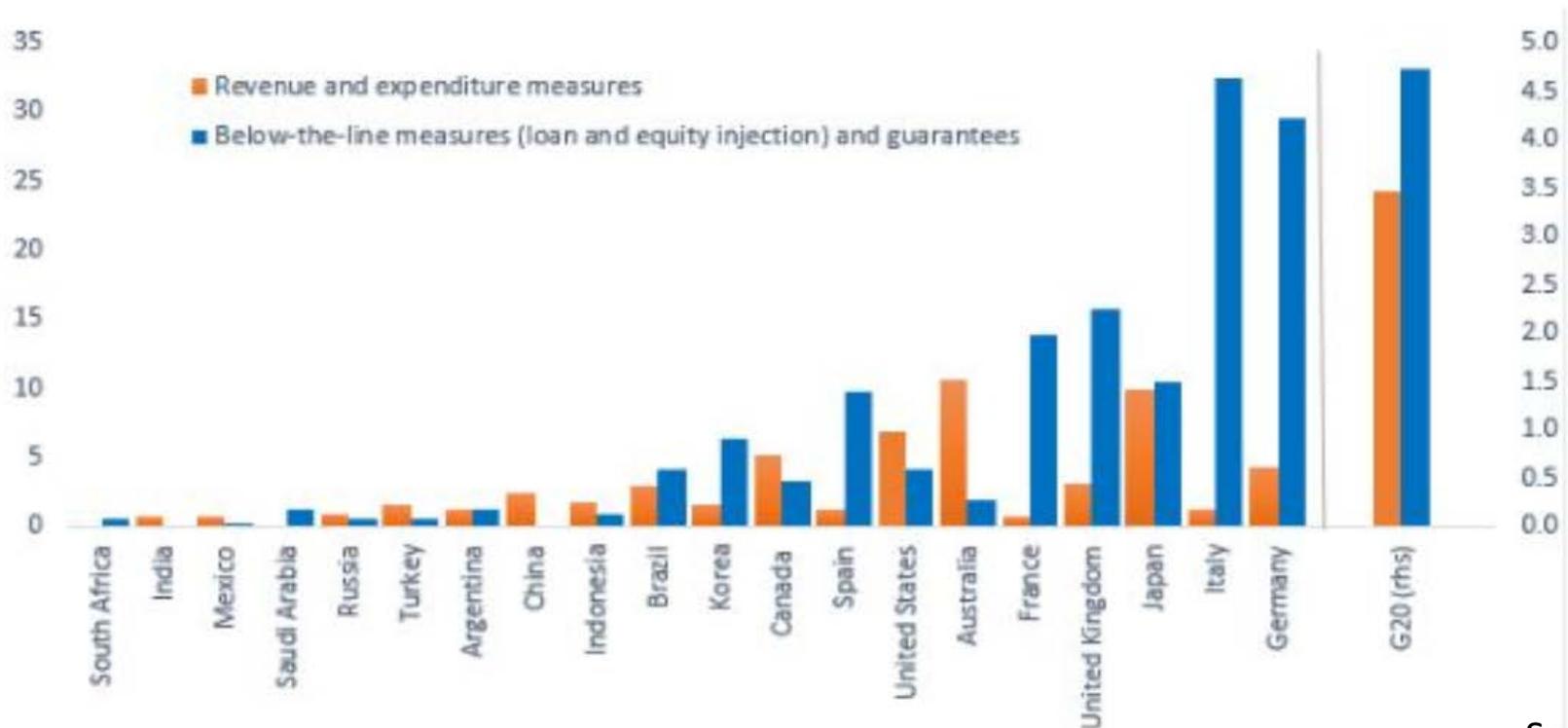
Public Order

Wuhan,
March 28, 2020



(4) Fiscal & monetary consequences

(Announced fiscal measures in G20 economies, % of GDP)



Source:
IMF, 2020

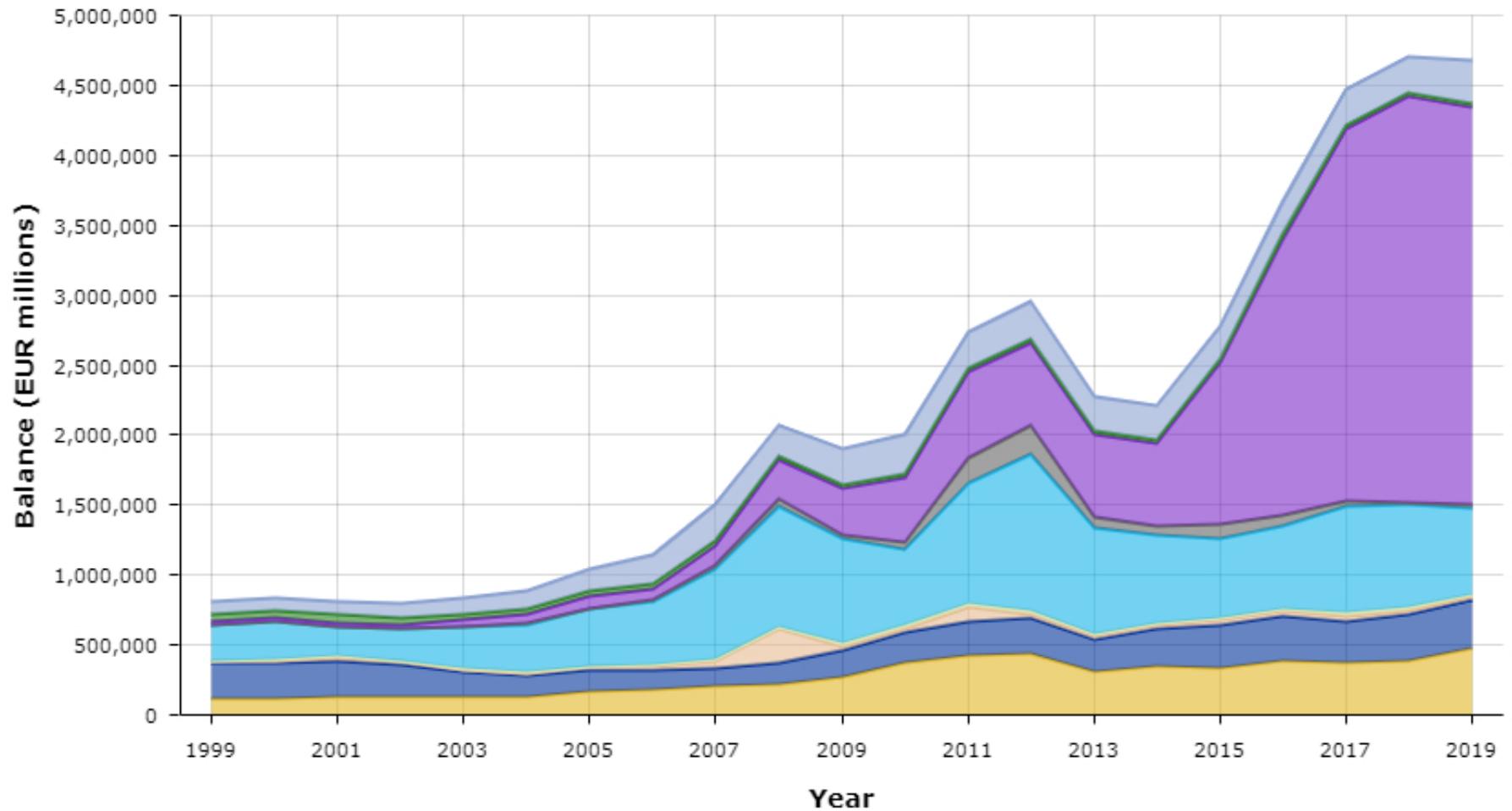
Sources: National authorities; and IMF staff estimates as of April 8, 2020.

Note: G20 = Group of twenty. G20 aggregates are calculated using PPP-adjusted GDP weights

Central bank financing

- Federal Reserve: additional \$2tn-\$3tn (at end of 2019 \$4.2tn)
- ECB: €750 bn Pandemic Emergency Purchase Programme (PEPP); promise to buy €120 bn additional bonds (at end of 2019 €4.5 tr)

ECB balance sheet



Source: ECB

Mario Draghi

Financial Times, March 25, 2020

- Much higher public debt levels will become a permanent feature of our economies and will be accompanied by private debt cancellation.
- During the first world war, in Italy and Germany between 6 and 15 per cent of war spending in real terms was financed from taxes. In Austria-Hungary, Russia and France, none of the continuing costs of the war were paid out of taxes.



- Roesler 1967:
 - Germany: 13 percent of total expenditure from ordinary budget, financed by taxes and other regular income;

- Balderston 1989:
 - 16.7 percent (compare UK 26.2 percent)

Deficits as share of expenditures

	1914	1918
United Kingdom	61.3	69.2
France	54.8	80.0
Germany	73.5	93.8
Italy	6.1	70.2
United States	0.1	71.2

Source: Eichengreen 1992

Inflation: Wholesale prices

1913=100

	1918	1920
United States	195	173
United Kingdom	246	264
France	335	444
Germany	260	1440
Italy	296	596
Sweden	335	267

Source: Moggridge, 1989

Dramatic changes in *relative prices*

- Deflationary shocks (fall in demand for civilian goods)
- Inflationary shocks (scarcities of food, cigarettes, basic provisions, driven in part by hoarding)

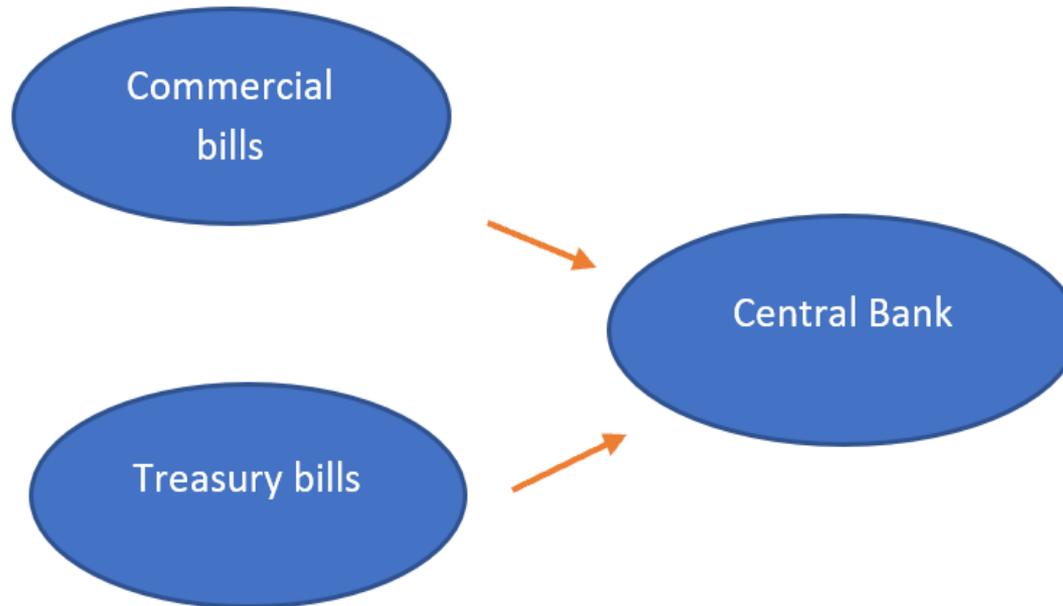
Cost of living calculations highly politicized (discussion of automatic adjustments)

2 contrasting models

- UK/US vs Central Europe
- Wartime finance vs postwar management
- A discussion about how to “exit” an emergency

Enterprises (employees)

Banks

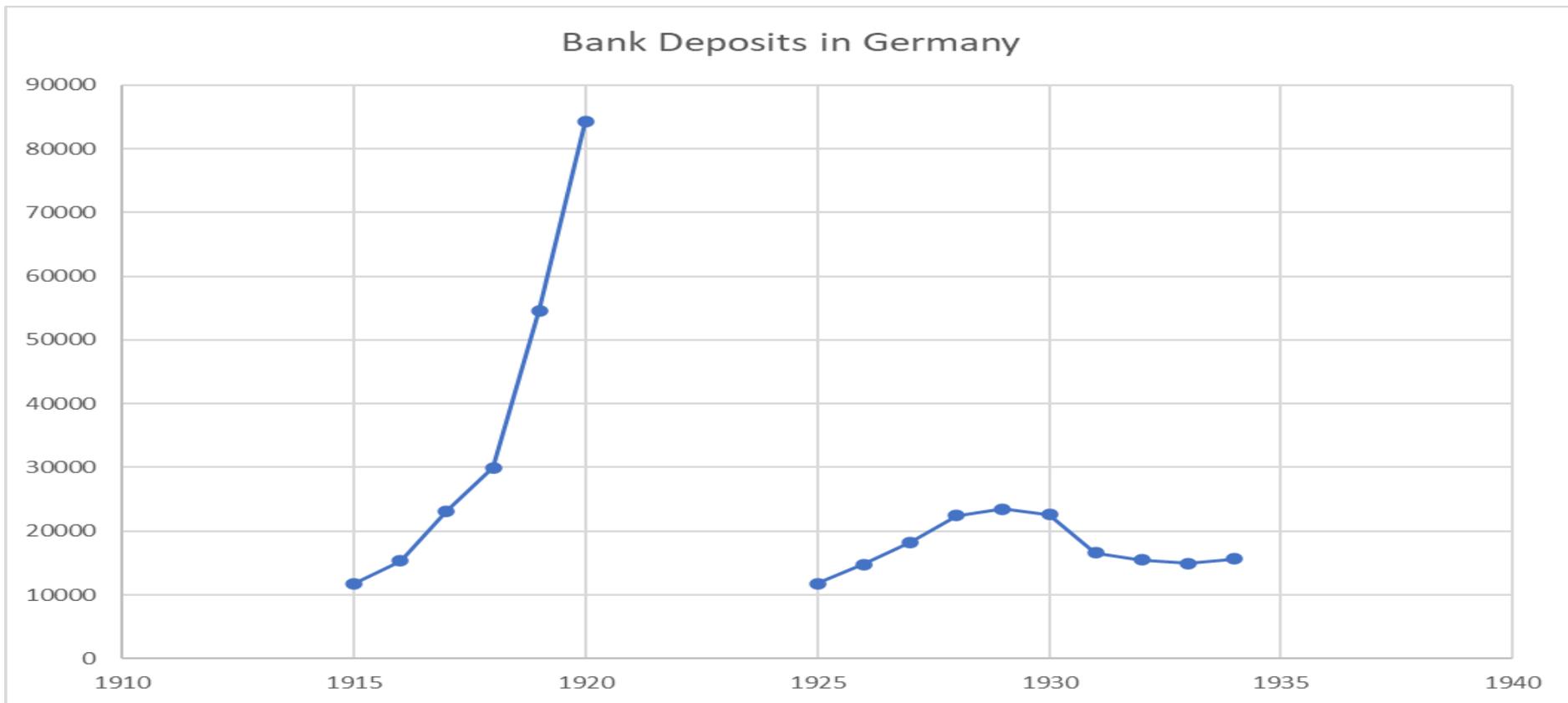


Banks

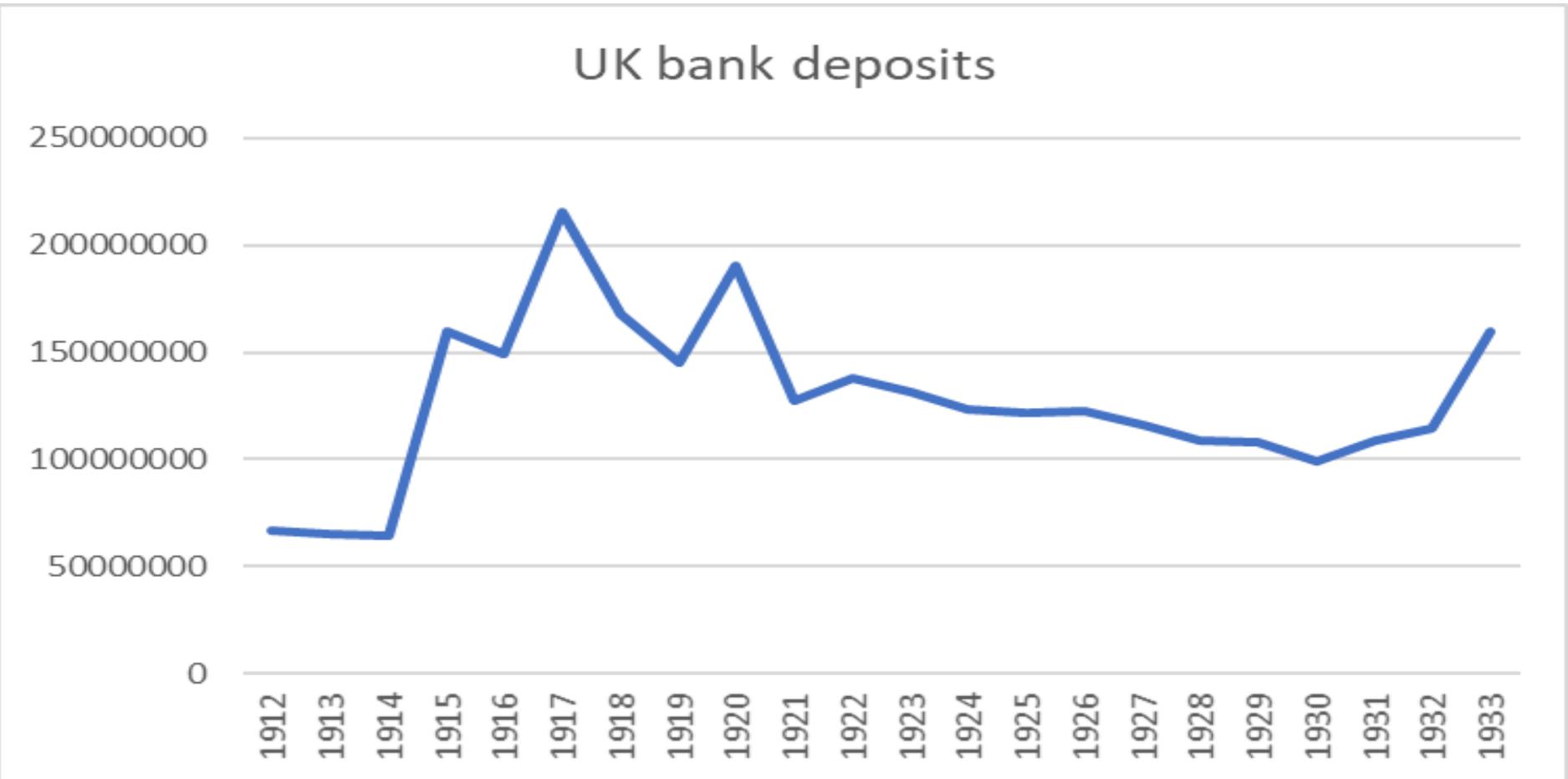
Treasury (soldiers)

German Bank Deposits

Explosion



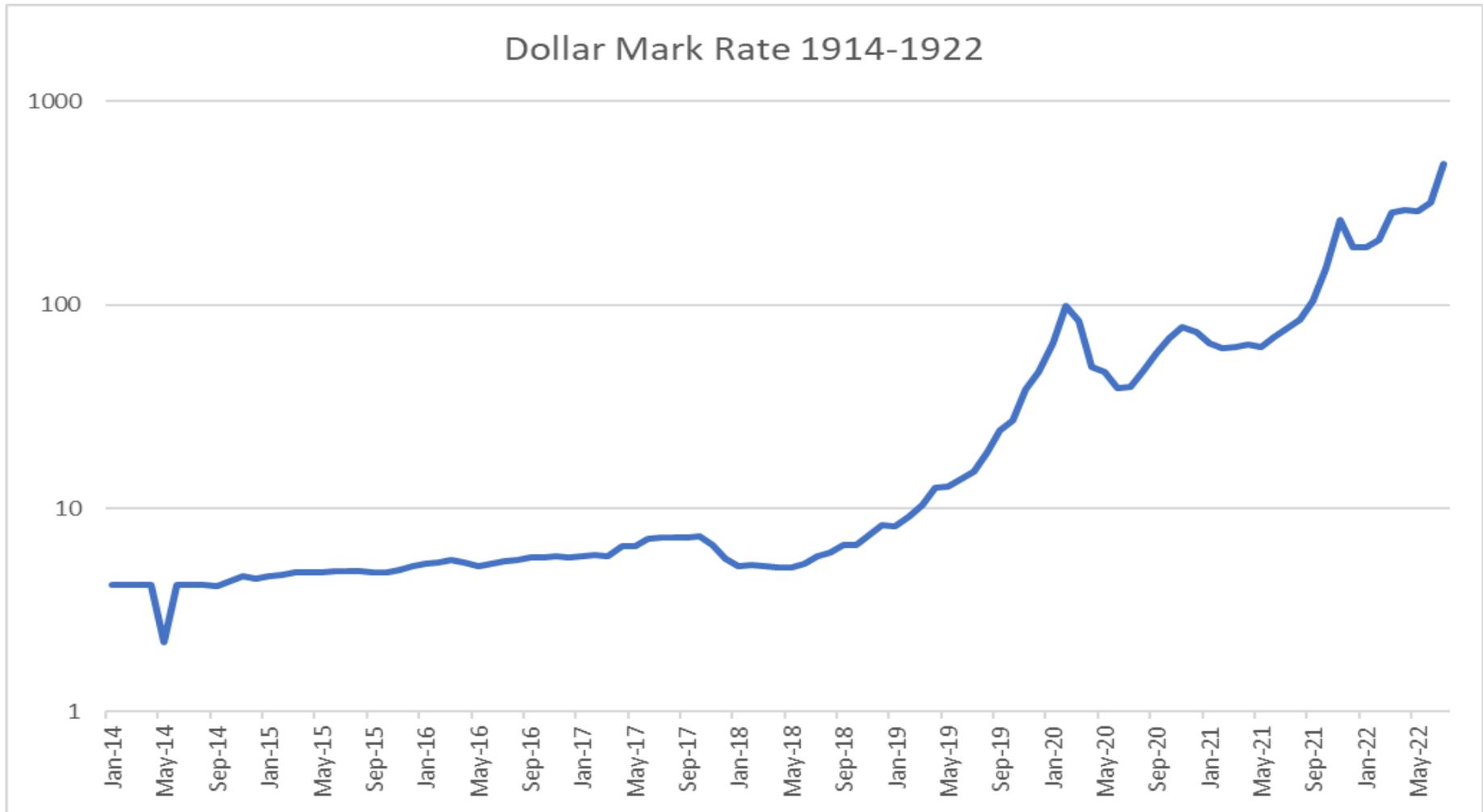
UK Bank Deposits



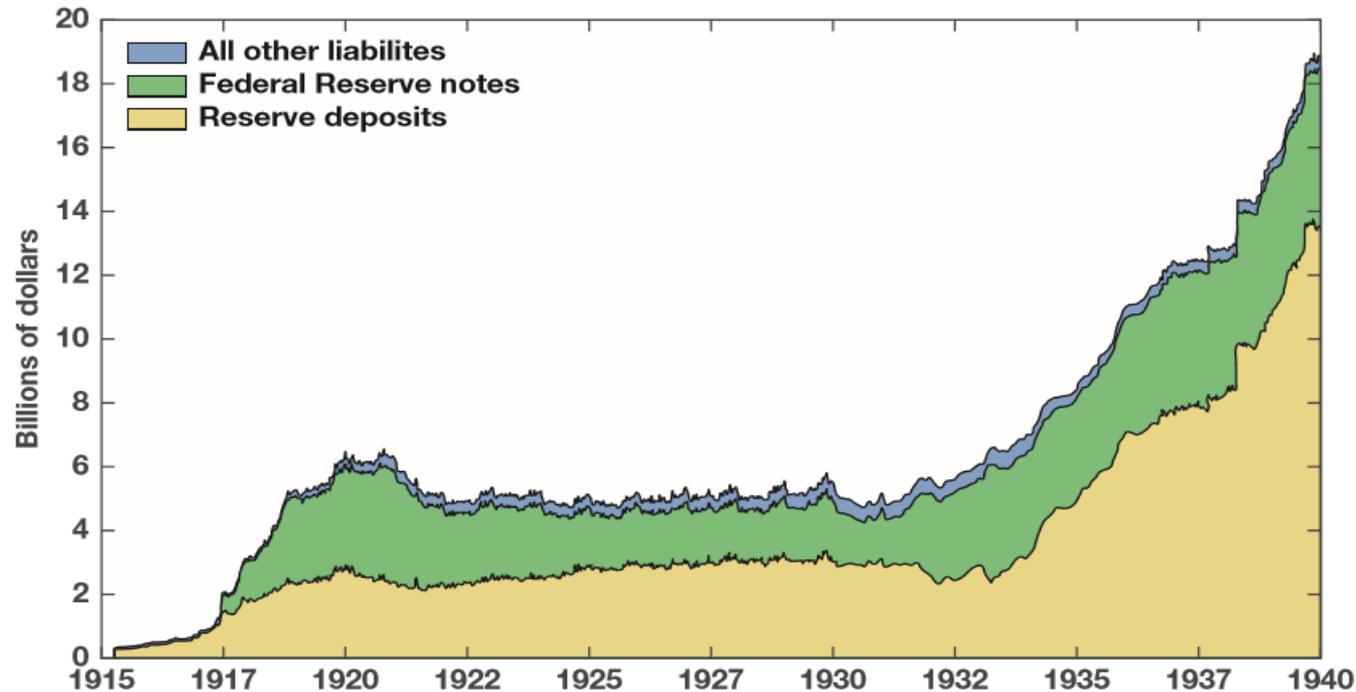
Postwar monetary & fiscal management

- Centrality of interest rate policy (management of government debt)
- Alternative strategies: high inflation; debt cuts / capital levies

German Inflation 1914-1923

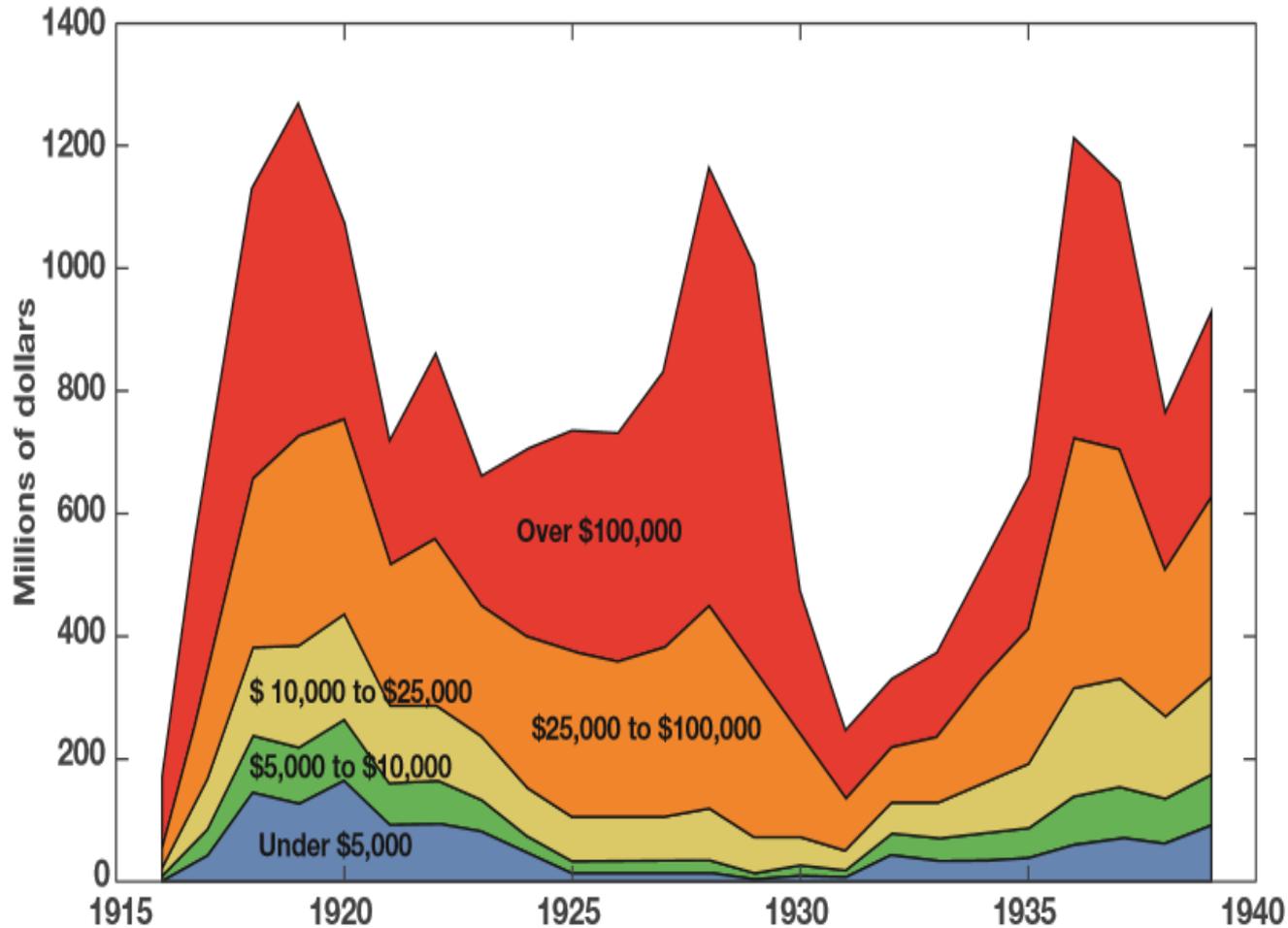


Federal Reserve Liability



Source: Board of Governors of the Federal Reserve System (1915–40).

Taxation (US)



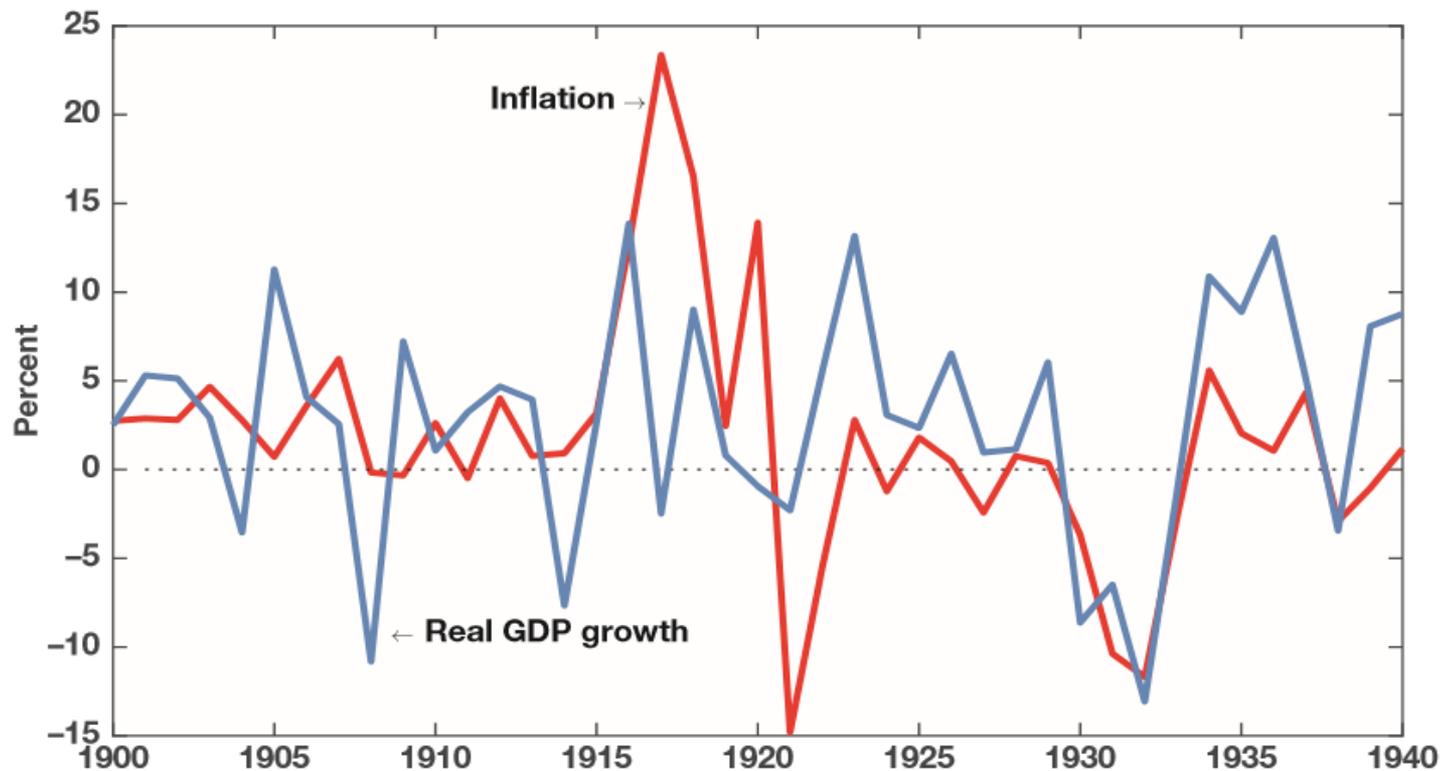
Source: US Internal Revenue Service (1920–40).

Source: Thomas Sargent in (ed.) *Era Dabla-Norris, Debt and Entanglements Between the Wars*, 2019

Real GDP Growth and Inflation

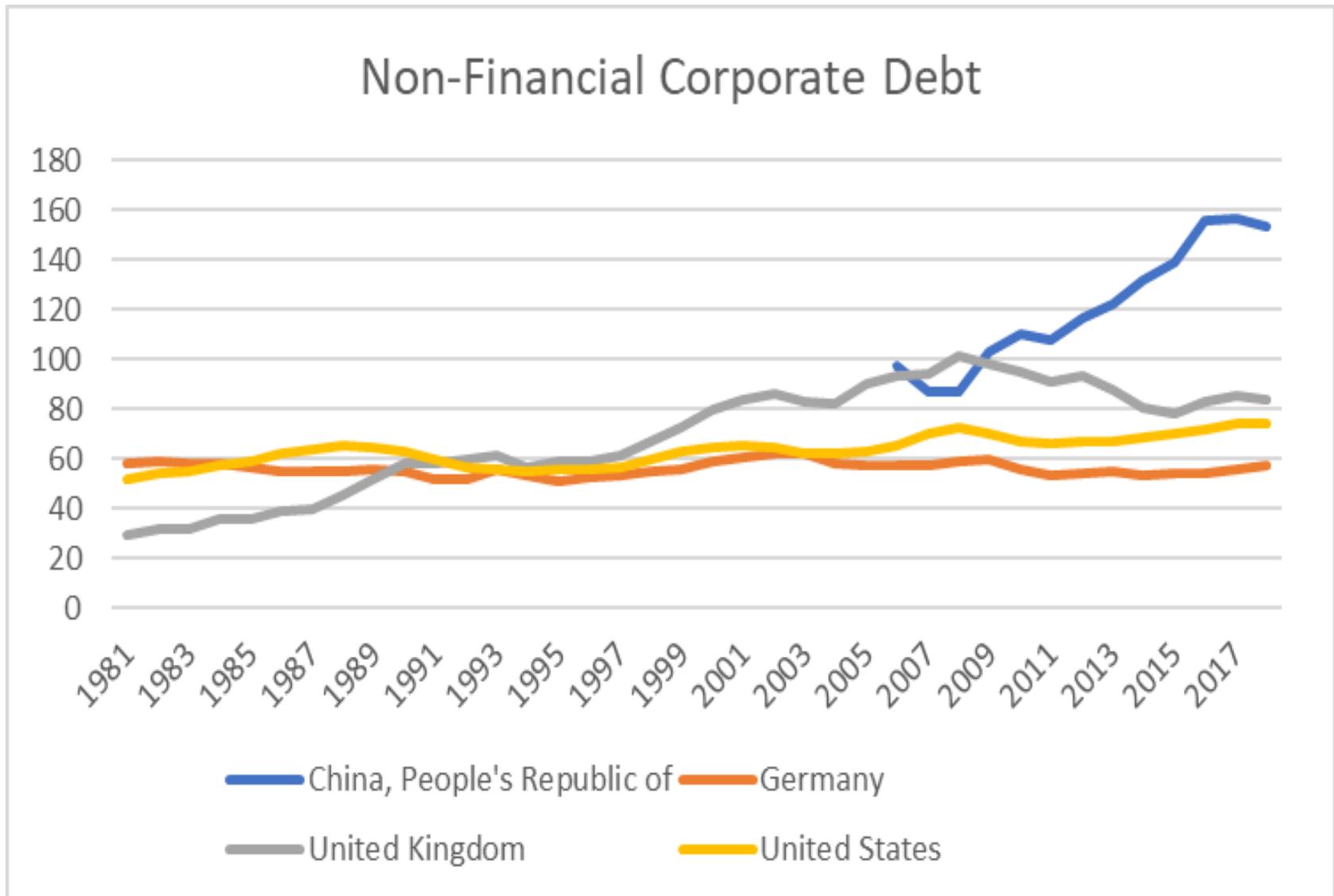


Figure 1.29. Real GDP Growth and Inflation Measured by the GDP Deflator



Source: <http://www.measuringworth.com>.

Non-Fin Corporate Debt



Even longer term perspectives BENDHEIM CENTER FOR FINANCE

Government fiscal sustainability and economic growth:
numerator and denominator

Technical developments: stimulus of wartime (eg penicillin),
changes in working practices etc.

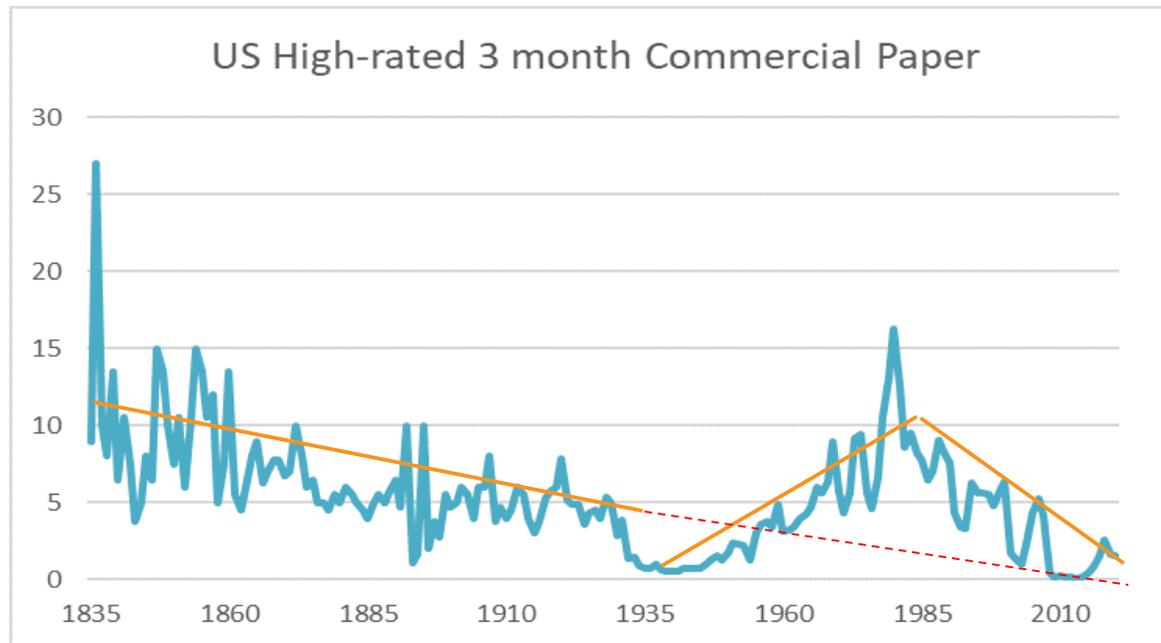
Long term evolution of interest



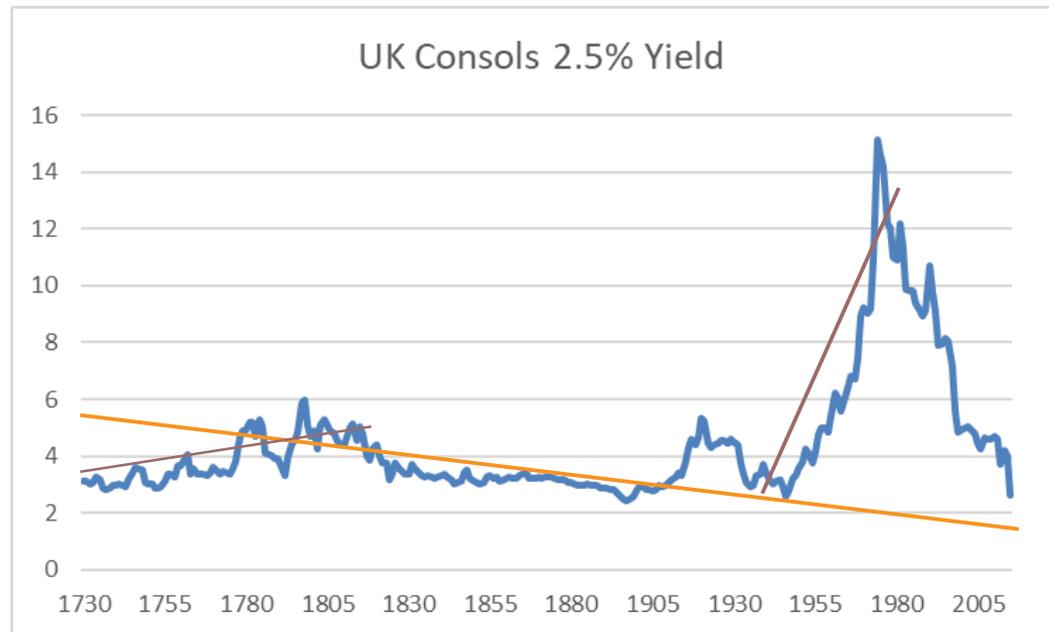
- Paul Schmelzing:

Eight centuries of global real interest rates, $R-G$, and the 'suprasecular' decline, 1311-2018 (2019)

Long term evolution of interest

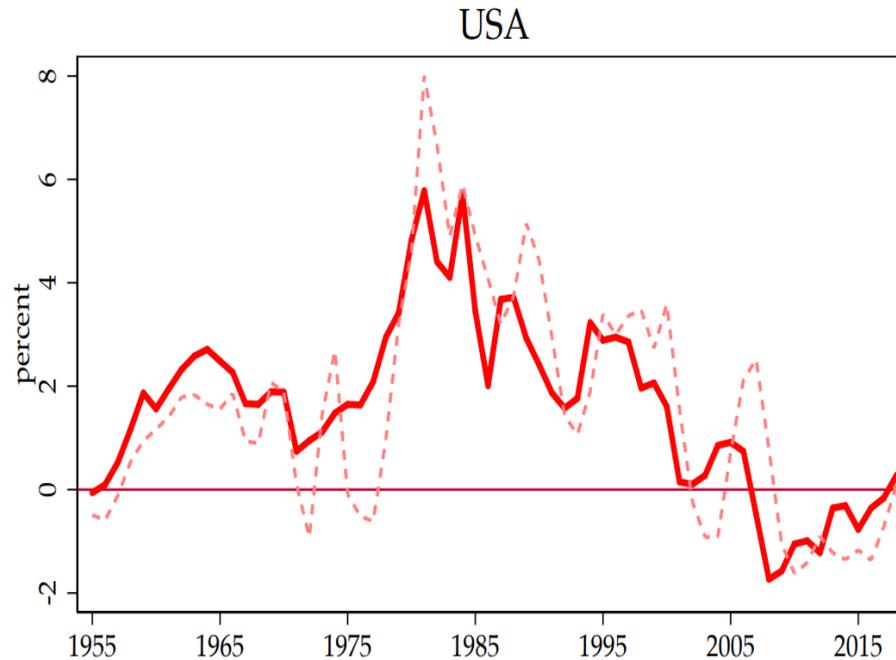


Long term evolution of interest



Long term evolution of interest

Estimates of r^* and η_t^B versus actual real short rate



From: Òscar Jordà and Alan M. Taylor, Riders on the Storm, NBER Working Paper 26262

Exceptionality of 1945-1979



- Large-scale debt reductions / cancellations
- Currencies reorganized (Bretton Woods): was that a sort of creation of Glosbies, explaining why nominal/real rates in US/UK break out of historical trend?