Public Debt in Historical Perspective

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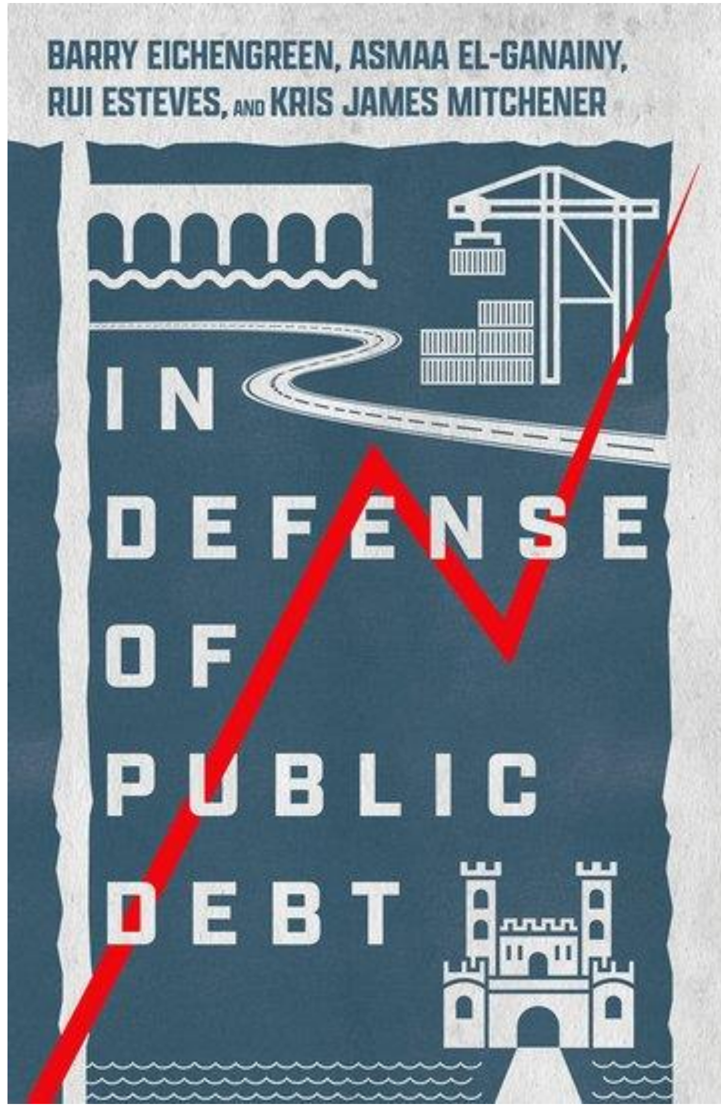

BARRY EICHENGREEN, ASMAA EL-GANAINY,
RUI ESTEVES, AND KRIS JAMES MITCHENER
IN
DEFENSE
OF
PUBLIC
DEBT

Recent years have seen a sea-change in views of public debt

- Those of my age will recall the 1980s and 1990s, when there was widespread concern about government profligacy and fears that public debt was on a dangerously unsustainable path.
  - These worries found their way into the Maastricht Treaty and the 1990 US Budget Enforcement Act.
- These measures were indicative of widespread worry that government spending and debt were dangerously out of control.

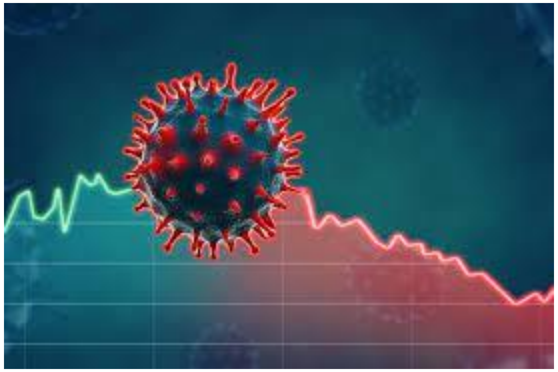
COMMITTEE FOR A RESPONSIBLE FEDERAL BUDGET

This consensus wobbled in the face of the Global Financial Crisis

- The United States adopted the $787 billion American Recovery and Reinvestment Act (or Obama Stimulus), causing federal government debt to shoot up from 64 percent of GDP at the beginning of 2008 to 84 percent at the end of 2009.
- Certain European countries, forced to recapitalize broken banking systems, experienced even larger increases in indebtedness.
- But once recovery dawned, and sometimes even before, governments took a quick right turn toward austerity.
- The events of 2008-09 were dismissed as no more than a temporary, if necessary, deviation from fiscal orthodoxy.

Enter COVID-19

- Now, however, governments are running unprecedented deficits and accumulating unprecedented debts – unprecedented, at least, in peacetime.
  - The U.S. federal government deficit is currently an extraordinary 13 per cent of GDP. Debt in the hands of the public exceeds 100% of GDP.
  - Germany abandoned its debt brake in favor of a deficit of 4.2 per cent of GDP in 2020.
  - Euro area wide, debt is more than 100 percent of GDP, just as in the U.S. – and far above Maastricht levels.
- We now witness the peculiar scene of European Commission officials, traditionally the enforcers of austerity, cautioning governments not to raise taxes or cut public spending prematurely.



Leading to two questions

- Is this change in attitudes and practices justified?
- And will it last?

Is it justified? Clearly, yes

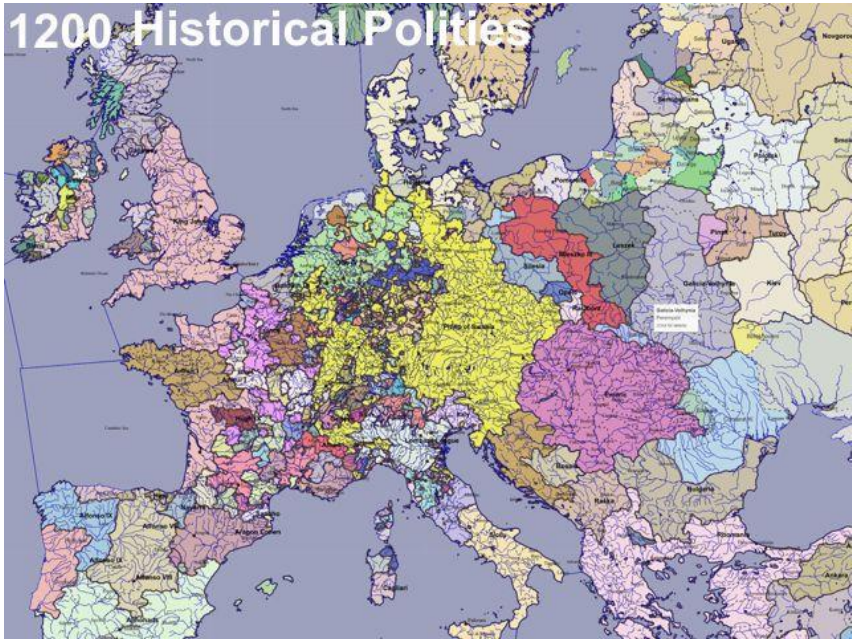
- Extraordinary circumstances, such as those of a global pandemic, when not just the livelihoods but also the citizenry's lives are at risk, justify extraordinary action.
- A government that does not respond to this kind of emergency by mobilizing all available resources, including resources mobilized by issuing debt, will not retain its legitimacy.
- Public debt scolds, when cautioning against deficits, tend to reason by way of analogy between the household budget and the government budget. Just as a responsible household should balance its budget and live within its means, so too, they argue, should a responsible government. Under ordinary circumstances, perhaps. But a government that doesn't borrow in order to provide essential services during a deadly pandemic would be accused of dereliction, and rightly.
- Such a government, to continue with the analogy, would be like parents who refused to borrow to obtain life-saving surgery for a child.

Indeed, states & rulers have long borrowed to meet emergencies

- First and foremost to finance wars.
  - Rulers borrowed to expand their territories but also to defend the realm and survive.
  - Borrowing to mount a sturdy national defense strengthened the state not just in the material sense of successfully repelling foreign invaders, but also in a political sense, since a state that provided an adequate national defense was seen as valuable and legitimate in the eyes of its public.

Making Europe the debt pioneer

- Because War was especially prevalent there.
  - After the collapse of the Carolingian Empire in 888, the European continent was divided into literally hundreds of princely kingdoms, many no more than cities with modest hinterlands.
  - Europe's geography as a landmass riven by mountain ranges and river valleys posed natural obstacles to the formation of more extensive territorial states.



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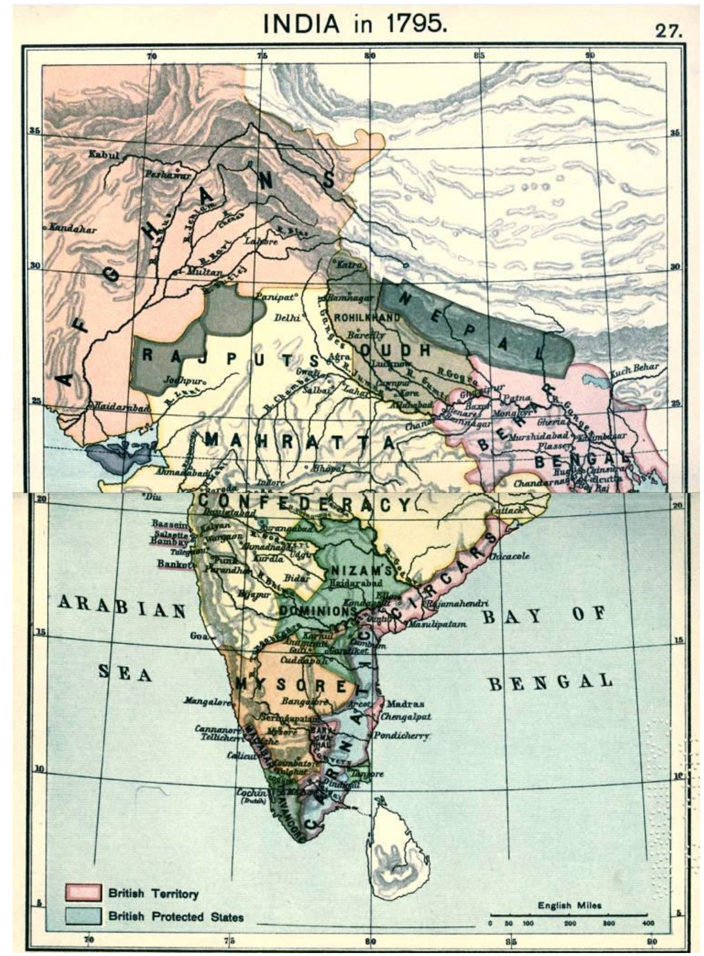
Making Europe the debt pioneer

- Of course, this map of the politically-fragmented Indian subcontinent reminds one that there were also other preconditions for issuing public debt.
- To which I will turn momentarily.



“So debts were accumulated in wartime, paid off in times of peace”

- In order that the sovereign and state could start with a clean financial slate and borrow again when war next broke out.
- Or so it is claimed.
- Not quite accurate.
  - Sometimes true, as we will see.
  - But other times not.
  - Increasingly over time, sovereign debt persisted. Levels of indebtedness rose over the centuries, as states built the economic, financial and political infrastructure needed to service and maintain additional obligations.

Subject to commitment problems

- The king or sovereign was traditionally regarded as the supreme earthly power. Ironically, this unlimited power limited his ability to borrow, since there was nothing to prevent him from unilaterally reneging on his obligations.
- Sovereigns could borrow, it followed, only for short terms and at high interest rates.
  - Kings might attempt to force loans on their subjects, but this risked fomenting rebellion.
  - Kings might "hypothecate" (pledge) the crown jewels as collateral to their foreign lenders. But such hypothecation, much less loss of the royal patrimony in the event of default, might fatally undermine public regard of the sovereign.
- Meaning that there were political (and economic and financial) preconditions for accumulating and maintaining larger debts.

Louis XIV

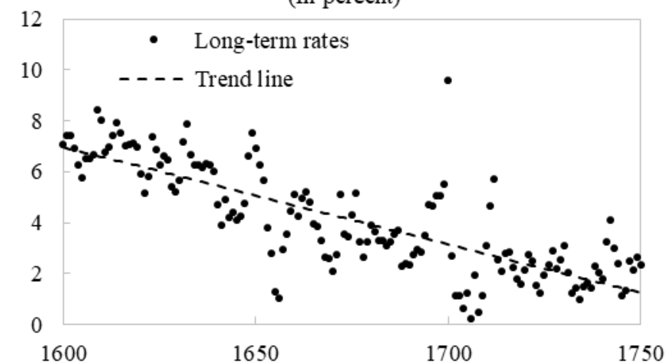
The Sun King

"L'Etat c'est moi"

Political preconditions

- Sovereign debt began its progressive rise to modern levels, therefore, only with the creation of representative assemblies, in which the creditors sat and were empowered to oversee tax collection, approve increases in spending, and authorize additional debt issuance.
- With the creation of such assemblies, first in Italian city-states such as Florence, Genoa and Venice and then in the Netherlands and England, real interest rates on sovereign debt came down.
- Sovereign debt came to be recognized as an obligation of the state rather than of the individual occupying the throne.

Figure 3.1: Long-term Borrowing Costs for Holland, Real Interest Rates, 1600-1750
(In percent)

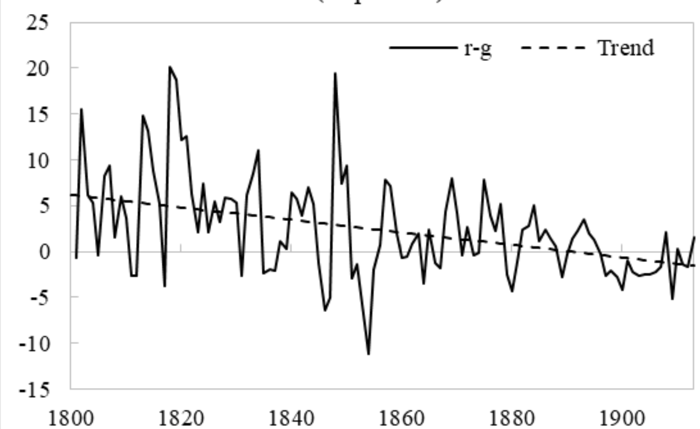


Sources: Schmelzing (2020) for the short-term rates and the Bank of England's database "A Millennium Macroeconomic Data" for the yields on long-term debt (consols) and prices.
Note: Inflation expectations are one-step-ahead forecasts from an ARMA(1,1) GARCH(4,1) model of Dutch price inflation.

Economic preconditions

- Not only did real interest rates come down, but come the 18th and 19th century economic growth rates went up.
- Meaning that the now famous *r-g* came down as well, making heavier debts more easily sustainable.
- In this sense modern public finance and modern public debt levels are corollaries of modern economic growth.

Figure 4.2: Global *(r – g)*, 1800-1913
(In percent)



Source: Schmelzing (2020).
Note: The global series is an average (weighted by GDP) of the r – g differentials of 8 economies: France, Germany, Italy, Japan, Netherlands, Spain, United Kingdom, and United States.

Economic preconditions

- In addition, in order to place debt in private hands, there had to be an adequate population of individuals with savings to invest.
  – Not surprisingly, we see the successful placement of public debt in private hands in the same times and places where commercial activity was expanding. Venice, Genoa, the Netherlands, and Great Britain, which were among the public debt pioneers, were all major naval and commercial powers in their day.
  – Similarly, French towns that were home to the Champagne fairs were among the first jurisdictions to successfully market what today we would call government bonds ("life rents" or "*rentes*").

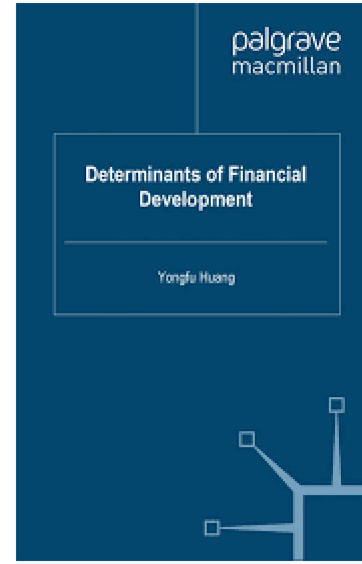
Financial preconditions

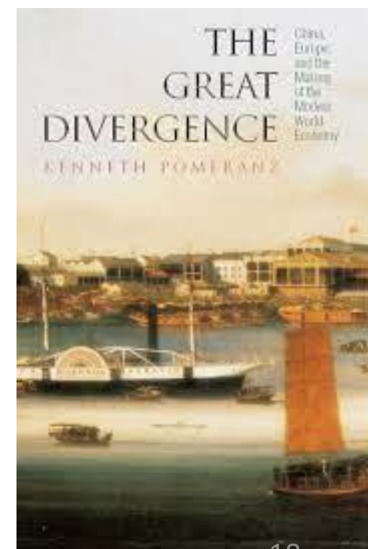
- Finally, successful debt issuers had to meet financial preconditions.
  - They created secondary markets on which debt securities could be bought and sold, allowing investors to diversify their claims and limit their risks.
  - They created an entity, generally a central bank, to backstop this market, ensuring its stability and liquidity.

With spillovers to private markets

- As government debt securities came to be seen as increasingly safe and liquid, they were accepted as collateral for other borrowing and lending.
- Thus, the growth of transactions in private debt provided a spur for the broader process of economic and financial development.

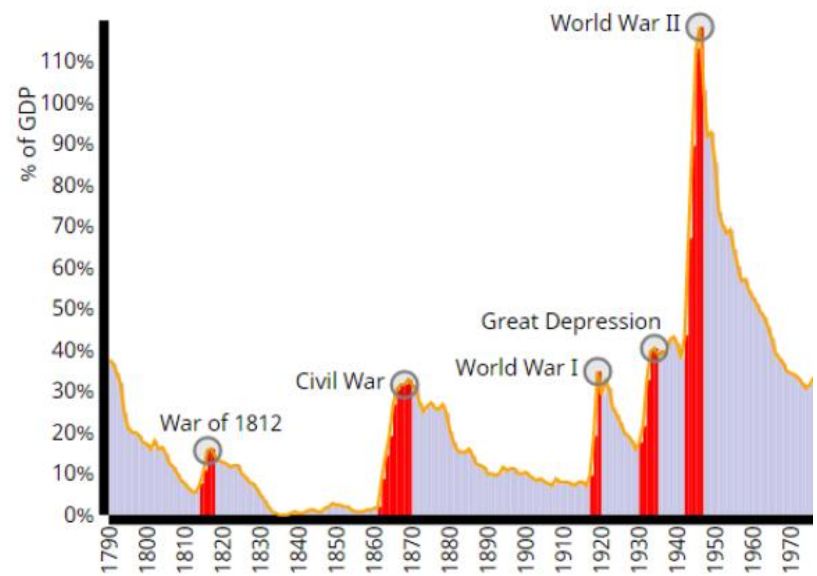
- Scholars sometimes ask "why Europe was first" - - why it was the first part of the world to experience modern economic, financial and commercial development.
- This precocity in issuing public debt is not the entire story. But it is a part.





Over time, the uses of public debt have evolved

- Financing wars remained and remains of premier importance. World Wars I and II thus saw the two largest public debt explosions of the 20th century.
  - Showing you at right the US case.
  - (Same was true after 9/11.)
- But governments borrowed in addition to invest in the infrastructure – roads, railways, ports, urban lighting and sewers – associated with modern economic growth.
- And then borrowing for social programs and transfer payments.
  - In the late 19th century
  - After WWI
  - In the Great Depression

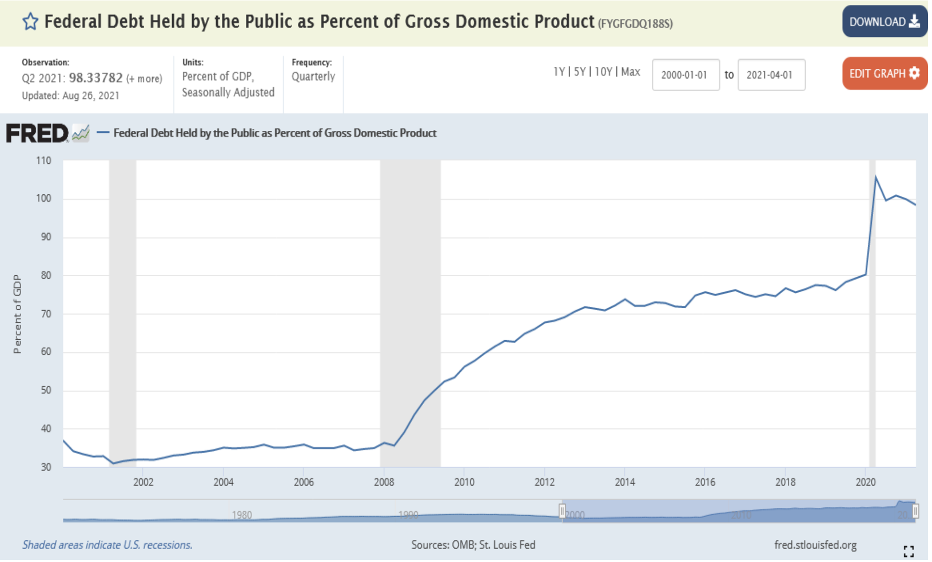


But why these expenditures couldn't be financed out of current revenues is less obvious

- Some elements of an answer:
- Tendency for demands to rise precisely when revenues fall.
  - Demand for additional spending on social programs is most intense when times are tough – when the economy is doing poorly, unemployment is high, and the growth of government revenues is slow.
- Political fractionalization
  - In a fractionalized polity, each political faction, while having just enough power to defend its preferred social programs, will not have enough power to cut spending on the preferred programs of others (Olson's "Logic of Collective Action" or Hausmann's "Fiscal Common Pool Problem."
- Political polarization combined with electoral uncertainty
  - Politicians will advocate more spending on their favored programs when in office (revenue constraints notwithstanding), since they may be in a weaker position to push such spending later when out of office.

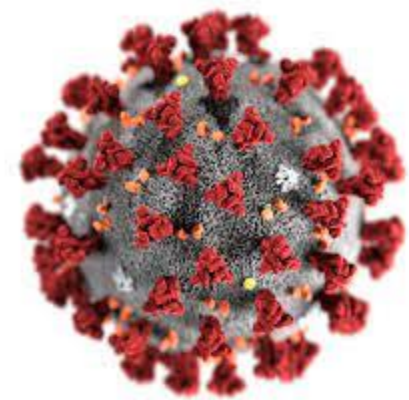
As a result, debt acquired a bad name

- ...as debts shot up in polities wracked by political fractionization and electoral uncertainty.
  - The duty of responsible political leaders, the conclusion followed, was to bring down heavy debts to more reasonable levels.
  - Leaders did what they could, some successfully, many not; in general, debts remained uncomfortably high.



At this point, COVID-19 intervened

- The public health emergency starting in March 2020 was perceived as a crisis tantamount to war, and it elicited a warlike fiscal response, as we have seen. The question is whether this sea-change in attitudes and actions will persist.
  - If the change in the fiscal landscape is simply the product of COVID, and no more, then shouldn't the intellectual tide go back out?
  - Shouldn't we expect the status quo ante, namely old attitudes cautioning against excessive debts, to resurface when herd immunity is reached?

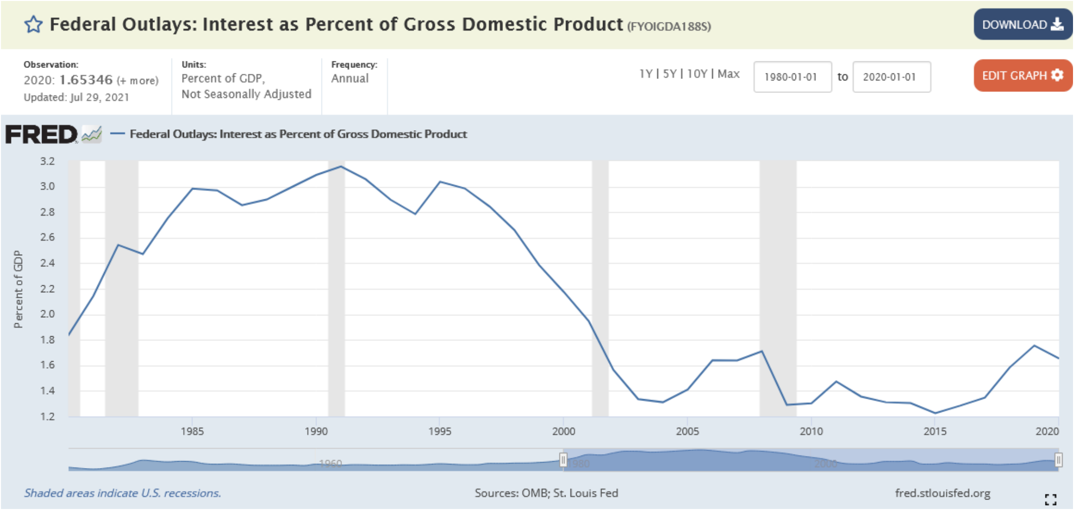


In fact, I would argue, the change in attitudes pre-dates COVID-19

- Premature austerity after the Global Financial Crisis.
- Piketty and inequality.
- Rajan and “fault lines.”
  - (Two handed economists)
- Growing recognition of the need for government to provide public goods (education, health care, basic research, transport infrastructure, climate-change abatement) that markets don’t adequately supply.
- Having swung from the “New Deal Order” to the “Neoliberal Order,” or we now swinging back to the “New New Deal Order”?

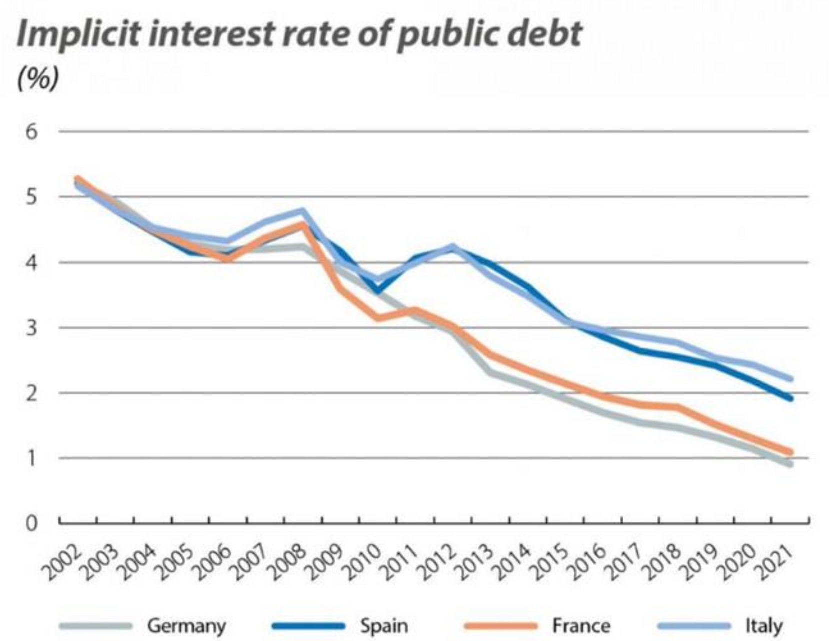
In addition, lower interest rates make heavier debts sustainable

- In the U.S., federal government debt service cost just 2 per cent of GDP in 2020, virtually unchanged from 2001, when the debt in the hands of the public relative to GDP ratio was barely a third as high.



In addition, lower interest rates make heavier debts sustainable

- Same is true in Europe (even Italy) as shown at right.
- Given the current low level of interest rates, there is no immediate crisis of debt sustainability.
- The fiscal status quo can be allowed to persist.



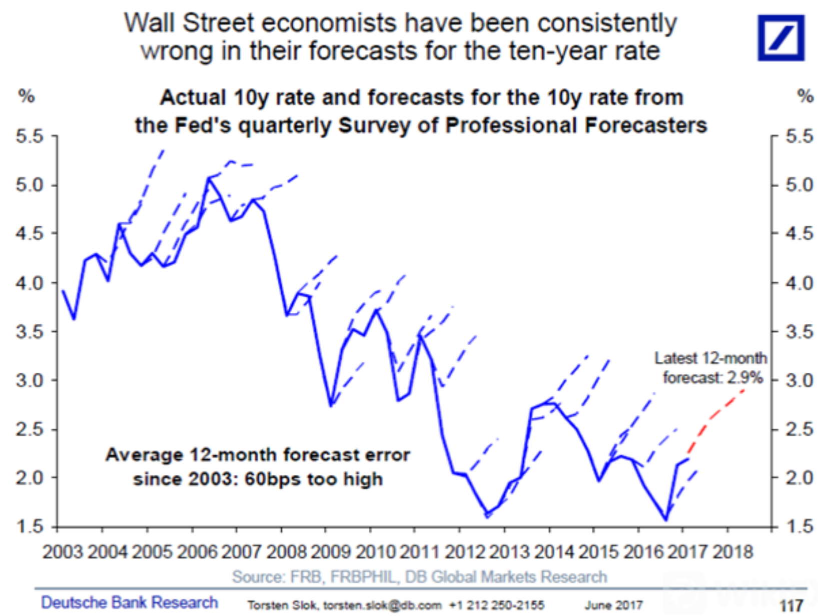
Source: *CaixaBank Research, based on data and forecasts from the European Commission (autumn 2020 forecast).*

The question being whether these low rates will, in fact, persist

- The answer depends on why you think rates are low:
  - The high savings of Germany, Saudi Arabia and fast-growing emerging markets such as China?
  - Because life expectancy in the advanced economies has risen by nearly five years over the last three decades, and when people live longer and enjoy more years of retirement, they sock away more savings while working?
  - Because of the shift from manufacturing to services and from factories to digital platforms?
  - Because of growing inequality and the high savings rates of the wealthy?

And as you know, there's much discussion of whether rates will remain low

- The savings rates of oil-exporting economies could fall as the demand for their petroleum dries up.
- Consumption in China could rise to levels more customary for a middle-income country as the government builds out the social safety net.
- Shifts in public policy could counter the trend toward increased inequality.



If interest rates rise, debt consolidation will become more urgent

- Basic debt dynamics:

$$d_T - d_0 = \sum_{t=1}^{T} p_t + \sum_{t=1}^{T} \frac{i_t - \gamma_t}{1+\gamma_t} d_{t-1} + \sum_{t=1}^{T} sfa_t$$

- Where *d* is debt/GDP
- Where *p* is primary surplus/GDP
- Where *sfa* is the stock/flow adjustment
- Where *i* and *g* are the nominal interest rate and growth rate respectively.

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Table 7.1: Decomposition of Large Pre-1914 Debt Consolidations

Country	Period	Debt/ GDP ratio			Decomposition		
		Starting level	Ending level	Decrease	Primary balance	Growth-interest differential	Stock-flow adjustment
UK	1822-1913	194.1	28.3	165.8	299.3	-158.5	25.0
USA	1867-1913	30.1	3.2	26.9	40.6	-12.5	-1.3
France	1896-1913	95.6	51.1	44.5	44.7	-0.8	0.7

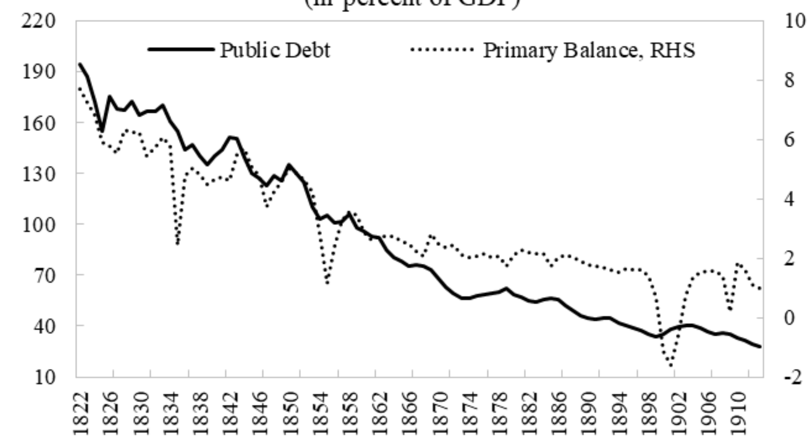
- So in all three cases it was done w/ fiscal effort

What made this possible?

- Britain
  - Victorian belief in sound finance (preserving the ability to borrow in a future conflict).
  - Limited influence of working class in Parliament (even after reform acts).

Figure 7.1: Public Debt and Primary Balance in the United Kingdom

(In percent of GDP)

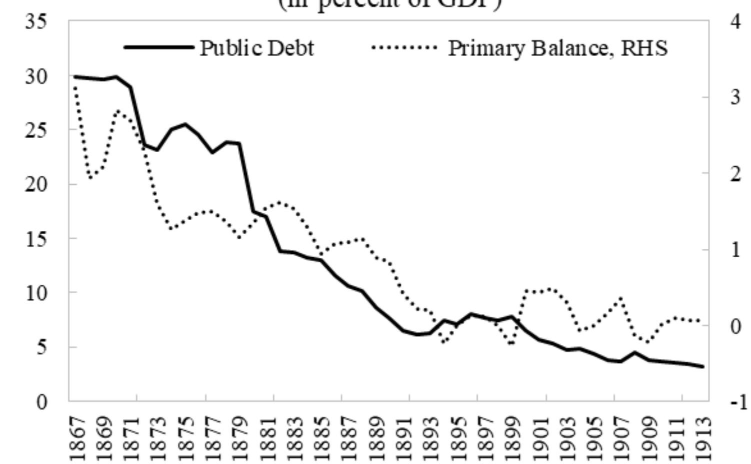


Sources: Bank of England's database 'A millennium of macroeconomic data: https://www.bankofengland.co.uk/statistics/research-datasets, and authors' calculations.

What made this possible?

- United States
  - Strong creditor influence as reflected in decision to return to gold (and Populist complaints about powerful banks and trusts).
  - Southern states opposed expansive federal spending.
  - Limited military spending needs prior to Spanish-American War.
  - Growth and immigration are widely seen as the story; not true.

Figure 7.3. Public Debt and Primary Balance in the United States
(In percent of GDP)

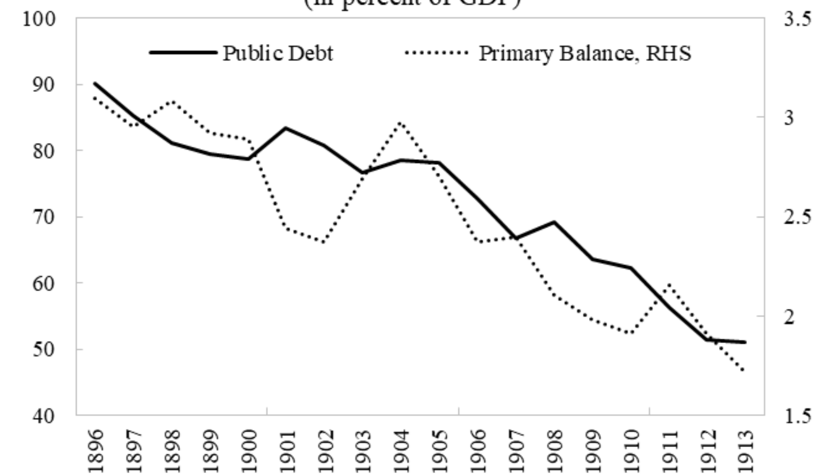


Sources: Carter et al. (2006) and authors' calculations.

What made this possible?

- France
  - Elites saw fiscal restraint and new taxes as a necessary evil, as enabling the country to prepare for another German war.

Figure 7.2: Public Debt and Primary Balance in France
(In percent of GDP)

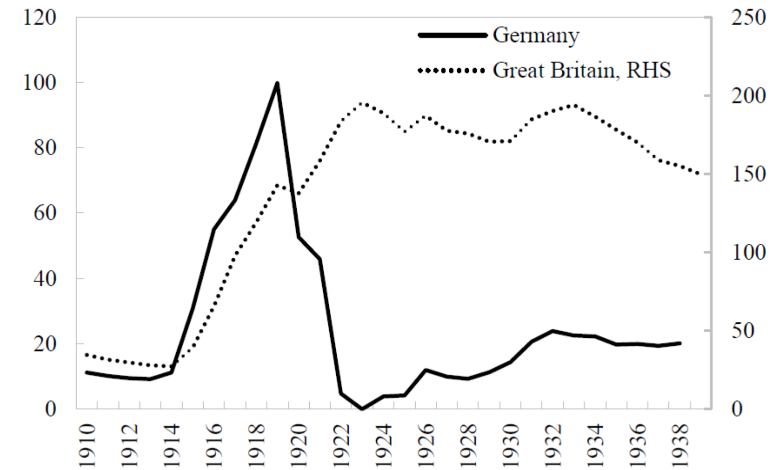


Sources: Flandreau and Zumer (2004) and authors' calculations.

And after World War I

- No consolidation in Britain.
  - Fiscal restraint, but also slow growth and high interest rates (“Under the harrow”).
  - So debt ratio remained high
- Liquidation in Germany
  - But burden of high borrowing rates thereafter.

Figure 8.3: Public Debt Ratio in Germany and Great Britain, 1910-38
(In percent of GDP)



Sources: IMF's Historical Public Debt Database and authors' calculations.

And after World War II

- Consolidations were *not* achieved purely by fast growth and financial repression.
- Primary surpluses also played a role.

Table 9.1: Decomposition of Large Post-WWII Debt Consolidations in Advanced Economies

	Debt/GDP ratio			Decomposition of Decrease		
	Starting level	Ending level	Decrease	Primary balance	Growth-interest differential	Stock-flow adjustment
Simple average	95.5	22.4	73.1	22.6	82.6	-32.2
Weighted average	112.0	26.2	85.8	33.3	80.2	-27.7

Sources: IMF's Historical Public Debt and Historical Public Finance Databases and authors' calculations.
Notes: Episodes are identified based on debt reduction of at least 10 percentage points of GDP during 1945-75. Peak-to-trough episodes (years vary by each country). The countries (episodes) included are as follows: Australia (1946-75), Austria (1948-57), Belgium (1945-74), Canada (1945-74), Finland (1945-74), France (1946-69), Greece (1952-58), Ireland (1958-73), Italy (1945-47), Japan (1946-64), Netherlands (1946-74), New Zealand (1946-74), Portugal (1945-74), Spain (1945-75), Sweden (1945-66), Switzerland (1945-68), United Kingdom (1946-75), and United States (1946-74). Germany was excluded because the debt decline did not satisfy the criteria of at least 10 ppt of GDP decline in the debt ratio during 1945-75.

But can it be done now?

- Through persistent primary surpluses?
  - Only under special circumstances.
  - Norway after 1999, Belgium after 1995, Singapore after 1990.

ECONOMIC POLICY

LATVIJAS BANKA
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Economic Policy
Sixty-first Panel Meeting
Hosted by the Bank of Latvia
Riga, 17-18 April 2015

A Surplus of Ambition: Can Europe Rely on Large Primary Surpluses to Solve its Debt Problem?

Barry Eichengreen (University of California, Berkeley)
Ugo Panizza (The Graduate Institute, Geneva)

The organisers would like to thank the Bank of Latvia for their support.
The views expressed in this paper are those of the author(s) and not those of the supporting organization.

CEPR Centre for Economic Policy Research
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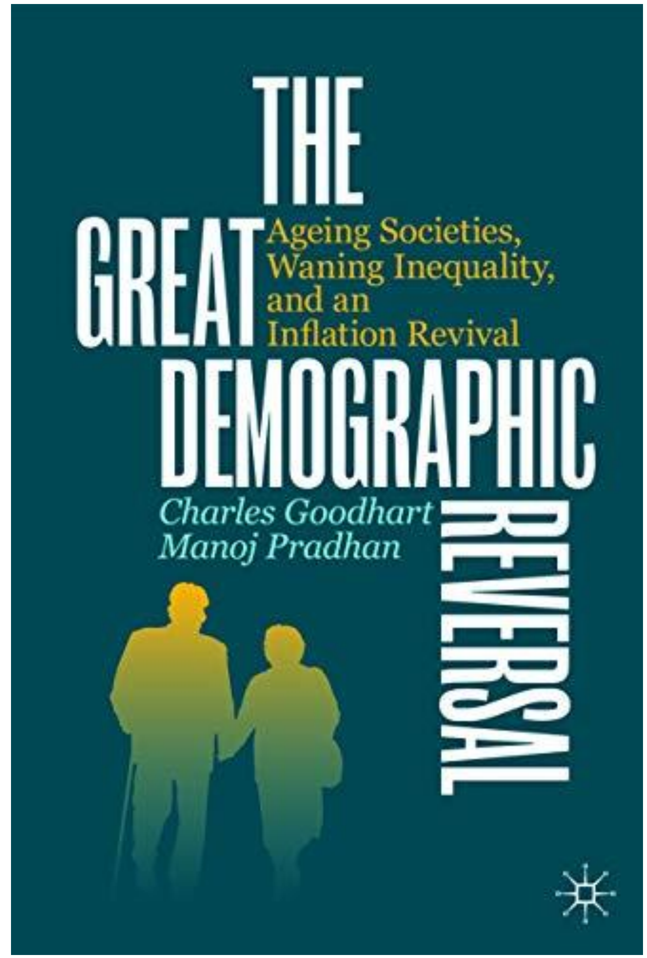
But can it be done now?

- Through surprise inflation
  - These authors argue that debts will be inflated away.
  - But investors will adjust maturities, so it will have to be a big surprise.
  - And stability culture is deeply ingrained in the central banking community.



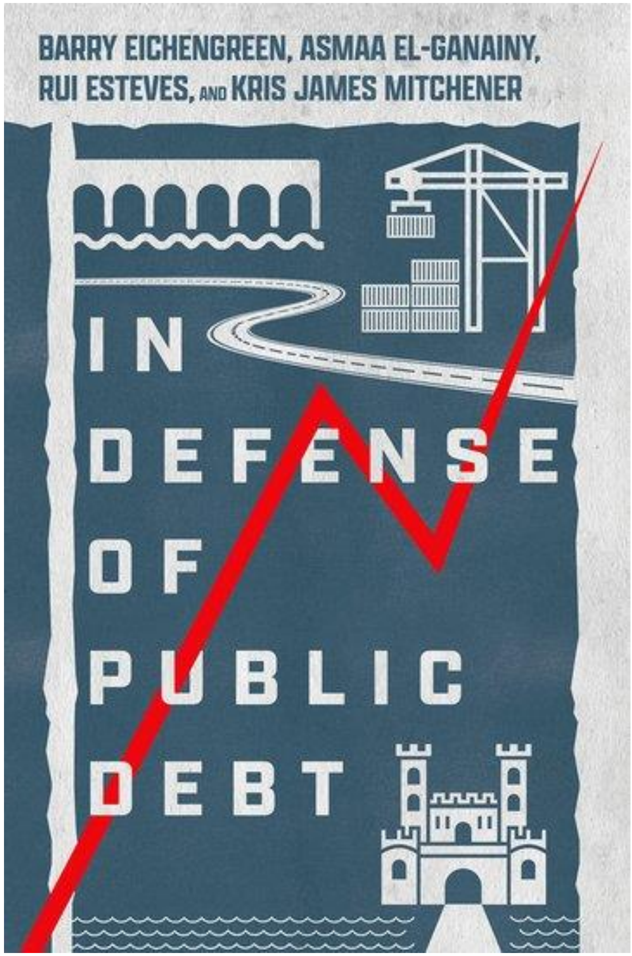
But can it be done now?

- Through faster growth?
  - This is what Europe is hoping for with its Recovery Fund.
  - But we lack a magic elixir.
  - History suggests that productivity growth accelerates in response to technology shocks only with a lag.

The whole convoy (Photo: Edward J. Mandel Collection/Eisenhower Archive)

All of which is to say that there are no simple solutions

- History shows that countries that have successfully addressed problems of debt sustainability without major economic, financial and political dislocations have done so by turning to fiscal restraint when the time was right (and not before), by growing their economies, and by running modest rates of inflation (and avoiding deflation).
- Failing to address the problem from all three angles is a recipe for disaster.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