

Lessons from Optimal Fiscal and Monetary Policy

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(This presentation summarizes ongoing work with V.V. Chari, J. Nicolini and E. Pastorino)

Sensible Policies are Formulated as Rules

- John Taylor's work made it clear *not sensible* to ask: what should we do today?
 - sensible to ask: what rules should we adopt and stick to?
 - he successfully applied this reasoning to determine a **practical monetary policy rule**

- We should follow John's lead and work on a **practical fiscal policy rule**
 - current fiscal policies violate basic principles for optimal fiscal rules

- Today: discuss how *should* finance gov't spending with taxes, debt and inflation
 - contrast desirable policies with how *have* financed it
 - argue major changes to fiscal policy needed to avoid future inflation and default on debt

Prescriptions from Optimal Fiscal Policy

- Premise: PV of revenues must equal PV of expenditures

- From Lucas and Stokey (1983) and Chari, Christiano and Kehoe (1994)
 - desirable to keep labor taxes roughly constant to smooth tax distortions over time
 - what are the implications for debt?

Since government spending shocks on wars swamp all other types: will focus on them

Taxes and Debt: Perfectly Foreseen Recurrent Wars

- Build intuition: start with *perfectly foreseen* wars (deterministic war-peace cycles)

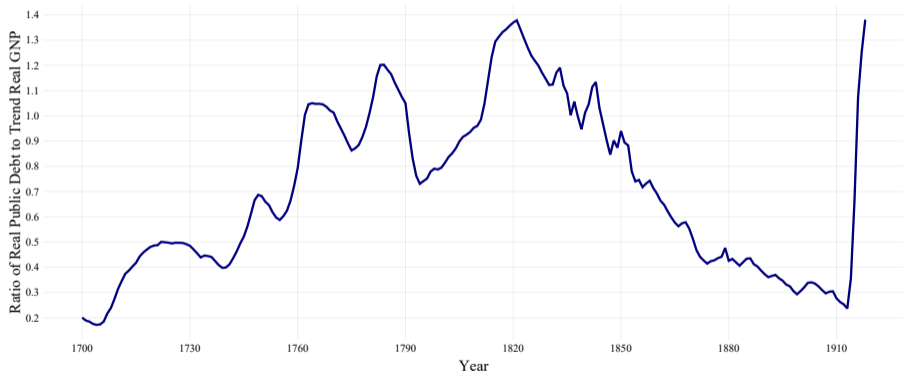
- Plan for labor taxes and debt: same constant tax rates in peace and war
 - in peacetime, *run down debt* to prepare for war
 - in wartime, *issue new debt* to pay for war

Next: Britain followed Lucas-Stokey plan for debt management from 1700 to 1918

Britain Followed Optimal Policy Advice

Ratio of Real Public Debt to Trend Real GNP: Britain 1700-1918

Source: Barro (JME, 1987)

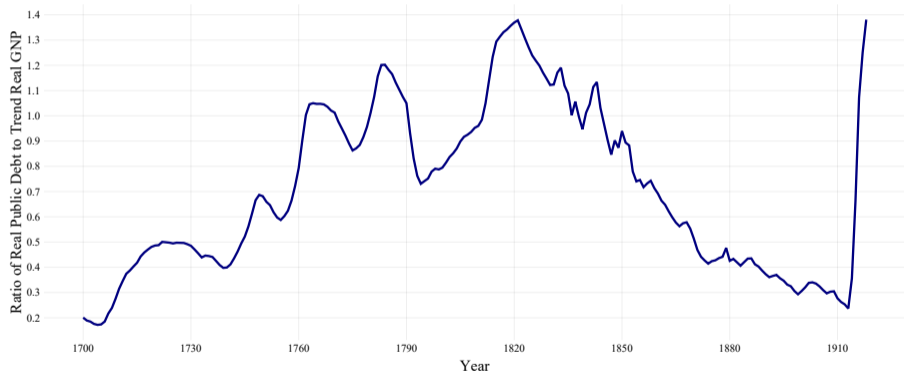


Responsible policy: *run up* debt during wars, *run down* debt during peace

Britain Followed Optimal Policy Advice

Ratio of Real Public Debt to Trend Real GNP: Britain 1700-1918

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At end of peace, debt back to initial level so ready for next war

Prescriptions with Stochastic Recurrent Wars

- Consider next *stochastic recurrent wars* (probabilistically cyclical wars)
 - now have implications for inflation as well
- As before: desirable to keep labor taxes \approx constant to smooth tax distortions
- Now: desirable to **make real returns on nominal debt vary with state of economy**
 - by varying inflation rates to *transform nominal debt into real state-contingent debt*
 - so as to move resources from *peacetime states* to *wartime states* when need them
- Also desirable to **have no ex-ante distortions on savings**
 - ex ante: balance inflation in some states with deflation in others
 - so average returns on nominal debt not distorted

Taxes, Debt and Inflation: Stochastic Recurrent Wars

- Same plan for labor taxes as for perfectly foreseen wars
 - in peacetime, *run down debt* to prepare for war
 - in wartime, *issue new debt* to pay for war

- Plan for inflation tax/subsidy on nominal debt: buy insurance
 - when war breaks out: *inflate to decrease value of debt*
 - when peace is restored: *deflate to increase real value of debt*
 - raises no revenues ex ante instead *transfers resources from peace to war*

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Next: historical evidence on optimal inflation policy implemented under gold standard

Bordo-Kydland Evidence: Implementing Inflation Policy

- Gold standard was not a *fixed* but rather a *contingent* rule as in Lucas-Stokey plan
 - it was suspended during war to *decrease* value of local currency and induce inflation
 - this suspension was then followed by commitment to return to pre-war parity in peace
 - so as to induce deflation
- Britain, France and U.S. implemented exactly this policy in past
 - **suspended** gold standard during war but then **returned** to pre-war parity in peace
- Key message from Bordo and Kydland (1995)

“The commitment to return to gold parity after the war enabled the authorities to issue debt to collect seigniorage at more favorable terms than otherwise.”

Next: why fiscal policy matters

Why Fiscal Policy Matters? Lessons from History

- Sargent and Velde (2003): France and England fought many wars in 18th century
 - despite French population being four times as large as English population
 - England won every time (except for American Revolution)

- North and Weingast (1989): fiscal policy institutions matter
 - the English Glorious Revolution eliminated British kings' ability to default
 - no such institutions existed to restrain French kings from defaulting

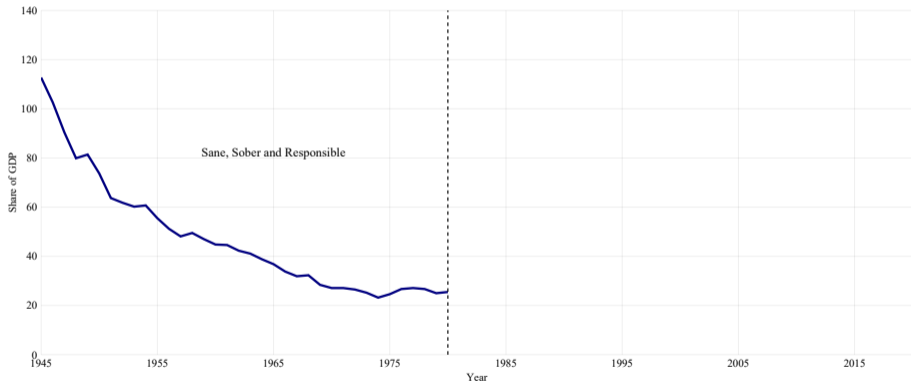
- Britain raised much more funds than France to fight wars
 - perhaps English *fiscal policy helped win the wars* with France

Have We Been as Responsible as Our Forebears?

Federal Debt as Share of GDP: Historical Path

Federal Debt Held by the Public as Share of GDP

Source: CBO and OMB

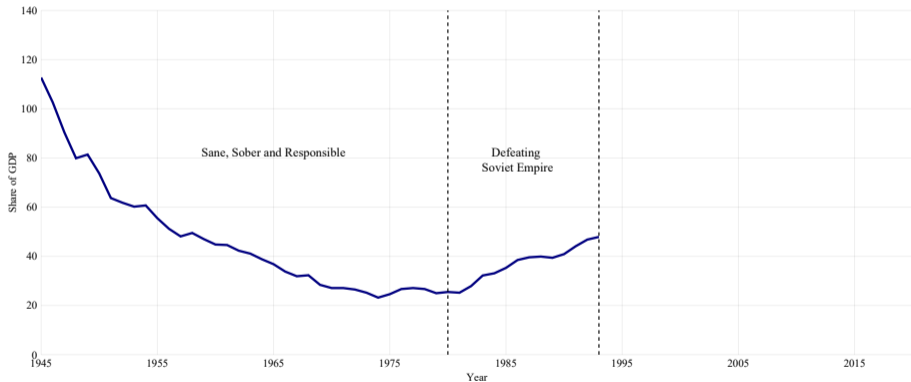


Responsible policy: *run down* debt during peace

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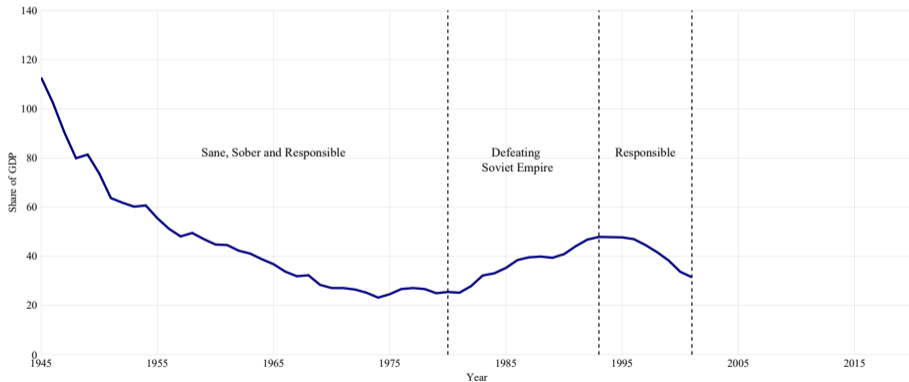


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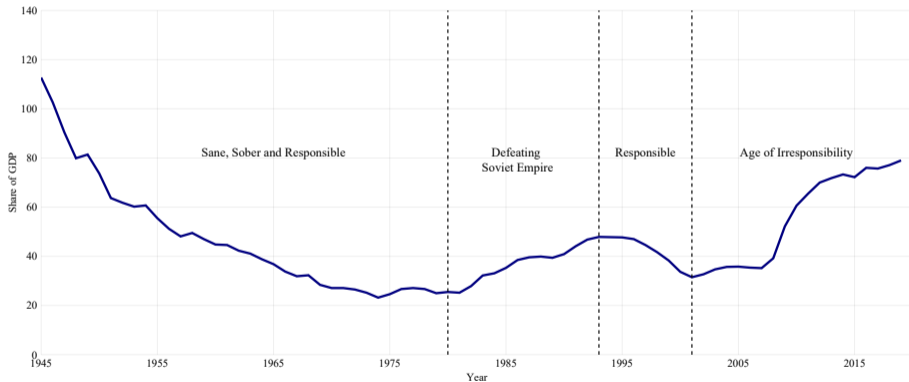


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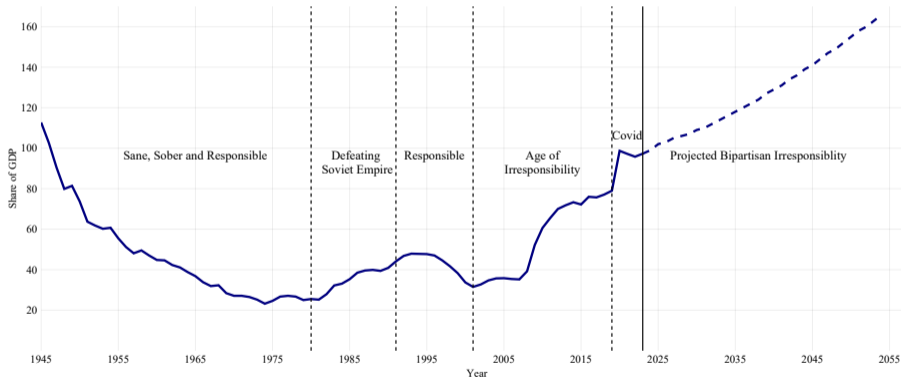


Now: we have entered a new Age of Irresponsibility

Federal Debt as Share of GDP: Future Projection

Federal Debt Held by the Public as Share of GDP

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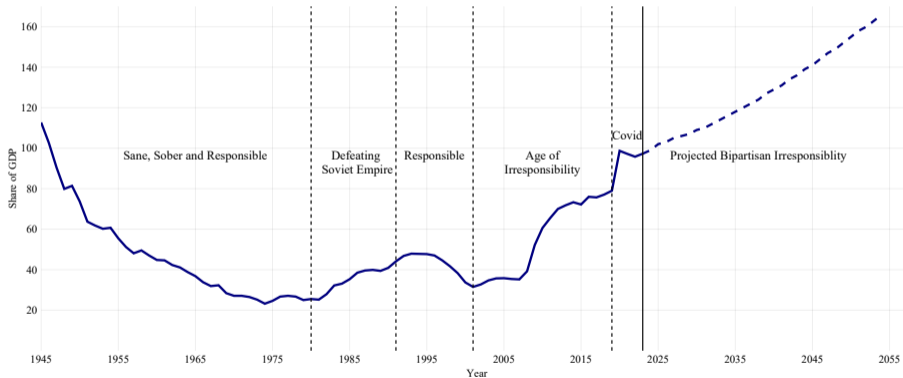


What will happen going forward? Debt is projected to reach *unprecedented levels*

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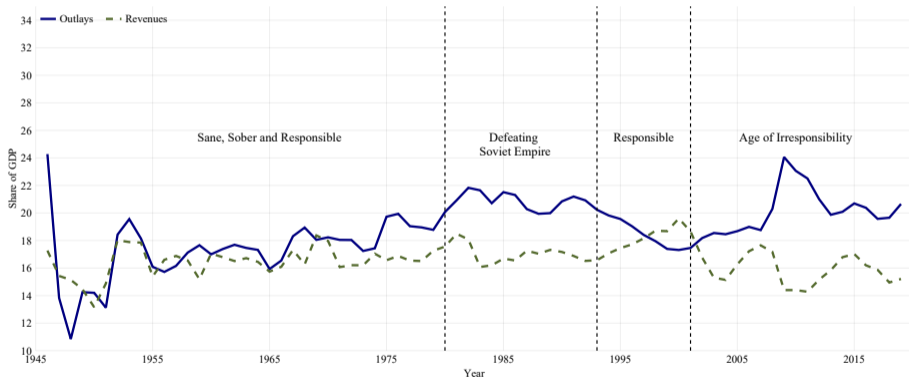


How did we build up such an amount of debt?

Federal Debt as Share of GDP: Future Projection

Federal Revenues and Outlays as Share of GDP

Source: CBO and OMB



By consistently *spending more than raised through taxes* during peace

Root of Problem: Ever Expanding Entitlement Programs

- John Cogan (2017): “High Cost of Good Intentions”

“Federal entitlement programs are strewn throughout the pages of U.S. history, springing from the noble purpose of assisting people who are destitute through no fault of their own... Neither tax revenues nor revenues generated by the national economy have been able to keep pace with their rising growth, bringing the national debt to a record peacetime level.”

- Since WWII, share of federal spending to GDP increased by 6%
 - growth in entitlement spending accounts for all of it
 - share of spending on all else has declined (including defense)
- Current high spending/low tax regime not feasible: U.S. must choose between
 - being *modest* welfare state with low spending and low taxes
 - being *high* welfare state with high spending and high taxes

Key Lesson from Theory for Fiscal Policy

- Keep your powder dry
- Why? History tells us we will have wars
- Having fiscal capacity deters our adversaries

The Future Through the Lens of Theory

- Will China invade Taiwan?
- Will Russia invade Poland?
- If so, will we rue our current irresponsibility?

The Future Through the Lens of Theory

- Will China invade Taiwan?
- Will Russia invade Poland?
- If so, will we rue our current irresponsibility? **Remember France vs. Britain**

Why Monetary Policy Matters? Lessons from History

- Evidence: nearly all high-inflation episodes originated from two forces
 - irresponsible fiscal policy
 - monetary authority that bowed to pressure to monetize the debt

- Evidence documented in
 - Sargent (1982): “End of Four Big Inflations”; many papers by G. Hall and Sargent
 - T. Kehoe and Nicolini (2021): “A Monetary and Fiscal History of Latin America”

- In the face of irresponsible fiscal policy: we must resist pressure to monetize debt
 - we should not enable reckless fiscal policy
 - we should let debt expand till pressure mounts to reduce it
 - often instit’l reform needed e.g. more independent central banks (Brazil’s *real* plan)

Concluding Remarks: Implications for United States

- Fiscal and monetary policy are intimately connected
 - root of problems is imprudent fiscal policy
 - once fiscal policy fixed, monetary policy easy
- Idea: adopt balanced-budget rules as those of fiscally responsible U.S. states
 - separate *operating budget* (current spending) & *capital budget* (long-term investments)
 - impose budget balance on operating budget
 - allow for limited escape clauses that require supermajority (e.g. Utah's experience)
- In meantime: monetary authorities need to resist pressure to monetize the debt
 - letting deficits build up puts pressure for reform
 - this dynamic played out numerous times

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- In meantime: monetary authorities need to resist pressure to monetize the debt
 - letting deficits build up puts pressure for reform
 - this dynamic played out numerous times: **hopefully it will again**