

Fiscal Macroeconomics

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1 The Structure of the Course

2 Overview

- The Keynesian and Neoclassical Views
- Tracking Intertemporal Budget Constraints
- Empirical Evidence on Fiscal Policy Effects
- The Dynamics of r and g
- Debt Instruments and Mispricing
- Good Debt and Bad Debt

3 Topics for students' presentation

- Why are Government debts increasing?
- Fiscal Policy in Modern Macro
- Modern Monetary Theory
- The Fiscal Theory of Price Level
- Government Debt Management
- Fiscal Rules and the SGP
- The Case for Retirement Bonds
- Is a Serious Global Debt Crisis Possible?

- Instructors: Francesco Giavazzi (FG) and Carlo Favero (CF)
 - Tutor: Dev Srivastava (dev.srivastava@unibocconi.it)
- Structure of the course:
 - general exam
 - class presentations
 - possibility of extra credit for participation in guest lectures (very special guests!)
 - course material available at
[https : // mypage.unibocconi.eu / carloambrogiofavero /](https://mypage.unibocconi.eu/carloambrogiofavero/)

This course focuses on the macroeconomic effects of fiscal policy and is organized into six main topics:

- The Keynesian and Neoclassical views on government expenditure.
- Tracking intertemporal budget constraints.
- Empirical evidence on the macroeconomic effects of fiscal policy.
- The dynamics of r and g .
- Debt instruments and debt mispricing.
- Good debt and bad debt.

The Keynesian and Neoclassical Views

We begin with the debate on the macroeconomic effects of government expenditure, independent of its quality.

Keynes's Statement

"If the Treasury were to fill old bottles with banknotes, bury them at suitable depths in disused coal mines which are then filled up to the surface with earth, and leave it to private enterprise on well-tryed principles of laissez-faire to dig the notes up again, there need be no more unemployment and, with the help of the repercussions, the real income of the community, and its capital wealth also, would probably become a good deal greater than it actually is. It would, indeed, be more sensible to build houses and the like; but if there are political and practical difficulties in the way of this, the above would be better than nothing."

— J.M. Keynes, *The General Theory of Employment, Interest and Money* (1936)

This contrasts with the analysis of fiscal policy in a world without frictions and rational forward-looking agents.

Tracking Intertemporal Budget Constraints

The contrast between the Keynesian and Neoclassical views highlights the difference between:

- A single-period approach.
- A multi-period intertemporal approach.

We will discuss:

- The Intertemporal Households Budget Constraint (IHBC).
- The Intertemporal Government Budget Constraint (IGBC).
- Tracking debt dynamics over time.

Empirical Evidence on Fiscal Policy Effects

We will analyze:

- The main issues in measuring the effects of fiscal policy.
- How these issues are addressed in the literature.
- Key results from empirical studies.

The Dynamics of r and g

The Intertemporal Government Budget Constraint (IGBC) highlights the importance of:

- The cost of financing debt (r).
- The rate of economic growth (g).

We will explore these dynamics:

- Theoretically.
- Using empirical data.

Debt financing depends on:

- Government choices of debt instruments.
- Market pricing of these instruments.

We will examine:

- Misalignments between bond prices and fundamentals.
- Consequences of mispricing.
- Potential institutional solutions.

Good Debt and Bad Debt

Good Debt

Provides resources to current and future generations (e.g., health, infrastructure, reducing emissions).

Bad Debt

Finances political support by transferring resources from future generations (non-voters) to current generations (voters).

Example of bad debt: The "110 percent superbonus" introduced by the Italian government in 2020.

This course equips you with tools to:

- Analyze the macroeconomic effects of fiscal policy.
- Critically assess empirical evidence.
- Evaluate fiscal policy design and its implications.

Students' Presentations

Eight topics are offered for Students' Presentations.

1. Why are Government debts increasing?

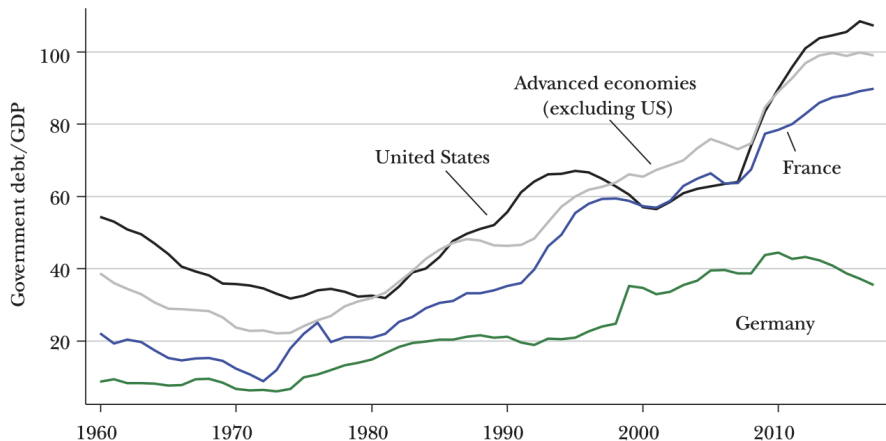
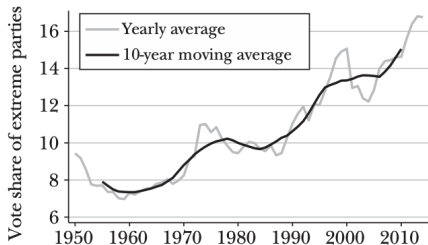


Figure: Government Debt in Advanced Economies

- In normative macroeconomic theories public debt serves to facilitate **tax-smoothing** and provide a **safe asset**
- However, the broad-based long-run trend in debt accumulation seems inconsistent with these theories of optimal government debt policy:
 - With an aging population and long-term rise in fiscal pressures, tax-smoothing would have prescribed a decumulation of debt
 - The financial deregulation and increase in private sector debt between 1980 and 2007 would suggest a decrease in public debt (according to the safe asset provision theory).
- Yared (2019): An increasingly **older population**, rising **political polarization**, and rising **electoral uncertainty** can explain the long-run trend in government debt

Political Economy Trends

A: Rising Vote Share of Extreme Parties in the Legislature in Advanced Economies
(percent)



B: Rising Fractionalization in the Legislature in Advanced Economies
(percent)

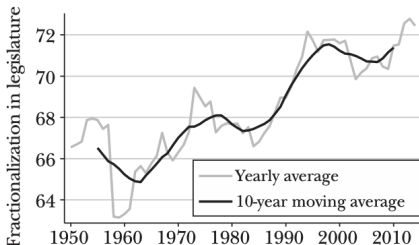


Figure: Political Polarization and Fractionalization in Advanced Economies

2. Ricardian Equivalence and Fiscal Policy

- Ricardian Equivalence suggests that government debt has no effect on real economy.
- Fiscal policy is ineffective for boosting aggregate demand since households save more to offset future tax burdens.
- Challenges
 - **Finite lives:** With shorter horizons, households may not fully internalize future tax liabilities, breaking equivalence.
 - **Liquidity Constraints:** Some households cannot smooth consumption, making fiscal transfers impactful.
 - **Nominal Rigidity:** Price stickiness allows deficits to stimulate aggregate demand in the short run.

Classical Defense of Ricardian Equivalence

- Intergenerational transfers neutralize the impact of finite lives, maintaining Ricardian Equivalence.
- Fiscal transfers to liquidity constrained household have a positive wealth effect only if the government is more efficient than the private market in carrying out "this sort of loan".
- Government transaction costs for bond issue and tax collection imply a negative wealth effect of government bonds.
- A negative wealth effect seems as convincing as the argument for a positive wealth effect.

Self-Sustaining Deficits?

- Self-sustaining deficits occur when fiscal deficits finance themselves over time, reducing or eliminating the need for future tax increases or spending cuts.
- Key Mechanisms:
 - Fiscal deficits stimulate economic activity, broadening the tax base and generating higher revenue without raising tax rates.
 - Increased inflation reduces the real value of nominal debt, lessening repayment burdens.
- Chen, Lian, and Wolf (2023) demonstrate that delaying fiscal adjustment enhances these channels, potentially allowing deficits to converge back to initial debt levels without additional intervention.

3. Modern Monetary Theory (MMT)

- MMT posits that sovereign governments with their own currency (US, UK, etc.), are not constrained by revenue when funding spending.
 - They can issue currency to finance deficits without default risk
 - Inflation and resource constraints, not debt levels, are the primary limits.
- Advocates for a shift in focus from "how to pay for spending" to "how spending impacts the economy"
 - tool for achieving societal goals like full employment, sustainable economic growth, equitable resource allocation (and inflation control?)

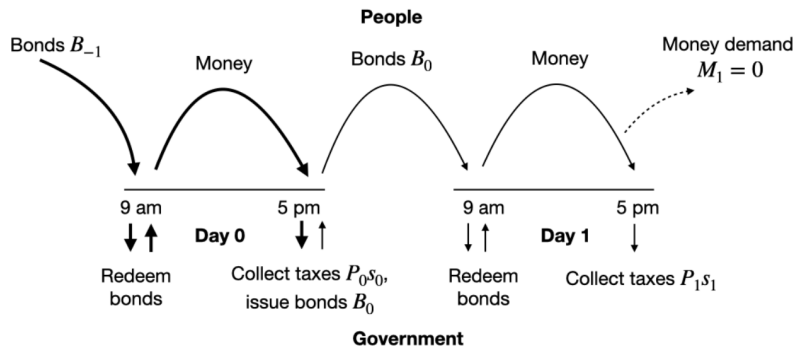
Some Deficit Myths (according to MMT)

- Kelton. S. (2020): The Deficit Myth
- Myth 1: The government should budget like a household.
 - Households use currency; governments create it.
- Myth 2: Deficits = Overspending
 - Deficits = private sector savings, not fiscal mismanagement.
 - Evidence of overspending is inflation
 - Taxes are tools for managing inflation, resource utilization and inequality, not funding
- Myth 3: Deficits crowd out private investment
 - Wrong assumption that government competes with other borrowers for access to limited supply of savings
 - Fiscal deficits increase private saving

4. The Fiscal Theory of Price Level

- Premise: Money is valued because the government accepts money for tax payments.
- The price level adjusts to ensure the real value of government debt matches the present value of real primary surpluses.
- Implies that over the long run, fiscal policy, not monetary policy, determines inflation.
- Intuition: One-period model

One-Period Model



- Cash printed up in the morning must all be soaked up by taxes at the end of the day, i.e., $B_0 = P_1 s_1$
- Debt B_0 is predetermined. The price level P_1 adjusts to satisfy

5. Government Debt Management

- Government debt management is a separate policy with different objectives from those of fiscal and monetary policies
- Risk on debt depends on:
 - composition of the debt (the risk exposure): largely endogenous to the debt manager
 - the changes in market rates (the risk factors): exogenous
- Risk exposure indicators can provide information on interest rate risk, foreign exchange risk, and refinancing risk.
- Goal to identify debt compositions that provide low expected cost and are resilient to a range of shocks to interest rates and exchange rates.

- Quantitative analysis (like scenario models) facilitate the identification of debt management strategies
- A key set of inputs to scenario analysis are future market rates, i.e. interest rates and exchange rates
 - a baseline that provides the expected cost
 - risk scenarios that provide information on the riskiness of the debt portfolios generated by different borrowing strategies
- Main output of scenario analysis are future cash flows
- Future risk exposure indicators can also be calculated on the basis of the simulated cash flows

6. Fiscal Rules and the SGP

The modification of the SGP and the new fiscal rules for European Countries.

7. The Case for Retirement Bonds

- Looming retirement crisis
 - individuals asked to take responsibility of their retirement planning
 - majority are financially unsophisticated
- Retirement plans require complex decisions:
 - how much to save?
 - how to invest?
 - how to decumulate one's portfolio at retirement
- Need to account for not only for inflation but also standard of living
- Current investment approaches focus on wealth at retirement, instead of guaranteed retirement income to support a given standard-of-living

- BTTPI is a single, liquid, low-cost, relatively low-risk (government-issued) instrument for retirement
- It embeds accumulation, decumulation, compounding and inflation-adjustments
- Matches the desired real retirement income profile of individuals
- BTTPIs start paying investors upon retirement, and pay real income-only
 - ideally indexed to aggregate per capita consumption
- purely market-based instrument, i.e., market forces at the time of issuance will determine its issue price and its secondary market price.

8. Is a Serious Global Debt Crisis Possible?

A Symposium of views on the possibility of a debt crisis is offered. The task here is their exposition and critical analysis by organizing them around the topics offered in the course.