Fiscal Policy

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Lectures: Wednesdays 7:30pm-10:30pm, Room: BM&F Bovespa 1 (200 Rua Quata, 3rd floor)

Target Audience: This is an elective course for the Macroeconomics sequence of the Master of Science in Economics program offered by Insper.

Coursework: This course is dedicated to the study of macroeconomic fiscal policy with a particular emphasis in the recent Brazilian experience. We will cover concepts like Ricardian equivalence, the Laffer Curve, intra and intergenerational insurance, unpleasant monetarist arithmetic, the fiscal theory of the price level and fiscal multipliers. The underlying models set the background for the analysis of critical fiscal policy issues in recent Brazilian history. For example, we will discuss the trade-offs involved in different forms of taxation (income, consumption, corporate) and different income support programs (means-tested vs universal basic income), pension system reforms, the hyperinflation of the 1980s, the inflationary episodes of 2003 and 2015, and the sources of inefficiency in public sector governance.

Grading: Your grade will be based on:

a) Three problem sets: 20% weight
b) One term project, on 06/18/2025: 30% weight
c) One final exam, on 06/25/2025: 50% weight

Term Project: One individual or group project (up to 3 students/group). Each project must cover a fiscal policy issue that was, is, or - if you can argue - will be of interest to the Brazilian public. You must describe the issue and explain trade-offs involved in the potential solutions. Students will present their projects on the lecture scheduled for 06/17/2024. Grades will be based on problem description, the group's ability to use course tools/models, and seminar presentation quality.

Prerequisites: First-year Macroeconomics core sequence, or equivalent. Knowledge of, at least, one numerical programming language (e.g.: MatLab, Python, Julia, R).

1. Dynamic Fiscal Policy (4 lectures)

1.1. The Two-Period Model and Equilibrium

The government's budget constraint. Ricardian Equivalence. Consumption vs income taxation. Public debt and capital market equilibrium.

- Chapters 10 and 11 in Ljungqvist, L. and Sargent, T. J. (2018). *Recursive Macroeconomic Theory*. MIT press, 4 edition
- Kormendi, R. C. (1983). Government Debt, Government Spending, and Private Sector Behavior. *The American Economic Review*, 73(5):994–1010
- Modigliani, F. and Sterling, A. (1986). Government Debt, Government Spending and Private Sector Behavior: Comment. *The American Economic Review*, 76(5):1168–1179
- Evans, P. (1988). Are Consumers Ricardian? Evidence for the United States. *Journal of Political Economy*, 96(5):983–1004
- Johnson, D. S., Parker, J. A., and Souleles, N. S. (2006). Household Expenditure and the Income Tax Rebates of 2001. *American Economic Review*, 96(5):1589–1610
- Shapiro, M. D. and Slemrod, J. (2009). Did the 2008 Tax Rebates Stimulate Spending? *American Economic Review*, 99(2):374–379
- Parker, J. A., Souleles, N. S., Johnson, D. S., and McClelland, R. (2013). Consumer Spending and the Economic Stimulus Payments of 2008. *American Economic Review*, 103(6):2530–2553

1.2. Taxation and Inequality

Income risk. Taxation and labor supply. Incentives vs insurance. Efficiency vs equality. Means-tested vs universal basic income programs.

Application: Bolsa família and other income programs.

- Berriel, T. C. and Zilberman, E. (2011). Targeting the poor: A macroeconomic analysis of cash transfer programs. Working Paper, Fundação Getulio Vargas. Escola de Pós-graduação em Economia
- Lopez-Daneri, M. (2016). NIT picking: The macroeconomic effects of a Negative Income Tax. *Journal of Economic Dynamics and Control*, 68:1–16
- Banerjee, A., Niehaus, P., and Suri, T. (2019). Universal Basic Income in the Developing World. *Annual Review of Economics*, 11(1):959–983
- Daruich, D. and Fernández, R. (2020). Universal Basic Income: A Dynamic Assessment. Technical Report w27351, National Bureau of Economic Research, Cambridge, MA

- Luduvice, A. V. D. (2021). The Macroeconomic Effects of Universal Basic Income Programs. Working Paper (Federal Reserve Bank of Cleveland) 21-21
- Piketty, T. and Saez, E. (2013). Optimal Labor Income Taxation. In *Handbook of Public Economics*, volume 5, pages 391–474. Elsevier
- Heathcote, J., Storesletten, K., and Violante, G. L. (2017). Optimal Tax Progressivity: An Analytical Framework. *The Quarterly Journal of Economics*, 132(4):1693–1754

1.3. Overlapping Generations and Social Insurance

Capital overaccumulation and public pension systems. The overlapping generations framework. Defined benefit pension systems.

Application: Pension system reforms in Brazil.

- Chapter 3 in Obstfeld, M. and Rogoff, K. (1996). *Foundations of International Macroeconomics*. MIT press
- Auerbach, A. J. and Kotlikoff, L. J. (1987). *Dynamic Fiscal Policy*. Cambridge University Press
- Nishiyama, S. and Smetters, K. (2007). Does Social Security Privatization Produce Efficiency Gains? *The Quarterly Journal of Economics*, 122(4):1677–1719
- Nishiyama, S. and Smetters, K. (2014). Chapter 3 - Analyzing Fiscal Policies in a Heterogeneous-Agent Overlapping-Generations Economy. In Schmedders, K. and Judd, K. L., editors, *Handbook of Computational Economics*, volume 3, pages 117–160. Elsevier
- Kitao, S. (2014). Sustainable social security: Four options. *Review of Economic Dynamics*, 17(4):756–779
- McKiernan, K. (2021). Social Security reform in the presence of informality. *Review of Economic Dynamics*, 40:228–251

2. Monetary-Fiscal Interactions (2 lectures)

2.1. Classical Monetary-Fiscal Doctrines

Seignorage and the inflation tax. Cagan's hyperinflation model. Public debt and the unpleasant monetary arithmetic.

Application: Brazilian hyperinflation in the 1980s.

- Chapter 27 in Ljungqvist, L. and Sargent, T. J. (2018). *Recursive Macroeconomic Theory*. MIT press, 4 edition
- Chapter 8 in Obstfeld, M. and Rogoff, K. (1996). *Foundations of International Macroeconomics*. MIT press

- Cagan, P. (1956). The Monetary Dynamics of Hyperinflation. In *Studies in the Quantity Theory of Money*, pages 25–117. University of Chicago Press, milton friedman edition
- Sargent, T. J. and Wallace, N. (1981). Some Unpleasant Monetarist Arithmetic. *Federal Reserve Bank of Minneapolis Quarterly Review*, 5
- Rao Aiyagari, S. and Gertler, M. (1985). The backing of government bonds and monetarism. *Journal of Monetary Economics*, 16(1):19–44
- Fischer, S., Sahay, R., and Végh, C. A. (2002). Modern Hyper- and High Inflations. *Journal of Economic Literature*, 40(3):837–880

2.2. The Fiscal Theory of the Price Level

The basic fiscal theory of the price level model. Selection mechanisms of monetary models. Long-term debt. The observational equivalence theorem.

Application: The 2003 and 2015 inflationary episodes in Brazil.

- Chapters 1-5 and 22 in Cochrane, J. H. (2023). *The Fiscal Theory of the Price Level*. Princeton University Press
- Leeper, E. M. (1991). Equilibria under 'active' and 'passive' monetary and fiscal policies. *Journal of Monetary Economics*, 27(1):129–147
- Woodford, M. (1995). Price-level determinacy without control of a monetary aggregate. *Carnegie-Rochester Conference Series on Public Policy*, 43:1–46
- Loyo, E. (1999). Tight Money Paradox on the Loose: A Fiscalist Hyperinflation
- Sims, C. A. (2011). Stepping on a rake: The role of fiscal policy in the inflation of the 1970s. *European Economic Review*, 55(1):48–56

3. Fiscal Multipliers (1 lecture)

The Keynesian Cross. Fiscal multipliers in equilibrium. New-Keynesian models and the Zero Lower Bound. Marginal propensity to consume.

- Woodford, M. (2011). Simple Analytics of the Government Expenditure Multiplier. *American Economic Journal: Macroeconomics*, 3(1):1–35
- Christiano, L., Eichenbaum, M., and Rebelo, S. (2011). When Is the Government Spending Multiplier Large? *Journal of Political Economy*, 119(1):78–121
- Eggertsson, G. B. (2011). What Fiscal Policy Is Effective at Zero Interest Rates? *NBER Macroeconomics Annual*, 25(1):59–112
- Farhi, E. and Werning, I. (2016). Fiscal Multipliers. In *Handbook of Macroeconomics*, volume 2, pages 2417–2492. Elsevier

- Heathcote, J. (2005). Fiscal Policy with Heterogeneous Agents and Incomplete Markets. *The Review of Economic Studies*, 72(1):161–188
- Bhandari, A., Evans, D., Golosov, M., and Sargent, T. J. (2021). Inequality, Business Cycles, and Monetary-Fiscal Policy. *Econometrica*, 89(6):2559–2599
- Mountford, A. and Uhlig, H. (2009). What are the effects of fiscal policy shocks? *Journal of Applied Econometrics*, 24(6):960–992
- Romer, C. D. and Romer, D. H. (2010). The Macroeconomic Effects of Tax Changes: Estimates Based on a New Measure of Fiscal Shocks. *American Economic Review*, 100(3):763–801
- Serrato, J. C. S. and Wingender, P. (2016). Estimating Local Fiscal Multipliers. Technical Report w22425, National Bureau of Economic Research, Cambridge, MA
- Ramey, V. A. and Zubairy, S. (2018). Government Spending Multipliers in Good Times and in Bad: Evidence from US Historical Data. *Journal of Political Economy*, 126(2):850–901
- Nakamura, E. and Steinsson, J. (2014). Fiscal Stimulus in a Monetary Union: Evidence from US Regions. *American Economic Review*, 104(3):753–792
- Ramey, V. A. (2019). Ten Years After the Financial Crisis: What Have We Learned from the Renaissance in Fiscal Research? *Journal of Economic Perspectives*, 33(2):89–114

4. The Brazilian Fiscal Problem (2 lectures)

4.1. Public Sector Inefficiencies

- (2017). A fair adjustment : Efficiency and equity of public spending in Brazil : Volume 1 - Overview (English). Technical report, The World Bank Group, Washington, D.C

4.2. Project Presentation

Project seminar presentations.