Fiscal Multipliers vs. Monetary Transmission Mechanisms: A Comparative Decomposition of Macroeconomic Stabilization Efficacy Under Heterogeneous Debt Regimes

Oliver Smith
Professor
University of Warwick
Gibbet Hill Road, Coventry, CV4 7AL, United Kingdom

Casey Allen
Associate Professor
Humboldt-Universität zu Berlin
Unter den Linden 6, 10099 Berlin, Germany

Drew Martin
PhD
Seoul National University
1 Gwanak-ro, Gwanak-gu, Seoul, 08826, Republic of Korea

Riley Allen
D.Sc
Fundação Getulio Vargas — São Paulo School of Economics
Rua Itapeva, 474, Bela Vista, São Paulo, SP, 01332-000, Brazil

Abstract. This study conducts a rigorous comparative assessment of fiscal multiplier dynamics and monetary transmission channels as competing stabilization instruments across economies characterized by heterogeneous sovereign debt regimes. Employing a panel structural vector autoregression (PSVAR) framework augmented with time-varying parameters, we analyze quarterly macroeconomic data from 38 OECD and emerging market economies over the period 2000–2023. Our findings indicate that fiscal multipliers exhibit significant non-linearity contingent on debt-to-GDP thresholds, while monetary transmission efficacy is systematically attenuated in high-debt environments due to sovereign risk premia compression. Counterfactual simulations further demonstrate that coordinated policy sequencing outperforms independent instrument deployment by approximately 1.8 percentage points in output gap closure. These results carry substantive implications for post-pandemic fiscal consolidation strategies and central bank forward guidance frameworks.

Keywords: fiscal multipliers, monetary transmission mechanism, sovereign debt heterogeneity, panel structural VAR, macroeconomic stabilization policy, output gap dynamics, time-varying parameter models, fiscal-monetary policy coordination, sovereign risk premia

Introduction

The interplay between fiscal and monetary policy instruments has remained one of the most consequential and contested debates in applied macroeconomics, particularly in the aftermath of the global financial crisis of 2008–2009 and the unprecedented fiscal expansions triggered by the COVID-19 pandemic. As sovereign debt levels across both advanced and emerging market economies reached historically elevated thresholds — with the IMF (2024) reporting a global public debt-to-GDP ratio surpassing 93 percent — the question of which stabilization instrument commands superior macroeconomic efficacy has acquired urgent policy relevance. Simultaneously, a prolonged cycle of monetary tightening by major central banks between 2022 and 2024, including the U.S. Federal Reserve, the European Central Bank, and the Bank of England, has exposed structural limitations in the conventional transmission mechanism, particularly in economies burdened by elevated debt service obligations and constrained fiscal space.\n\nFiscal multiplier theory, rooted in Keynesian demand-management doctrine, posits that discretionary government expenditure generates amplified output responses under conditions of slack aggregate demand and binding monetary policy constraints, such as the zero lower bound. However, the empirical literature has yielded deeply heterogeneous multiplier estimates, ranging from below unity in open economies with high trade elasticity (Ilzetzki, Mendoza, and Végh, 2013) to values exceeding 1.5 during liquidity trap episodes (Christiano, Eichenbaum, and Rebelo, 2011). In parallel, monetary transmission research — encompassing the interest rate, credit, asset price, and exchange rate channels — has documented systematic attenuation of policy pass-through in environments characterized by non-performing loan accumulation, bank capital constraints, and sovereign-bank feedback loops.\n\nDespite a voluminous body of literature treating each instrument in relative isolation, comparative decomposition frameworks that rigorously evaluate competing stabilization efficacies across structurally distinct debt regimes remain insufficiently developed. Existing cross-country studies frequently conflate regime heterogeneity with cyclical variation, thereby generating biased inference regarding instrument superiority. This paper addresses that gap by introducing a panel structural vector autoregression methodology with time-varying parameters, enabling the identification of state-dependent policy effectiveness across low-, moderate-, and high-debt regime classifications.\n\nThe remainder of this paper is organized as follows. Section 2 reviews the theoretical and empirical literature on fiscal multipliers and monetary transmission channels, identifying critical gaps in comparative cross-regime analysis. Section 3 details the econometric methodology, including the PSVAR specification, identification strategy, and regime classification criteria. Section 4 describes the dataset, covering 38 economies and spanning 2000–2023. Section 5 presents the main empirical results, including impulse response functions, variance decompositions, and counterfactual policy simulations. Section 6 discusses the policy implications for fiscal consolidation design and monetary forward guidance calibration. Section 7 concludes with directions for future research.\n\n

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