Heterogeneous Firm Responses to Targeted Capital Controls: Micro-Level Evidence from Vietnam's Foreign Exchange Restriction Episodes, 2012–2022

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Abstract. This paper examines the differential impact of targeted capital controls on firm-level investment behavior and financing constraints in Vietnam during successive foreign exchange restriction episodes from 2012 to 2022. Exploiting quasi-experimental variation in the State Bank of Vietnam's regulatory tightening cycles, we employ a stacked difference-in-differences estimator augmented with propensity score reweighting to identify heterogeneous treatment effects across firm size, export orientation, and foreign ownership strata. Drawing on a matched panel of 4,817 manufacturing firms from the Vietnam Enterprise Survey, we find that domestically owned small and medium enterprises experienced statistically significant reductions in fixed capital formation (–11.3%) and working capital liquidity ratios (–8.7%) relative to foreign-affiliated counterparts. These results are robust to alternative control windows and survive placebo falsification tests. Our findings carry substantive implications for the optimal design of macroprudential capital flow management tools in emerging open economies.

Keywords: capital controls, foreign exchange restrictions, firm-level investment, macroprudential policy, emerging market economies, difference-in-differences estimation, financing constraints, capital flow management, Vietnam manufacturing sector

Introduction

The governance of cross-border capital flows has re-emerged as one of the most contested and empirically consequential areas of international macroeconomics. Following the global financial crisis of 2008–2009 and the subsequent taper tantrum episodes of 2013 and 2015, a growing consensus within both academic and policy circles has acknowledged that unrestricted capital mobility can amplify macroeconomic volatility, distort domestic credit allocation, and undermine monetary policy transmission—particularly in economies with underdeveloped financial markets and shallow foreign exchange reserves. The International Monetary Fund's formal endorsement of capital flow management measures in its 2012 Institutional View, subsequently refined in 2022, has further legitimized targeted interventions as a second-best but operationally viable complement to conventional macroprudential frameworks. Yet despite this policy evolution, the microeconomic consequences of episodic capital controls—especially their heterogeneous transmission to the real economy through the balance sheets of individual firms—remain empirically underexplored. The preponderance of extant empirical literature on capital controls has been conducted at the aggregate or sectoral level, relying on country-level indices such as the Chinn-Ito openness measure or the Quinn-Toyoda capital account liberalization index. While informative regarding macroeconomic co-movements, these approaches are fundamentally ill-suited to detecting the distributional consequences of regulatory tightening across firms that differ systematically in ownership structure, access to offshore financing, and integration into global value chains. The lacuna is particularly acute in the context of rapidly industrializing Southeast Asian economies, where the simultaneous expansion of export-processing zones, rising foreign direct investment inflows, and persistent currency management objectives create a uniquely complex regulatory environment. Vietnam constitutes an analytically privileged setting for this investigation. Between 2012 and 2022, the State Bank of Vietnam enacted five discrete tightening cycles in its foreign exchange surrender requirements and short-term external borrowing caps, generating within-country temporal variation that approximates a series of staggered quasi-natural experiments. Crucially, the timing and intensity of these regulatory episodes were driven primarily by macrobalance considerations—reserve adequacy thresholds and current account dynamics—rather than by firm-specific performance trajectories, thereby satisfying the exogeneity conditions required for credible causal identification. This paper makes three primary contributions to the literature. First, it provides the first firm-panel evidence on the investment and liquidity responses to capital control episodes in Vietnam, exploiting a stacked difference-in-differences design that corrects for contamination bias inherent in canonical two-way fixed-effects estimators under staggered treatment adoption. Second, it documents systematic heterogeneity in treatment effects along the dimensions of firm size, foreign ownership, and export intensity, thereby informing a more nuanced understanding of which segments of the productive economy bear the greatest adjustment costs. Third, it contributes methodologically by integrating entropy-balancing reweighting into the stacked DiD framework to address residual covariate imbalance between treatment and control cohorts. The remainder of this paper is organized as follows. Section 2 reviews the theoretical and empirical literature on capital controls and firm financing. Section 3 describes the institutional context of Vietnamese foreign exchange regulation. Section 4 presents the data sources and variable construction. Section 5 details the econometric identification strategy. Section 6 reports and interprets the main empirical results. Section 7 subjects the findings to an extensive battery of robustness checks and heterogeneity analyses. Section 8 concludes with policy implications and directions for future research.

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