

**CAPITAL CONTROLS AS POLICY INSTRUMENTS FOR
MACROECONOMIC STABILIZATION IN EMERGING
MARKET ECONOMIES**

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**CAPITAL CONTROLS AS POLICY INSTRUMENTS FOR
MACROECONOMIC STABILIZATION IN EMERGING MARKET
ECONOMIES**

by

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Submitted

in fulfillment of the requirements of the degree of Doctor of Philosophy
to the



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March 2025

Certificate

This is to certify that the thesis titled “Capital Controls as Policy Instruments for Macroeconomic Stabilization in Emerging Market Economies”, being submitted by Ms. Richa Jain to the Indian Institute of Technology Delhi for the award of the degree of Doctor of Philosophy is a record of bonafide research work carried out by her. She has worked under my guidance and supervision and has fulfilled all the requirements for the submission of the thesis, which has attained the standard required for a Ph.D. degree of this institute. The results presented in this thesis have not been submitted in part or full to any other university or institution for any degree or diploma.

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Abstract

The aftermath of 2008-09 global financial crisis, together with the emerging market crisis of the 1990s and 2000s, has raised concerns among policy makers in Emerging Market Economies (EMEs) to deploy additional policy tools which aimed at preventing financial crisis, and thereby maintain financial and macroeconomic stability in EMEs. After the Global Financial Crisis, interest rates around the world fell to an all-time low, leading to substantial capital inflows in EMEs. As these flows can be reversed quickly, the macroeconomic foundations of EMEs are increasingly vulnerable to fluctuations in the global market conditions. In response to high volatility in capital flows, the leading international organizations and central banks have revived interest in the use of capital controls, where IMF itself adopted a more receptive institutional stance towards capital controls policies (IMF, 2012) to mitigate the systemic risks stemming from the international financial transactions. This thesis reviews the effectiveness of capital controls through three dimensions: evaluating their dynamic treatment effects to enhance the macroeconomic and financial stability in EMEs, analysing their role to increase the resilience of economies against global financial shocks, and estimating their cross-border spill-over effects. We study dynamic treatment effect of capital controls on macroeconomic and financial stability by using newly developed Difference-in-difference estimation (De Chaisemartin and D'Haultfoeuille, 2020; 2022). The results show that there is a substantial reduction in the volume of capital inflows and capital outflows if capital controls are imposed across specific asset category. Our analysis justifies the use of capital controls to reduce currency appreciation pressures, achieve monetary policy independence and reduce financial fragilities. Further, we find the effective role of capital inflow controls to reduce the sensitivity of domestic economies against global financial shocks, where economies with strict inflow controls are able to moderate the effects of global financial shocks (captured by VIX and US federal fund rates) on real GDP, housing prices and private credit. We also link the risk-taking channel of exchange rate to show that monetary policy responds countercyclically in strict inflow controls economies in response to fluctuations in VIX. Lastly, we find evidence of cross border spill-over effects of capital controls where capital controls in India and China create significant, though temporary spill-over effects in other economies mainly through capital inflows and exerting upward pressures on exchange rate. Further, we find that other economies respond to these spill-overs by using similar policy response i.e. tightening their inflow controls. This calls for necessary policy coordination among economies in the financial sector.

सार

2008-09 के वैश्विक वित्तीय संकट के बाद, 1990 और 2000 के दशक के उभरते बाजार संकट के साथ, उभरते बाजार अर्थव्यवस्थाओं (ईएमई) में नीति निर्माताओं के बीच अतिरिक्त नीति उपकरण तैनात करने की चिंता बढ़ गई है, जिसका उद्देश्य वित्तीय संकट को रोकना है, और इस तरह इसे बनाए रखना है। ईएमई में वित्तीय और व्यापक आर्थिक स्थिरता। वैश्विक वित्तीय संकट के बाद, दुनिया भर में ब्याज दरें अब तक के सबसे निचले स्तर पर गिर गईं, जिससे ईएमई में पर्याप्त पूंजी प्रवाह हुआ। चूंकि इन प्रवाहों को शीघ्रता से उलटा किया जा सकता है, ईएमई की व्यापक आर्थिक नींव वैश्विक बाजार स्थितियों में उतार-चढ़ाव के प्रति तेजी से कमजोर होती जा रही है। पूंजी प्रवाह में उच्च अस्थिरता के जवाब में, प्रमुख अंतरराष्ट्रीय संगठनों और केंद्रीय बैंकों ने पूंजी नियंत्रण के उपयोग में रुचि को पुनर्जीवित किया है, जहां आईएमएफ ने प्रणालीगत जोखिमों को कम करने के लिए पूंजी नियंत्रण नीतियों (आईएमएफ, 2012) के प्रति अधिक ग्रहणशील संस्थागत रुख अपनाया है। अंतरराष्ट्रीय वित्तीय लेनदेन से. यह थीसिस तीन आयामों के माध्यम से पूंजी नियंत्रण की प्रभावशीलता की समीक्षा करती है: ईएमई में व्यापक आर्थिक और वित्तीय स्थिरता को बढ़ाने के लिए उनके गतिशील उपचार प्रभावों का मूल्यांकन करना, वैश्विक वित्तीय झटके के खिलाफ अर्थव्यवस्थाओं की लचीलापन बढ़ाने के लिए उनकी भूमिका का विश्लेषण करना, और उनके सीमा पार स्पिल-ओवर प्रभावों का अनुमान लगाना। हम नव विकसित डिफरेंस-इन-डिफरेंस अनुमान (डी चाइज़मार्टिन और डी'हॉल्टफॉइल, 2020; 2022) का उपयोग करके व्यापक आर्थिक और वित्तीय स्थिरता पर पूंजी नियंत्रण के गतिशील उपचार प्रभाव का अध्ययन करते हैं। नतीजे बताते हैं कि यदि विशिष्ट परिसंपत्ति श्रेणी में पूंजी नियंत्रण लगाया जाता है तो पूंजी प्रवाह और पूंजी बहिर्वाह की मात्रा में काफी कमी आती है। हमारा विश्लेषण मुद्रा प्रशंसा दबाव को कम करने, मौद्रिक नीति स्वतंत्रता प्राप्त करने और वित्तीय कमजोरियों को कम करने के लिए पूंजी नियंत्रण के उपयोग को उचित ठहराता है। इसके अलावा, हम वैश्विक वित्तीय झटके के खिलाफ घरेलू अर्थव्यवस्थाओं की संवेदनशीलता को कम करने के लिए पूंजी प्रवाह नियंत्रण की प्रभावी भूमिका पाते हैं, जहां सख्त प्रवाह नियंत्रण वाली अर्थव्यवस्थाएं वैश्विक वित्तीय झटके (VIX और अमेरिकी संघीय निधि दरों द्वारा कैप्चर किए गए) के प्रभाव को कम करने में सक्षम हैं। वास्तविक सकल घरेलू उत्पाद, आवास की कीमतें और निजी ऋण। हम यह दिखाने के लिए विनिमय दर के जोखिम लेने वाले चैनल को भी जोड़ते हैं कि मौद्रिक नीति VIX में उतार-चढ़ाव के जवाब में सख्त प्रवाह नियंत्रण वाली अर्थव्यवस्थाओं में प्रतिचक्रीय रूप से प्रतिक्रिया करती है। अंत में, हमें पूंजी नियंत्रण के सीमा पार स्पिल-ओवर प्रभावों के प्रमाण मिलते हैं, जहां भारत और चीन में पूंजी नियंत्रण अन्य अर्थव्यवस्थाओं में महत्वपूर्ण, हालांकि अस्थायी स्पिल-ओवर प्रभाव पैदा करते हैं, जो मुख्य रूप से पूंजी प्रवाह और विनिमय

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Abbreviations

AIC	Akaike Information Criteria
AREAER	Annual Report on Exchange Arrangements and Exchange Restrictions
ATE	Average Treatment Effects
ATT	Average Treatment effect on the Treated
BIC	Bayesian Information Criteria
BIS	Bank of International Settlements
BOI	Bond Inflows
BOO	Bond Outflows
BOP	Balance Of Payments
CI	Confidence Interval
CPI	Consumer Price Index
DID	Difference-In-Difference
DII	Direct Investment Inflows
DIO	Direct Investment Outflows
EDA	Emerging and Developing Asia
EDE	Emerging and Developing Europe
EMEs	Emerging Market Economies
EQI	Equity Inflows
EQO	Equity Outflows
FC	Foreign Currency
FDI	Foreign Direct Investment
FEVD	Forecast Error Variance Decomposition
FRED	Federal Reserve Bank of St. Louis
FX	Foreign Exchange
GDP	Gross Domestic Product
GFC	Global Financial Cycle
GMM	General Method of Moments
HQIC	Hannan-Quinn Information Criteria
IFS	International Financial Statistics
IMF	International Monetary Fund
IRF	Impulse Response Function

LB	Lower Bound
LFC	Limits on Foreign Currency
LFX	Limits on Foreign Exchange
LP	Local Projection
MAIC	MMSC based Akaike Information Criteria
MBIC	MMSC based Bayesian Information Criteria
MHQIC	MMSC based Hannan-Quinn Information Criteria
MMSC	Moment and Model Selection Criteria
MPP	Macro Prudential Policies
OI	Other Investment
OII	Other Investment Inflows
OIO	Other Investment Outflows
PI	Portfolio Investment
PVAR	Panel Vector Auto Regressive
SE	Standard Error
SVAR	Structural Vector Auto Regressive
TWFE	Two Way Fixed Effect
UB	Upper Bound
US	United States
VAR	Panel Vector Auto Regressive
VIX	Chicago Board Options Exchange' Volatility Index
VMA	Vector Moving Average
WEO	World Economic Outlook