

A Service of



Leibniz-Informationszentrum Wirtschaft Leibniz Information Centre

Herrala, Risto

#### **Research Report**

Capital controls in an integrated world: A review of recent developments, policies and the academic debate

BOFIT Policy Brief, No. 9/2020

#### **Provided in Cooperation with:**

Bank of Finland, Helsinki

Suggested Citation: Herrala, Risto (2020): Capital controls in an integrated world: A review of recent developments, policies and the academic debate, BOFIT Policy Brief, No. 9/2020, Bank of Finland, Institute for Economies in Transition (BOFIT), Helsinki, https://nbn-resolving.de/urn:nbn:fi:bof-202008252281

This Version is available at: https://hdl.handle.net/10419/251696

#### Standard-Nutzungsbedingungen:

Die Dokumente auf EconStor dürfen zu eigenen wissenschaftlichen Zwecken und zum Privatgebrauch gespeichert und kopiert werden.

Sie dürfen die Dokumente nicht für öffentliche oder kommerzielle Zwecke vervielfältigen, öffentlich ausstellen, öffentlich zugänglich machen, vertreiben oder anderweitig nutzen.

Sofern die Verfasser die Dokumente unter Open-Content-Lizenzen (insbesondere CC-Lizenzen) zur Verfügung gestellt haben sollten, gelten abweichend von diesen Nutzungsbedingungen die in der dort genannten Lizenz gewährten Nutzungsrechte.

#### Terms of use:

Documents in EconStor may be saved and copied for your personal and scholarly purposes.

You are not to copy documents for public or commercial purposes, to exhibit the documents publicly, to make them publicly available on the internet, or to distribute or otherwise use the documents in public.

If the documents have been made available under an Open Content Licence (especially Creative Commons Licences), you may exercise further usage rights as specified in the indicated licence.



# BOFIT Policy Brief 2020 No. 9

Risto Herrala

Capital controls in an integrated world: A review of recent developments, policies and the academic debate



## BOFIT Policy Brief Editor-in-Chief Mikko Mäkinen

BOFIT Policy Brief 9/2020 25.8.2020

Risto Herrala

Capital controls in an integrated world: A review of recent developments, policies and the academic debate

ISSN 2342-205X (online)

Bank of Finland BOFIT – Institute for Economies in Transition

PO Box 160 FIN-00101 Helsinki

Phone: +358 9 183 2268

Email: bofit@bof.fi

Website: www.bofit.fi/en

The opinions expressed in this paper are those of the authors and do not necessarily reflect the views of the Bank of Finland.

# Contents

Abstract	3
Introduction and summary	
The status quo	4
How we got here	5
International coordination	8
The academic debate	10
Theory	10
Empirical findings	
The use of capital controls	11
The macroeconomic effects of capital controls	12
Capital controls and monetary policy	12
International spillovers of capital control policies	13
The liberalization process	13
Concluding remarks	
References	

## Risto Herrala

Capital controls in an integrated world: A review of recent developments, policies and the academic debate

## **Abstract**

With the exception of financial crisis episodes, financial openness has increased across countries in recent decades. With international agreements now cementing the relatively open capital accounts of developed economies, the focus of the debate on capital account liberalization has moved on to emerging market economies (EMEs). While capital account liberalization can be desirable in improving access to finance, recent findings indicate that capital controls may be useful in strengthening financial stability in EMEs and in securing monetary policy autonomy against volatility of international capital flows. Recent developments, policies, and the academic debate are considered in light of the gaps in our understanding of how to apply capital controls in combination with other policy instruments, as well as the uncertainty over how to liberalize the capital account while maintaining financial stability.

Keywords: capital account liberalization; financial opening; emerging economies

## Introduction and summary

Focusing on issues related to monetary policy, this paper provides a quick overview of the global development of capital account restrictions in recent decades, the policies of global institutions towards capital controls, and the recent academic debate.

With the exception of financial crisis episodes, financial openness has generally been on the increase. In the EU and other OECD countries, capital account openness is now cemented through various agreements (e.g. the EU treaty, OECD codes, and G20 Coherent Conclusions). Notably, IMF policy regarding capital account liberalization in emerging market economies (EMEs) has become more reserved.

Academic studies have not established clear benefits to EMEs from capital account opening. Recent studies have found that:

- Capital controls can be useful when EMEs seek to strengthen financial stability and monetary policy autonomy against volatility of international capital flows.
- International standards for capital control policies are warranted to guard against negative spillovers.
- Capital account liberalization in EMEs needs to be accompanied by institutional strengthening (e.g. central bank, financial supervision authority) that regulate the financial system.

Most importantly, we should recognize the many gaps in our understanding of how EMEs can best use capital controls along with other policy instruments as a shield against global financial volatility, as well as how to liberalize the capital account while maintaining financial stability. The current work of the IMF on an integrated policy framework aims at clarity on these issues (Basu et al., 2010; Adrian et al., 2020).

## The status quo

The terms *capital controls* and *capital account restrictions* refer to a myriad of regulations that govern cross-border capital flows. They apply to cross-border capital transactions such as securities and credit transactions, derivatives trading, and foreign direct investment. They may be taken to exclude restrictions on trade-related international payments, as well as repatriation and surrender requirements, which are usually classified as current account restrictions. The term *financial openness* indicates how tightly current and capital account transactions of financial nature are restricted.

All countries, including Finland, impose some restrictions on both the capital and the current account. In the Finnish case, these are mainly related to collection of statistics, fighting crime (money laundering and terrorism), upholding international sanctions, safeguarding the operation of financial institutions, and preserving of the special status of Åland<sup>1</sup>. Broadly similar restrictions are also applied in other EU countries where, notwithstanding exemptions of limited scope, capital movements are as a rule open.

<sup>&</sup>lt;sup>1</sup> Åland, a group of islands between Finland's mainland and Sweden, is an autonomous region in Finland.

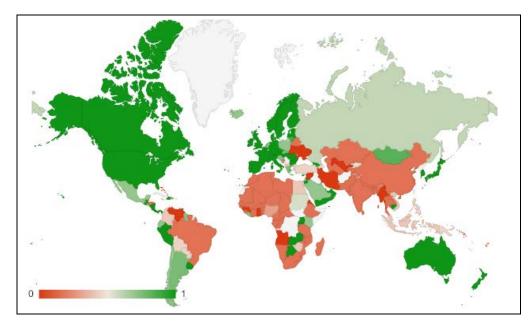


Chart 1. Financial openness in 2017 (green=open; red=closed)

Data source: Portland State University, based on Chinn and Ito (2006).

In contrast, financial openness in developing and emerging economies is a mixed bag. Some (e.g. Georgia, Argentina, and Mongolia) are relatively open, but most are not. The largest emerging economies (China, India, and Brazil) are relatively closed as measured on the Chinn-Ito index (Chinn and Ito, 2006), which is widely used to indicate the financial openness of countries.<sup>2</sup> The index is computed based on the legal characteristics of the regulation regime as stated in the IMF AREAER database.

# How we got here

Capital account liberalization progressed slowly in the developed world in the four decades following WWII (Chart 2). Exchange rates of industrialized countries were largely tied to US dollar in accordance with the Bretton Woods system. To safeguard their foreign exchange reserves and shield against external shocks, many countries imposed heavy restrictions on foreign trade and cross-border financial flows. Before the 1970s, most progress involved liberalization of the current account. Capital transactions, in contrast, remained heavily regulated (IMF, 1969).

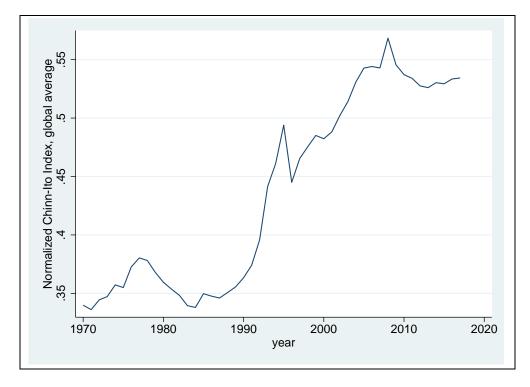
Capital account liberalization gathered momentum in the leading economies in the 1980s (Ghosh et al., 2018) reflecting, in part, EU integration. Since then, opening of the capital account has continued in other parts of the world, including the countries of Eastern Europe. The financial opening trend has only been bucked during global recessions. The financial opening sequence followed in most countries shifts from regulation of capital flows to regulation of financial institutions and intervention at financial markets by the monetary authorities.

<sup>&</sup>lt;sup>2</sup> See Erten (2019) for a review of the alternative measures.

By removing obstacles to international financial flows, the global trend towards financial opening has supported the development of the global financial market, which has grown markedly since the 1980s. The IMF (2012) estimates that growth in international gross capital flows increased from less than five percent in the 1980s and 1990s to a peak of around 20 percent of global GDP in 2007, just before the global financial crisis.<sup>3</sup>

Global financial opening brought with it an increase in the volatility of global capital flows. Worryingly, there is a clear association between capital flows and financial crises (Eichengreen, 2001). A case in point is Finland and the other Nordic countries, where capital account liberalization was followed by major banking crises in the early 1990s.

Chart 2. Global financial opening



Data source: Portland State University, based on Chinn and Ito (2006).

A current account deficit (surplus) is, by definition, financed by the net capital inflow (outflow), so opening of the capital account arguably facilitates current account imbalances. Indeed, the global financial opening of the 1980s and 1990s was followed by a sharp increase in current account imbalances around the world (Chart 3). This phase lasted until the start of the global financial crisis in 2008. Since then, there has been a sharp drop in current account imbalances towards earlier levels. At just above one percent of global GDP, net capital flows between countries presently stand at levels broadly similar to where they started in the early 1980s.

<sup>&</sup>lt;sup>3</sup> Global financial flows declined sharply during the global financial crisis. Since the holders of internationally issued market-based financial instruments are unknown, we make no attempt here to estimate gross international financial flows.

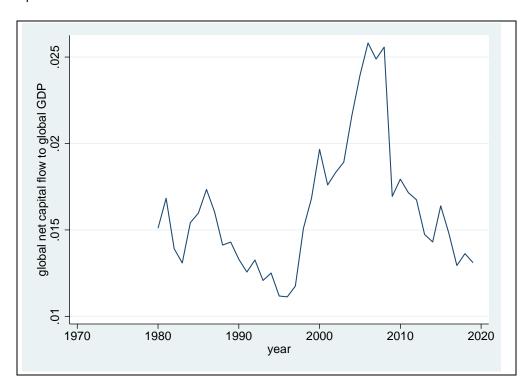


Chart 3. Net capital flows between countries

Notes: Net capital flows are computed as the sum of negative current account balances across countries. Data source: IMF WEO database.

Capital account deficits and surpluses seem to be very persistent, concentrating in specific countries. This has resulted in the buildup of significant negative and positive international investment positions for some countries. Figures from the IMF (2019) indicate that the net international investment position of the world's top debtor, the United States, is now close to - 50 % of US GDP (just under a tenth of global GDP). The net international investment position of the next largest borrowers, Spain and Brazil, are close to negative USD 1 trillion. The largest lenders are China (mainland China + Hong Kong), Japan, and Germany, with net investment positions at around 2% of global GDP.

## International coordination

The OECD Code of Liberalisation of Capital Movements was established in 1961 to guide the capital account liberalization process in industrialized countries. All 36 OECD countries currently adhere to the code. The code basically commits the member countries to capital account liberalization, as well as with non-OECD countries that are members of the IMF. Exemptions apply to public order and security, and economic and financial disturbances.

Under the EU treaty, free movement of capital and payments is a basic right. The treaty also grants free movement of capital with respect to third countries, unless they are specifically exempted. Other exemptions may include measures to prevent infringements of national law (namely for taxation and prudential supervision of financial services); procedures for the declaration of capital movements for administrative or statistical purposes; or measures justified on the grounds of public policy or public security.

While financial openness is cemented by international agreements for the EU and other OECD countries, this is not the case everywhere. The pros and cons of financial opening in developing and emerging economies have been under debate at the IMF for decades. From its inception in 1945, the IMF has been tasked under Article VIII of its *Articles of Agreement* to promote current account liberalization.<sup>4</sup> At the same time, Article VI recognizes the right of countries to regulate the capital account as long as such regulation does not restrict current transactions

With the growth of the global financial market, there was a push in the late 1990s to amend the Articles to enable the IMF to promote an orderly liberalization of capital movements. While this idea initially carried considerable support, agreement among Fund members was never reached. Many developing and emerging countries were unwilling to give up capital controls. The experience of the Asian economic crisis in the late 1990s (which largely spared financially isolated China) seemed to point to potential benefits of a relatively closed capital account (IMF, 2012).

The present policy of the IMF regarding capital account restrictions was formulated in 2012 (Box 1). At that time the Fund moved towards a more reserved view on capital account liberalization. In contrast to the previous "Do it right" policy, formulated in the late 1990s, the current policy seems to be themed "Capital account liberalization is not for everyone."

\_

<sup>&</sup>lt;sup>4</sup> Article VIII forbids restrictions on the current account, namely on the making of payments and transfers for current international transactions, discriminatory currency arrangements, or multiple currency practices, without IMF approval. IMF members are exempted from this requirement on a transitional basis by Article XIV.

#### Box 1. The IMF's assessment of capital flow liberalization

Capital flows can have substantial benefits for countries. They enhance efficiency, promote financial sector competitiveness, facilitate greater productive investment, and smooth consumption. At the same time, capital flows also carry risks, which can be magnified by gaps in a country's financial and institutional infrastructure.

Capital flow liberalization is generally more beneficial and less risky when countries have reached certain levels (or surpassed certain thresholds) of financial and institutional development. In turn, liberalization can spur financial and institutional development.

Liberalization needs to be well planned, timed, and sequenced in order to ensure that its benefits outweigh the costs, as it may have significant domestic and multilateral effects.

Full liberalization is not an appropriate goal for all countries at all times, but countries with extensive and long-standing measures to limit capital flows are likely to benefit from further liberalization in an orderly manner.

Rapid capital inflow surges or disruptive outflows can create policy challenges. Appropriate policy responses comprise a range of measures, and involve countries that are recipients of capital flows and those from which flows originate. For countries that must manage the macroeconomic and financial stability risks associated with inflow surges or disruptive outflows, macroeconomic policy can play a key role. Focus should be devoted to appropriate monetary, fiscal, and exchange-rate management, as well as development of financial supervision and regulatory capacity and strengthening of institutions.

Capital flow management measures can also be useful in some situations. They should not, however, become substitutes for warranted macroeconomic adjustments.

Policymakers in all countries, including countries that generate large capital flows, should take into account how their policies may affect global economic and financial stability. Cross-border coordination of policies would help to mitigate the riskiness of capital flows.

The IMF is well-placed to provide relevant advice and assessments to its members in close cooperation with country authorities and other international organizations.

Source: IMF (2012). The liberalization and management of capital flows: An institutional view.

Capital account restrictions have also been discussed by the G20, which adopted the G20 Coherent Conclusions in 2011 (IRC, 2016). The conclusions are broad principles on how to deal with large capital flows. In broad terms, they posit that countries can resort to capital movement restrictions, provided that these measures are not used as a substitute for macro-policies. Restrictions can be used to address financial systemic risks when there is limited space for other policies considered less distortive, when it takes time for these policies to be effective, or both. Capital account restrictions should be part of a comprehensive policy package, including appropriate monetary, exchange rate, foreign reserve management and prudential policies. The Coherent Conclusions also require transparency and proper communication of capital account restrictions. They should target specific risks and be regularly reviewed by domestic authorities.

## The academic debate

## Theory

The promise of capital account liberalization, inherent in the welfare theorems in economics, is the efficiency of market based allocations: unhinged by capital controls, global capital may be put to best use. From the perspective of an individual country, removal of capital controls may therefore improve access to finance and/or increase the returns to saving. By enabling financing of current account deficits from foreign sources, it may provide insurance against volatility of domestic incomes.

Capital account liberalization may also function as a signal (Bertolini and Drazen, 1996). Removal of capital account restrictions can be informative about the authorities' belief in the strength of the national economy. By exposing countries' economic policies to the scrutiny of global investors, opening of the capital account can commit policymakers towards financially sound policies, thereby mitigating investor risk.

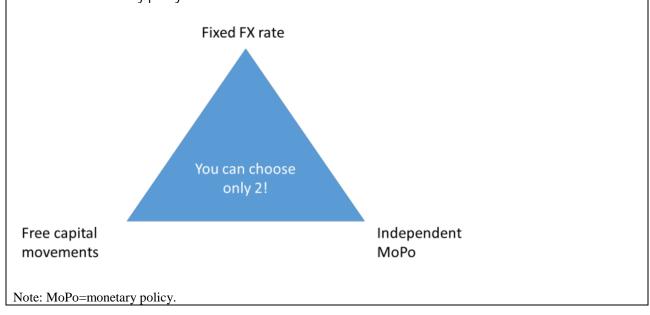
However, previous studies also underscore that capital account liberalization comes with significant challenges (Erten et al., 2019). The legacy of an inefficient banking system may expose a liberalizing country to significant financial instability. Moreover, the promise of the efficient outcome under the welfare theorems is only realized under ideal conditions regarding behavior. If private agents fail to properly appreciate all the consequences of their actions, and/or if the institutional base is weak, opening of the capital account may exacerbate economic cycles and generate financial instability.

Capital controls can strengthen the potency of macro policies to steer the economy (Box 2). The flip side of capital account restrictions is that they may transfer the problems to other countries through negative spillover effects.

#### Box 2. The monetary policy trilemma

The trilemma theoretical hypothesis (Mundell, 1963; Fleming, 1962, see Chart 4) says that the central bank in a financially open country can pursue either exchange-rate (FX) stability or something else (such as inflation targeting), but not both. The arbitrage between domestic and foreign financial markets needs to be stopped by capital controls to allow the central bank to simultaneously pursue a fixed exchange rate and use the interest rate as instrument to other ends. While there is no conclusive proof that the trilemma strictly holds (Bleaney et al., 2013), monetary policy regimes that attempt to ignore it have been seen as less than convincing. Russia's exchange rate regime prior 2015, for example, provides good insights into this issue (see Korhonen and Nuutilainen, 2017). Many countries, such as China, impose capital account restrictions in part to strengthen simultaneous control over the FX rate and domestic financial conditions.

Chart 4. The monetary policy trilemma



## Empirical findings

The use of capital controls

In practice, capital control policies reflect a variety of aims by national authorities. Kose and Prasad (2019) itemize these aims as follows:

Reasons for imposing capital controls

- Shielding from risk related to capital flow fluctuations.
- Arresting outwards capital flows to shield the domestic banking system.
- Steering the composition of inward capital flows towards more stable types.

#### Reasons for liberalizing the capital account

- Providing a higher rate of return on people's savings in industrial countries and by increasing growth, employment opportunities, and living standards in developing countries.
- Insuring against volatility in domestic incomes.
- Signaling commitment to good policies.

Capital controls tend to be durable; that is, they are adjusted infrequently (Eichengreen and Rose, 2014; Gupta and Masetti, 2018). In recent years, there have typically been significantly more easing events than tightening events in emerging countries. Capital controls are changed more often with respect to domestic rather than international investors, and with respect to portfolio flows rather than FDI or flows related to the banking sector.

After surveying a large number of empirical studies, Magud et al. (2018) report that capital account restrictions may have positive effects, but they usually fail to achieve their intended purpose.

## The macroeconomic effects of capital controls

Based on their review of the literature, Ghosh et al. (2018) conclude that capital account liberalization can produce a short-term boost in economic growth. However, strong evidence of a positive long-term effect is lacking (Kose et al., 2009).

Capital control measures do not tend to significantly impact the total volume of capital flows (Erten et al., 2019). Instead, they shift the composition of capital flows from short-term towards long-term flows. There is also some evidence that they can help reduce real exchange-rate pressures in EMEs.

The literature provides evidence that a tightening of capital controls can reduce financial fragility indicators (Erten et al., 2019). Several studies have also documented that the countries that increased the restrictiveness of capital inflow controls prior to the global financial crisis exhibited more resilience during the crisis, and that countries that used capital controls prior to the post-crisis period experienced less overheating after the crisis.

## Capital controls and monetary policy

In an inspired study, Helene Rey (2015) finds a global financial cycle driven in part by monetary policy in the US, and, to a lesser extent, other developed economies. From this finding she concludes that in a world of free capital movements, domestic financial conditions and, by extension, monetary policy are largely driven by global capital flows even in countries that float their currency. In other words, she claims that instead of a monetary policy trilemma (see Box 2), countries face a dilemma, whereby capital controls are necessary to have any control over domestic monetary policy objectives such as inflation and economic growth.

Notwithstanding evidence to the contrary (Cerrutti et al., 2017), subsequent findings have broadly strengthened Rey's argument that global financial flows constrain monetary policy even in floating countries (Blanchard, 2016). However, the view that floaters lack any monetary policy independence in the absence of capital controls appears too strong. Obstfeld (2015) finds that floating countries enjoy significant autonomy over domestic interest rates, but that global capital flows may sharply worsen the monetary policy tradeoffs faced by open economies. Similar conclusions emerge from Obstfeld et al. (2017) based on a study of the reaction of domestic financial variables on global financial conditions.

## International spillovers of capital control policies

Recent research underscores the potential risk of abusing capital controls through "beggar thy neighbor" policies, thereby strengthening the case for international coordination. Offering China as a real-world example, Jeanne (2012) theorizes that countries can use capital controls to indirectly implement trade protectionism, and thereby circumvent their WTO commitments.

Korinek (2016) shows that international spillovers necessarily follow from capital account policies. Although there are not many empirical studies that focus on international spillovers from capital controls, some papers find significant spillover effects (Erten et al., 2019).

## The liberalization process

The mainstream view on how to liberalize the capital account is based more on common sense and experience rather than theory (Ghosh et al., 2018). The mainstream view holds that process starts with the liberalization of the current account, i.e. abolition of restrictions on trade and related payments. The reasoning is that capital account measures may come in handy when dealing with problems such as lack of competitiveness of domestic firms that only reveal themselves during the difficult current account liberalization process.

Capital account liberalization proceeds in broad terms from the more stable towards the more volatile asset groups. Thus, FDI inflows are first accompanied by policies that strengthen the real sector. Next comes liberalization of FDI outflows and long-term capital inflows. Finally, rules governing short-term financial inflows and outflows are relaxed.

According to the mainstream view, the liberalization process needs to be accompanied by strengthening of institutions such as the central bank and financial supervision to safeguard financial stability. Related evidence is provided by Ghosh et al. (2017), who reports that emerging countries can mitigate the effects of global financial flows by macro policies even in the absence of capital controls. While their analysis shows that changes in global financial conditions have an important bearing on crisis susceptibility, EMEs that allow the buildup of macroeconomic and financial vulnerabilities during boom times and that receive mostly debt flows are *significantly more likely* to see surges in capital outflows during a financial crisis.

The current IMF (2017) policy is that capital flow liberalization should be supported by broad efforts to strengthen prudential regulation and supervision, including macroprudential policy frameworks. The Fund views macroprudential frameworks as important in helping members harness the benefits of capital flows, while avoiding the pitfalls. Introducing macroprudential measures (MPMs) preemptively can increase the resilience of the financial system to aggregate shocks, including those arising from capital inflows, and can contain the build-up of systemic vulnerabilities over time. As long as buffers are in place, the relaxation of MPMs may help in countering financial stresses from outflows. The recent work on the integrated policy framework (Adrian et al., 2020; Basu et al., 2020) may yield insight on how MPMs interact with other policy instruments such as monetary policy.

# Concluding remarks

The tone of the long-standing debate on capital market liberalization has shifted in recent decades to greater scepticism about the benefits of market-based allocations. This attitude shift has been driven in part by practical experience regarding the considerable challenges of capital account liberalization, as well as the failure by academic studies to establish clear benefits from capital account opening sufficient to offset the risks.

The current status quo raises difficult questions about how countries should apply capital account restrictions successfully without harming others inadvertently or on purpose. Unhinged, capital controls can be used to implement beggar-thy-neighbor policies that undermine global economic institutions such as the WTO. The IMF's ongoing work regarding the integrated policy framework will hopefully shed light on this issue, thereby relieving some of tensions currently afflicting the global economy.

## References

Adrian T, Erceg C, Linde J, Zabczyk P, Zhou J (2020). "A quantitative model for the integrated policy framework", IMF Working Paper WP 20/122.

Basu, S., E. Boz, G. Gopinath, F. Roch, and F. Unsal (2020). "A conceptual model for the integrated policy framework," IMF Working Paper, WP 20/121.

Bertolini, L., and A. Drazen (1996). "Capital account liberalization as a signal," NBER Working Paper 5725.

Blanchard, O. (2016). "Currency wars, coordination, and capital controls," NBER Working Paper 22388.

Bleaney, N., H-A Lee, and T. Lloyd (2013). "Testing the trilemma: exchange rate regimes, capital mobility, and monetary independence," *Oxford Economic Papers*, 65(4), 876-897.

Chinn, M., and H. Ito (2006). "What Matters for Financial Development? Capital Controls, Institutions, and Interactions," *Journal of Development Economics*, 81(1), 163-192.

Eichengreen, B., and P. Gupta (2016). "Managing sudden stops," World Bank Policy Research Working Paper 7639.

Eichengreen, B., and J. Rose (2014). "Capital controls in the 21st century," *Journal of International Money and Finance*, 48, 1-16.

Eichengreen, B. (2001). "Capital account liberalization: What do cross-country studies tell us?" World Bank Economic Review, 15(3), 341-365.

Erten, B., A. Korinek, and J. Ocampo (2019). "Capital controls theory and evidence," NBER Working Paper 26447.

Fernández, A., M. Klein, A. Rebucci, M. Schindler, and M. Uribe (2016). "Capital control measures: A new dataset," NBER Working Paper 20970.

Fleming, J. (1962). "Domestic financial policies under fixed and floating exchange rates," *IMF Staff Papers*, 9, 369-379.

Forbes, K., M. Fratzscher, T. Kostka, and R. Straub (2016). Bubble thy neighbour: Portfolio effects and externalities from capital controls," *Journal of International Economics*, 99, 85-104.

Cerrutti, E., S. Claessens, and A. Rose (2017). "How important is the global financial cycle?" NBER Working Paper 23699.

Cheung, Y.-W., and R. Herrala (2014). "China's capital controls: through the prism of covered interest parities," *Pacific Economic Review*, 9(1), 112-134.

Ghosh, A., J. Ostry, and M. Qureshi (2018). *Taming the tide of capital flows: A policy guide*, MIT Press Books, The MIT Press, Cambridge, MA.

Ghosh, A., J. Ostry, and M. Qureshi (2017). "When do capital account surges end in tears?" *American Economic Review*, 106 (5), 581-585.

Gupta, P., and O. Masetti (2018). "Capital account liberalization and controls: Structural or cyclical policy tools?" Published on World Bank "Let's talk development" <u>blog</u>.

IMF (1969). *The International Monetary Fund 1945–1965*, Vol II. International Monetary Fund, Washington, DC.

IMF (2012). *The liberalization and management of capital flows: An institutional view.* International Monetary Fund, Washington, DC.

IMF (2017). "Increasing Resilience to Large and Volatile Capital Flows –The Role of Macroprudential Policies," IMF Policy Papers, International Monetary Fund, Washington, DC.

IMF (2019). External sector report, July 2019: The dynamics of external adjustment. External Sector Report Series, International Monetary Fund, Washington, DC.

IRC Task Force on IMF Issues (2016). "Dealing with large and volatile capital flows and the role of the IMF," ECB Occasional Paper No. 180.

Jeanne, O. (2012). "Capital account policies and the real exchange rate," NBER Working Paper 18404.

Korhonen, I., and R. Nuutilainen (2017). "Breaking monetary policy rules in Russia," *Russian Journal of Economics*, 3(4), 366-378.

Korinek, A. (2016). "Currency wars and efficient spillovers," NBER Working Paper 23004.

Kose, A., E. Prasad, K. Rogoff, and S. Wei (2009). "Financial globalization: A reappraisal," *IMF Staff Papers*, 56(1), 8-62.

Kose, A., and E. Prasad (2020). "Capital accounts: Liberalize or not?" *IMF Finance & Development*, February 2020 update available here, article originally in June 2018 issue.

Mundell, R. (1963). "Capital mobility and stabilization policy under fixed and flexible exchange rates," *Canadian Journal of Economics and Political Science*, 45, 475-485.

OECD (2019). Code of liberalisation of capital movements. <a href="http://www.oecd.org/investment/codes.html">http://www.oecd.org/investment/codes.html</a>.

Obstfeld, M. (2015). "Trilemmas and trade-offs: Living with financial globalization," BIS Working Paper 480.

Obstfeld, M., Ostry, J., and Qureshi, M. (2017). "A tie that binds: Revisiting the trilemma in emerging economies," IMF Working Paper WP/17/130.

Rey, H. (2015). "Dilemma not trilemma: The global financial cycle and monetary policy independence," NBER Working Paper 21162.

Tarkka, J. (1988). "Kahlitun rahan aika," in: Suvanto, A., and M. Honkapohja (eds.), *Raha, inflaatio ja talouspolitiikka*, Valtion painatuskeskus.

Vihriälä, V. (1997). "Banks and the Finnish credit cycle," Suomen Pankki E-sarja.

# **BOFIT Policy Brief**

## https://www.bofit.fi/fi/julkaisut/policy-brief/

Riku Niemi: The Eurasian Union - much potential, little results 2016 Andrei Yakovlev: What is Russia trying to defend? No 2 Andrei Yakovley, Lev Freinkman and Anton Zolotoy: Domestic and external factors in the development of Russia's economic No 3 think tanks sector No 4 Mikko Mäkinen: Nowcasting of Russian GDP growth No 5 likka Korhonen, Tuomas Forsberg, Vesa Korhonen ja Heli Simola: BOFIT Venäjä-tietoisku 2016 Heli Simola: Economic relations between Russia and China – Increasing inter-dependency? No 7 Ivan Lyubimov: Are educational reforms necessarily growth-enhancing? Weak institutions as the cause of policy failure No 8 Laura Solanko: Opening up or closing the door for foreign trade – Russia and China compared Heli Simola ja Vesa Korhonen: Arktisen alueen taloudellinen merkitys Venäjälle Masaaki Kuboniwa: Estimating GDP and foreign rents of the oil and gas sector in the USSR then and Russia now No 10 Masaaki Kuboniwa: Considerations on new Rosstat data on the contribution of Russia's military goods sector to GDP growth in No 11 recent years 2017 No 1 Jouko Rautava: Kiinassa talouspolitiikka ei pysy maan muutosten vauhdissa No 2 Heli Simola: China's growing role in global production boosted by strong competitiveness – evidence from international input-output No 3 Heli Simola ja Laura Solanko: Katsaus Venäjän öljy- ja kaasusektoriin No 4 Heli Simola: Chinese production chains rely increasingly on domestic services No 5 Heli Simola and Laura Solanko: Overview of Russia's oil and gas sector K.C. Fung, Nathalie Aminian, likka Korhonen and Keith Wong: The Chinese yuan: Influence of interest groups examined No 6 No 7 Päivi Määttä: Meeting the challenges of impact measurement Caroline Stern, Mikko Mäkinen and Zongxin Qian: FinTechs in China – with a special focus on peer to peer lending No 8 No 9 likka Korhonen and Riikka Nuutilainen: Breaking monetary policy rules in Russia No 10 Andrei Yakovlev, Lev Freinkman, Sergey Makarov and Victor Pogodaev: In response to external shocks: How advanced Russian regions react to changes in federal policies – Experience of Tatarstan Ivan Lyubimov and Maria Lysyuk: Schooling ain't learning in Russia either: High level of student employment as an indicator for slow 2018 No 1 human capital accumulation No 2 Jouko Rautava: Intian nopea kasvu ei vähennä reformien tarvetta No 3 Eeva Kerola: Hongkongin talous on vahvasti kytkeytynyt Manner-Kiinaan likka Korhonen, Heli Simola and Laura Solanko: Sanctions, counter-sanctions and Russia - Effects on economy, trade and finance Andrei Yakovlev, Lev Freinkman and Nina Ershova: Channels of dialogue between international businesses and national governments: The implications for domestic reforms and international relations in the case of Russia Helmut Wagner: Structural change, rebalancing, and the danger of a middle-income trap in China No 7 Wing Thye Woo: A U.S. perspective on China's external economic disputes in the past 40 years and in the coming 40 years Nigel Gould-Davies: Economic effects and political impacts: Assessing Western sanctions on Russia Jouko Rautava: Kiina ja Venäjä – eripariset talouskumppanukset No 10 Sergey Vlasov and Mariam Mamedli: Russia's pension system in the context of world experience and expected trends No 11 Riikka Nuutilainen: Juanin kansainvälistyminen ei etene suoraviivaisesti 2019 No 1 Mariya Hake and Alice Radzyner: Western Balkans: Growing economic ties with Turkey, Russia and China No 2 likka Korhonen: Sanctions and counter-sanctions – What are their economic effects in Russia and elsewhere? Carsten Sprenger and Srdjan Todorović: Corporate Governance of the Largest Russian Banks No 4 Heli Simola: Effects of external shocks on Russian economy No 1 Laura Solanko: From reforms to stagnation – 20 years of economic policies in Putin's Russia 2020 Riikka Nuutilainen and Jouko Rautava: Russia and the slowdown of the Chinese economy No 2 Le Xia: Lessons from China's past banking bailouts Heli Simola: CO2 emissions embodied in EU-China trade and carbon border tax Jouko Rautava: Protektionismi ja uudistusvastaisuus estävät Intian nousun keskeiseksi globaaliksi taloustoimijaksi No 5 Heli Simola and Laura Solanko: Domestic and global economic effects of corona containment measures - Russia in international comparison Heli Simola: Venäjän talous koronan kourissa No 7 Christian Alexander Belabed and Thomas Theobald: Why the Chinese recovery will slow – some lessons from sectoral data No 8

Risto Herrala: Capital controls in an integrated world: A review of recent developments, policies and the academic debate