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**ANALYSIS OF INTERNATIONAL CAPITAL FLOWS:
CHALLENGES AND PROSPECTS**

A.S. Nechaev (a)*, E.Yu. Tsaregorodtseva (b)

*Corresponding author

(a) Irkutsk National Research Technical University, Lermontov St, 83, Irkutsk, Russian Federation,
n-a-s@mail.ru, 89643595258

(b) Irkutsk State University, Lenin St, 3, Irkutsk, Russian Federation,
elenapopova86@mail.ru, 89086698304

Abstract

Researchers analyze various aspects of international capital flows. There are different methods and approaches to the analysis of international capital flows and description of their nature and processes. Many researchers attempt to identify relations between international capital flows and economic growth. Western, mainly American, economists succeeded in development of capital flow models. In Russian research, this approach is ill-defined which can have a negative impact on adaptation of the Russian economy to rapidly changing global processes. International capital flow control measures can be divided into administrative (direct) and market (indirect) ones. Besides, different economic tools are applied. The government exercises administrative control for limiting financial transfers by means of direct prohibitions. The indirect measures influence capital circulation through the cost system, currency rates, explicit and implicit taxation, price control methods which determine costs and scale of financial transactions. At the same time, to control short-term capital inflows, it is necessary to constantly apply various control methods due to their low efficiency (as counterparties of the financial market always find potential loopholes) which increases administrative expenditure. It is uncontroversial that foreign investment becomes more crucial for economic development of the country (Blackburn & Hung, 1998). Under the global economic integration and capital mobility increase, foreign investment can accelerate economic growth. The article analyzes various international capital flow control tools, identifies key problems and suggests solutions.

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1. Introduction

Under current economic conditions, various international capital flow control methods are applied. The most widespread methods are administrative (direct) and market (indirect) ones. Indirect control tools can effectively influence international capital flows.

For example, various currency exchange rates are applied for different types of transactions (current and capital) depending on market sectors. If in one sector (international trade and direct investment), transactions are not controlled, currency exchange transactions of residents and non-residents can be divided into current and capital operations of the balance of payments. This allows creating conditions for capital inflows and neutralizing overestimation of the currency exchange rate for current account transactions (De Vita & Luo, 2018).

Explicit taxation of capital flows by imposing taxes on owners of external financial assets decreases attractiveness of foreign assets for residents and internal assets for non-residents (different tax rates depend on types and terms of transactions).

Indirect taxation is applied in the form of unremunerated reserve liabilities or requirements - termless deposition of a part of monetary funds (in national or foreign currencies) equal to the investment in the internal market or net position in foreign currency which allows controlling capital inflows and outflows.

1.1. Auxiliary indirect control methods

Along with key indirect control methods, the following auxiliary ones can be applied: additional reserve contributions aimed to insure foreign investment; asymmetrical net FX position limitations (for long and short positions of residents and non-residents); high credit rating (for foreign borrowing deals).

The analysis of causes of the BOP crisis and possible macro-economic regulation methods is also of great interest.

For example, the account deficit (at an overvalued currency exchange rate, imports of goods and services exceeds exports) is determined by the following factors: disbalance of the national economic cycle and economic cycles of leading industrial countries; sharp changes in prices of main goods circulating in the international market; increasing demand for foreign goods and services due to internal expansion policies; significant public debt payments increase the probability of default and lead to capital flight; non-residents reduce the volumes of internal asset purchase due to the deteriorating economic situation in a country (Grochowski, Warschat, & Dasher, 2016).

1.2. Balance of payments (BOP) regulation methods

There are the following BOP adjustment methods: variation of the currency rate; restrictive money and credit policies involving unsterilized intervention for decreasing excessive internal demand; foreign capital inflow sterilization; capital flow limitation; tax and budget policy shift.

Exchange rate manipulations can change the ratio of internal and external prices of goods and services, harmonize the total demand and supply and eliminate the BOP deficit (Diamond, 1998).

However, devaluation policies in countries having fixed exchange rates can cause the fall of exchange rates, reduction of foreign investment and distrust in money and credit policies of the central bank. As an alternative, the latter can intervene in the foreign-exchange market: tightening money and credit

policies by decreasing the total demand, selling internal liabilities or forex reserves to reduce the volume of money.

A decrease in the volume of money can cause an increase in interest rates and fall of prices in the internal market which increases an unemployment level and financial system instability.

It is unreasonable to attempt to achieve three conflicting goals (exchange rate stability, capital mobility and money and credit independency) at the same time. Under fixed exchange rates, it can cause disbalance of external payments and capital flow speculations.

An increase in capital inflows contributes to the growth of real exchange rates due to increasing prices of national products, works and services. Under the flexible exchange rate, relative prices of national goods and services increase; under the fixed exchange rate, the capital inflow increases money supply and prices which will differ from external market prices. It can increase imports and decrease exports due to the loss of the competitive edge at the domestic level.

Capital exporters aim to derive revenues from investment in a foreign economy or gain other economic or political benefits. Among the factors of capital transfers are: inequality of capital accumulation in different countries and relative capital surplus in national markets; lack of opportunities for effective or profitable investment; customs barriers which block exports of goods (market penetration requires substitution of goods exports for capital exports); location of production facilities near sources of raw materials.

Capital importers can pursue economic (capital raising for development of industries and production facilities, development of natural resources, boosting of employment, creation of preconditions of economic growth) or political goals. Among the factors of capital importation are: opportunities for development of new production facilities, modernization and expansion of production of marketable products; implementation of world technologies; increase in jobs (Nechaev, Ognev, & Antipina, 2017).

2. Problem Statement

Among the causes of public restrictions on capital flows, one can mention an attempt to improve the economic prosperity of the country by eliminating financial market drawbacks, implementing political control measures, fixed exchange rates which decrease the market pressure on exchange rates; reducing inflation effects (lack of sterilization of unlimited investment) (Goldsmith, 1969).

Capital flow control methods can form a gap between internal and external financial markets which will force financial market participants to search for different loopholes.

2.1. International capital flow control implementation

There are two international capital flow control methods: direct (administrative) (direct prohibition on capital transactions and quantitative restrictions) and indirect (market) (decreasing capital flow attractiveness by increasing costs of capital transactions (double or multiple exchange rates, direct/indirect taxation of international financial flows)). Double or multiple exchange rates are applied to foreign currency transactions of residents and national currency transactions of non-residents in order to differentiate current and capital transactions (Torugsa & Arundel, 2017).

There are different forms of international capital flow taxation. For example, direct taxation involves imposing taxes on external financial transactions decreasing their attractiveness.

Indirect taxation involves using unremunerated reserve requirements by placing national or foreign currency monetary resources into deposits accounts of the Central bank proportionally to the capital inflow in foreign currencies.

3. Research Questions

The article aims to study short-term capital inflows and outflows.

3.1. Short-term capital inflow control

Short-term capital inflows are speculative and destabilizing as distinct from long-term ones which are closely connected with real sectors of the economy. Short-term capital inflow control is used for expanding the independency of money and credit policies which aim to reduce inflation levels and stabilize exchange rates. The following factors are important for reducing the volumes of capital flows: narrowing of the gap between interest rates, increase in the amount of sterilization operations; implementation of the system of flexible exchange rates; increase in bank control intensity.

Short-term capital inflows increase inflation processes in a country. In this case, the country can intensify control over prices and salaries, increase tax rates, freeze bank accounts or sequester financial assets. However, these measures cannot solve the issue of inflation. Inflation expectations can be heated by constantly growing needs for public funding which can encourage an increase in differences between national and international interest rates and contribute to acceleration of the capital inflow under rigid exchange rate control (Fanta & Makina, 2014). The efficiency of capital flow control can be limited when development of financial markets reduces costs of avoidance of these measures in comparison with incentives for this avoidance conditioned by differences in exchange rates. In the long run, government attempts to limit capital inflows can be unsuccessful as far as capital will search for new ways of penetration into the economy (Schymik, 2018).

Selection capital inflow control methods (unremunerated reserve requirements as a percentage of foreign loans) are used to restrict short-term capital inflows. However, some factors decrease URR efficiency: exclusion of trade loans out of URR boundaries; fast responses of agents optimizing their actions under the improving financial system; compulsion to follow the requirements.

The government can also limit short-term foreign loans and deposits of foreign banks in national currency, i.e.: disallow residents to sell short-term securities to non-residents; disallow banks to conclude bid-side and forward deals with non-residents; implement asymmetrical limits of net positions; force banks to place foreign banks' monetary funds into the central bank in national currency (Wu & Lee, 2018).

Short-term capital inflow control methods should be accompanied by changes in macro-economic policies and improvement of the financial system. The following measures can be taken: simultaneous and gradual implementation of money, credit and currency policies to avoid excessive and destabilizing effects of capital inflows; strengthening of prudential regulation and implementation of adequate money and credit policies (eliminating differences in interest rates and decreasing sterilization effects).

The following conclusions can be drawn from the analysis of capital inflow control: financial sector reformation is lagging behind capital flow liberalization; liberalization of short-term capital flows with a high level of internal interest rates and guarantees of exchange rates increase short-term liabilities of credit institutions; capital flow control cannot be an efficient alternative for fundamental policies; capital flow control methods prevent from using flexible exchange rates and indirect tools of money and credit policies (Cieřlik & Goczek, 2018)

3.2. Short-term capital outflow control

This method is applied to limit the pressure on the national currency which leads to depletion of external reserves and helps buy time for further more global actions of capital outflow neutralization. The upward move of interest rates applied by the Central Bank aimed to protect the exchange rate has a negative impact on the national economy and bank system.

Capital outflow control methods are used to limit the access of non-residents to national currency funds and eliminate speculation opportunities. The government can set obligatory unremunerated deposit requirements (in the amount of 100%) for national credit institutions aimed to stop speculations by increasing costs of bank transactions with non-residents (increase in short positions in national currency, national currency deposits and loans of non-residents, deposit requirements).

Control efficiency can be improved using the combination of capital flow and exchange control methods (Nguyen & Almodóvar, 2018)

To separate the offshore market from the internal one, a two-level exchange market can be created by forcing national banks to suspend transactions of non-residents who formed positions in the offshore market in national currency (using cash and forward sales, swap deals) with regard to prohibition on repatriation of revenues derived from selling of these assets in national currency allowing for conversion at a fixed (internal) exchange rate. Thus, the need for elimination of offshore national currency funds by means of limitations on national currency exports and imports arises.

Among the measures of extended control, there are suspensions of market exchange transaction licenses, daily currency limits for currency exchange offices; currency limits for export and import payments; call for repurchase of currency export revenues.

All these capital flow control tools are efficient only at first stages as far as a significant gap in offshore market profitability and national currency devaluation expectations can remain. It is necessary to remember that control methods should be accompanied by economic reformation measures to eliminate macroeconomic disbalance and improve the balance of payments. Control measures can cause damages to legal transactions (direct foreign investment and hedging transactions) and exchange markets.

At later stages, insignificant challenges can occur only in closed economies aimed to limit short-term capital inflows where direct investment is dominant. However, these measures can increase administrative costs and decrease resource distribution efficiency.

Reverse policies (rapid liberalization of capital flow control) in the absence of adequate macro-economic and financial measures can boost vulnerability to external and internal crisis phenomena. These policies can increase the exchange rate and cause the current BOP deficit, delayed external payments, dependency on short-term bank loans, currency expansion and inflation.

Adequate liberalization requires changes in administrative regulation and implementation of supporting policies aimed to expand the labor market flexibility, to increase the sizes of internal markets, etc.

4. Purpose of the Study

One of the least important research problems is analysis of capital account convertibility recommended by the Tarapore Committee.

4.1. Analysis of capital account convertibility recommended by the Tarapore Committee

- 1) decreasing the gross fiscal deficit to the GDP ratio by 3.5% ;
- 2) the average rate of inflation should vary between 3% to 5% ;
- 3) strengthening of the financial system which involves the following measures:
 - the level of net non-performing assets should be 5%;
 - reserve cash liquidity requirements should be 3%;
 - the cash reserve ratio for internal liabilities should correspond to the ratio for foreign and non-resident liabilities (cash reserve ratio for non-resident liabilities, including foreign bank loans, has to be higher);
 - improvement of risk management in financial institutes (market control, monitoring of inconsistency between exchange rates and maturity of loans, application of internal control methods, capital sufficiency for covering market risks, new methods and technologies);
 - improvement of prudential control methods (external monitoring, more rigid capital sufficiency requirements in comparison with the Basel minimum, more severe control of legitimacy of revenues and classification of assets);
 - increasing autonomy of public banks and financial institutions competing with foreign and private banks (however, privatization is not recommended);
 - strengthening of legal loan redemption and credit security mechanisms to prevent the probability of default;
- 4) implementation of a real exchange rate control tunnel (about $\pm 5\%$ of the estimation of neutral real exchange rates).
- 5) implementation of macro-economic policies corresponding to the current account deficit which can be covered by normal capital inflows (about 2% of GDP), trade policies and external financing policies to reduce the level of external debt payments from 25% to 20%.
- 6) supporting sufficient external reserves (at least, in the amount of six-month import volumes, legislative reserve requirements to the currency are not less than 40%).

5. Research Methods

Under the economic crisis, the regional bank system can manifest the structural weakness which requires reevaluation of regional credit risks. Capital outflows can go through different unlimited channels using differences in interest rates caused by swap limitations. These limitations on swaps with non-residents were used in many countries to reduce the amount of speculations. Interest rate protection during

speculative attacks causes high interest costs. If non-residents conclude currency swap deals with local banks, the central bank can limit these swaps or force them to use a higher forward discount.

Flows of offshore national currency funds can increase internal interest rates weakening economic activities and intensifying problems of the corporate and bank sectors.

A sharp increase in interest rates will be counterproductive for the speculative pressure.

These government measures can eliminate all potential channels for speculative national currency transactions. The measures can have no influence on direct foreign investment and: eliminate main channels of national currency transfers to foreign countries; require repatriation of the national currency transferred to foreign countries; block repatriation of portfolio investment of non-residents for 12 months; limit capital transfers of residents (Stosic, Mihic, Milutinovic, & Isljamovic, 2017).

Limitations on portfolio capital repatriation can be substituted for the decreasing capital export taxation scale (capital or resident portfolio investment profit taxes). Capital can be exported after the penalty for long-term withdrawal is paid. It contributes to long-term investment in real projects and limit short-term capital importation. Besides, it contributes to smooth capital outflows in comparison with mass outflows upon expiration of a one-year term (Nechaev, Antipina & Prokopyeva, 2014).

Potential loopholes can be eliminated using other methods: prohibition on national currency asset trading; notice of withdrawal of national currency notes.

5.1. Negative aspects of influence on international capital flow control

It is necessary to remember that all the capital control measures can buy time for more fundamental political reforms. These measures have some drawbacks: increasing costs of foreign funds; decreasing foreign investment due to significant administrative costs; decreasing amount of cash deals (spots, forwards, futures) due to difficulties of insurance and risk management processes).

Besides, the government can take the following capital outflow control measures: permit for taking foreign short loans (with a possible maturity period increase up to n-years); unremunerated deposit requirements for all foreign loans taken by banks and other residents (Haan, Pleninger, & Sturm, (2018).

5.2. Analysis of unremunerated deposit requirements for taking foreign loans by banks and other residents

Speculators are usually forced to build up a net short position in national currency. Opening unremunerated deposits in the Central bank can be used to prevent banks from building up short positions. Local banks can be forced to open unremunerated national currency deposits in the Central bank which are equal to 100% of: increases in long positions in foreign currency (next day transactions or spots); increases in national currency loans and deposits of non-residents; sales of national currency to non-residents for foreign currency (next-day transactions); increases in net sales of national currency to non-residents for foreign currency (next day transactions); increases in forward foreign currency transactions carried out by non-residents.

6. Findings

Except for the above described measures, there are ones associated with 100% reserve requirement for increases in national currency liabilities of local (national and foreign) banks and their departments, affiliated and parent companies. Increasing costs of transactions for national banks can limit capital inflows by increasing sensibility of these flows to the level of interest rates and speculative activities. These transactions can be used by non-residents to build up speculative positions in national currency.

6.1. Some aspects of international capital flow liberalization

Capital flow liberalization can increase capital flows and change their structure (from portfolio investment to credit transactions). Increasing investment in government securities can change the structure of portfolio investment. Increasing foreign investment in government securities can be encouraged by means of exemption of non-residents from interest and capital revenue taxes and government securities transfer taxes.

Penalties can be imposed on non-residents for national currency swaps by increasing their expenditures on financial resources used for speculations in the swap market. These transactions are expensive for non-residents as far as banks will take into account expenses in creation of required deposits (Afonso, Neves & Thompson, 2018).

These measures can immobilize short-term transactions; in particular, they can limit opportunities of non-residents – exporters and importers to hedge against exchange risks.

It is necessary to remember that national banks can place national currency into their foreign affiliate banks to overcome reserve requirements. Non-banking institutions can use offshore channels for local currency in response to implementation of deposit requirements for bank loans (e.g., through transfers of residents' deposits to departments of local banks or leads and lags).

6.2. Analysis of international practices of capital flow liberalization

Efficient liberalization of capital transactions assumes that macro-economic policies along with an efficient capitalized banking system with regard to foreign debt maturity period shifts can allow the economy to stand up to serious external shocks caused by capital outflows.

Governments have to improve money, credit, budgetary and fiscal policies.

Under the long deep macro-economic disbalance, rapid large-scale liberalization can increase vulnerability of the country to capital flows providing legal channels for capital flight. Therefore, only consistent macro-economic policies can eliminate the current economic disbalance.

Capital flow liberalization contributes to the growth of direct investment and boosts competition.

7. Conclusion

The following conclusions can be drawn from the analysis. Assessment of effects of international capital flows on the national economy is a crucial task for economists. According to some economists, foreign investment is significant for economic development of the country. Under the global economic integration and increasing capital mobility, foreign investment can easily penetrate into internal markets encouraging their development.

According to economists, direct foreign investment is an important component of investment. However, research on the influence of direct foreign investment on the receiving economy is controversial.

There is no doubt that direct foreign investment has a positive impact on economic development and the relation between their volume and economic indices is direct.

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