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**339.727**
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**339.9.02:339.727**
**(Original scientific paper)**

# INTERNATIONAL CAPITAL FLOWS MANAGEMENT MEASURES AMID THE CHANGING GLOBAL ENVIRONMENT

**Abstract:** Even though international capital flows bring significant direct and indirect economic benefits, in case of pronounced volatility, they may increase the risk of crises and adversely affect economic growth. Therefore, the policymakers are challenged to determine how to effectively harness the benefits while mitigating the risks associated with the international capital flows. This paper discusses several aspects related to managing international capital flows. We show how the approach of international financial institutions toward capital flows management measures has adapted to the changing global environment. We detail the current operational framework for capital flow management and report on the recent international practice with capital flow management. The analyzed data show that capital account openness has gradually increased, whereas, on the net, macroprudential policy has mostly been tightened. Eventually, we discuss the most recent recommendations regarding international capital flow management measures within the novel Integrated Policy Framework. In the future, further promotion and development of a consistent global approach toward managing international capital flows should remain one of the main objectives of international financial institutions.

**Keywords:** international capital flows, capital flow measures, macroprudential policy measures, integrated approach
**JEL classification:** F30, F38, F42

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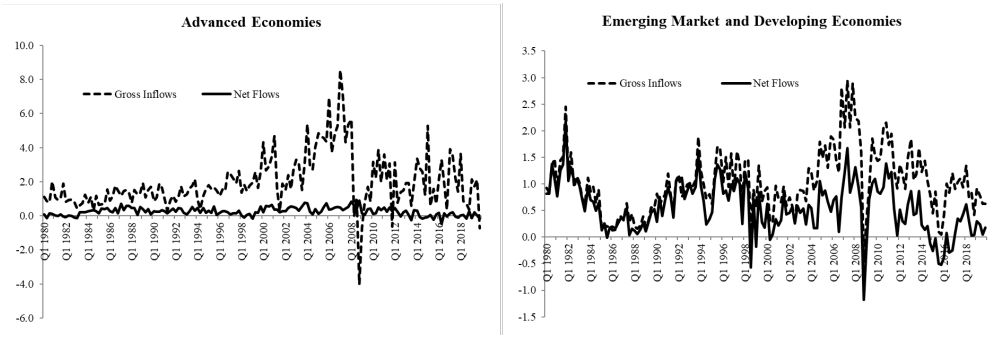
## Introduction

International capital flows are integral to the international monetary and financial system. They bring significant economic benefits, both direct and indirect. Nevertheless, when volatile, capital flows increase the risk of crises and may adversely affect economic growth. Capital surges may bring several challenges, such as price bubbles, inefficient allocation of resources and currency appreciation which deteriorates export competitiveness. Sudden stops, on the other hand, may lead to steep fall in asset prices, currency depreciation, inflation pressures and foreign debt repayment issues.

Regarding the longer-term developments of the international capital inflows, they registered a significant rise in the mid-1990s and up until the mid-2000s, in both advanced economies (AEs) and emerging and developing economies (EMDEs). Still, in the aftermath of the Global financial crisis (GFC) the capital inflows registered a steep decline in both country groups, followed by a reversal in 2009, and a decline in 2011 once again, resulting from the crisis in the peripheral euro area countries. Within this broad trend, there are some important differences between both country groups. In AEs, net capital flows are driven by shifts in both inflows and outflows, whereas in EMDEs net capital flows reflect mainly the gross capital inflows. Capital inflows in EMDEs mostly consist of foreign capital inflows in their economies, while residents' investments abroad are less common (Graph 1).

**Graph 1. International capital inflows in AEs and EMDEs (% of total nominal GDP in AEs and EMDEs)**




*Source: IMF, International Financial Statistics.*

One of the most important tasks for policymakers is to design an international capital flow management framework, which enables harnessing

the associated benefits and mitigating the inevitable risks. To manage capital flows, policymakers can reach for various policy measures. In case capital inflow surges or sudden stops pose risk to macroeconomic and financial stability, macroeconomic policy measures can be supplemented with financial supervision measures, and in some cases, even capital flow measures (CFMs).

This paper investigates several issues related to managing international capital flows, of relevance to policymakers. Section 1 offers a review of the evolution of the approach of international financial institutions toward capital flows management measures. Section 2 provides more details on the operational framework for capital flow management. Section 3 explains the recent experiences with capital flow management, whereas section 4 discusses the international capital flow management measures in the novel Integrated Policy Framework. The last section concludes.

## 1. EVOLUTION OF THE APPROACH OF INTERNATIONAL FINANCIAL INSTITUTIONS TOWARD CAPITAL FLOWS MANAGEMENT MEASURES

This section sheds light on the evolution of the approach toward capital flows management measures adopted by international financial institutions from a longer-term perspective.

Unlike international trade flows, international capital flows are not subject to a universal regulatory framework. Since the establishment of IMF in 1945, its mandate covered ensuring the proper functioning of the multilateral payments systems. Nevertheless, the mandate for capital flows regulations is somewhat vague. IMF has no legal power to make its recommendations binding and to prevent countries from managing this issue exclusively in accordance with its national economic priorities. From end-1980s and during the 1990s, IMF's surveillance missions increasingly monitored capital account-related policy measures. The main policy recommendations outlined the benefits of international financial integration in accordance with the traditional academic literature. They consist of: higher FDI-induced effectiveness, stronger discipline for macroeconomic policy implementation, risk diversification and allocation, consumption smoothing and financial development. In the following period, as a consequence of several crisis episodes (the Mexican crisis in 1995, the Asian crisis in 1997-1998, etc.), and the growing resistance from the member countries, the IMF was obliged to reconsider its approach and to adopt

a more prudent position on the institutional level. Still, further liberalization of the capital account remained the main long-term goal.

Regarding the capital flows measurement measures, IMF's position from the 1990s did not account for the market imperfections, limiting the capacity of the domestic financial system for capital flows management. Large capital inflows were considered to be common and in line with economic convergence for emerging market countries. Therefore, the prevailing recommendations from IMF surveillance missions consisted of contractionary measures against capital flow surges, in order to limit domestic demand and prevent exchange rate appreciation. In addition, the transition toward a more flexible exchange rate was recommended. Nevertheless, the issue of capital controls implementation remained disputable, since IMF was still against any kind of restrictions that may discriminate against non-residents. In particular, capital inflow controls were considered to be distortive and inefficient in long term, given the possibility of their evasion.

The GFC markedly shifted the international financial conditions, with capital increasingly flowing towards emerging market countries, predominantly in a form of debt inflows. As a response, part of the recipient countries introduced capital controls. Amid the changing global environment after the GFC, in 2011 and 2012 the IMF revised its operational framework through the inclusion of multilateral aspects of economic and regulatory policies affecting capital flows. The revised approach emphasized the role of push factors. In fact, the regulatory ambiguity and financial stability weaknesses in the recipient countries may encourage institutional investors to take excessive risk, leading to excessive and volatile capital flows, spilling over the financial instability risk to recipient countries. Therefore, the international financial organizations and the countries of the origin of the excessive capital inflows, which are the AEs, should make a coordinated effort in safeguarding financial regulation and supervision. These views are elaborated in a new official document (IMF, 2012), presenting the IMF's Institutional view (IV) on capital flows.

The IMF's IV from 2012 is further explained with the technical notes for implementation from 2013 and 2015, contributing to greater consistency in IMF's recommendations on these issues. The IV is viewed to be relevant in the global context (IMF, 2016, p.3).

## 2. OPERATIONAL FRAMEWORK FOR CAPITAL FLOW MANAGEMENT

The next section elaborates on the operational framework for capital flow management, the "natural mapping" approach, detailing the policies which are recommended in various economic scenarios.

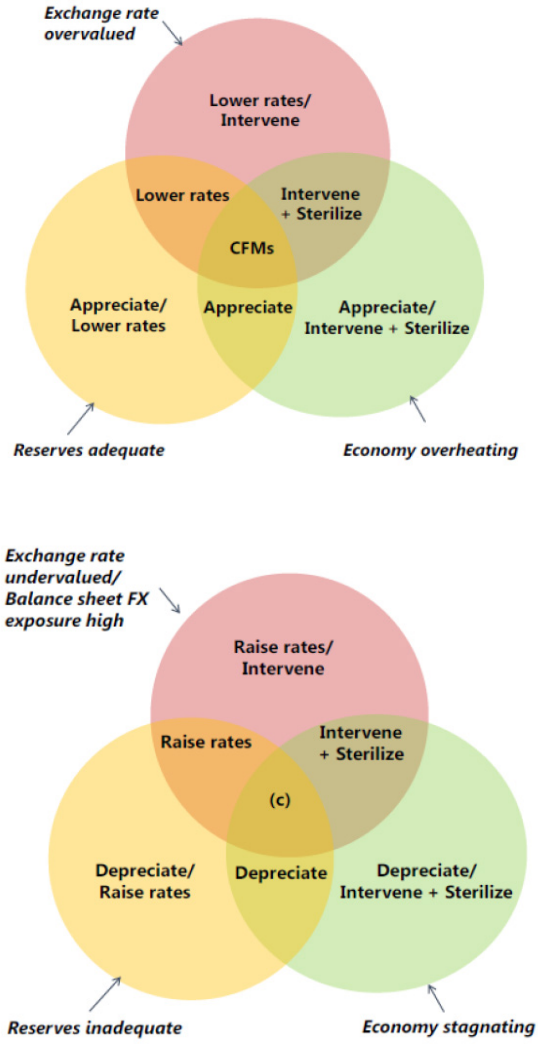
### 2.1. „Natural mapping"

The operational framework for capital flow management encompasses the following components (IMF, 2016, pp. 15-17):

- Macroeconomic policies:
  - monetary policy,
  - fiscal policy,
  - exchange rate policy,
  - Macroprudential policy and
  - CFMs.

The implementation of the various measures should follow a logical sequencing - "natural mapping" (Ghosh et al., 2017, pp. 16-17). Therefore, the monetary and fiscal policy can be used to manage inflationary pressures risks and overheating; provided that the domestic currency is not overvalued; foreign exchange interventions can limit potential appreciation; and macroprudential policy measures can prevent excessive credit growth and financial instability. Capital inflow measures, in case they are general, can support the aforementioned measures, primarily by limiting the entire capital inflows. Targeted CFMs can help to alleviate the structural weaknesses, in case of currency or maturity mismatches. Countries with active capital outflow measures may ease these restrictions to reduce net flows, thereby preventing overheating and inflationary pressures (Graph 2).

**Graph 2. Appropriate policy responses to capital inflow surges (left) and capital outflows (right)**




*Source: IMF (2016), "Capital Flows – Review of Experience with the Institutional View", Policy Paper Prepared by Staff of the IMF, p.17.*

Irrespective of the particular economic and financial sector challenges, countries should first exploit macroeconomic policies before adopting CFMs. Macroeconomic policies should not react against all international capital

flows, but only to the excessive inflows and outflows which may destabilize the domestic economy. Their objective is to safeguard the economy by limiting capital flows and enabling macroeconomic adaptation. Macroprudential policy measures should have precedence over CFMs since they prevent excessive inflows or outflows from even occurring. Also, they ensure that the countries will undertake globally consistent measures and would not use CFMs as a substitute for necessary macroeconomic reforms. Nevertheless, in spite of limiting the balance sheet vulnerabilities and excessive credit activity, macroprudential and CFMs inevitably lead to economic distortions. Consequently, there is no single ranking of the instruments according to their welfare effects, but a strategy that accounts for the potential risks and distortions should be chosen. Therefore, the instruments applied should be targeted against those particular risks (IMF, 2012, pp. 35-36).

### 2.2 Macroprudential policy measures

Although necessary, the macroeconomic policy measures may sometimes not be sufficient to overcome economic challenges. Volatile and crisis-inducing capital flows may be caused by financial market weaknesses, stemming from inadequate regulation and supervision. Therefore, by maintaining a functioning and adequately regulated banking system, two types of risks stemming from volatile capital flows can be evaded. Firstly, excessive indebtedness, credit activity and currency appreciation in case of a capital surge can be prevented. Secondly, sharp depreciation and crisis in case of sudden stops or flights can be prevented.

Macroprudential policy measures can bring two main contributions. Firstly, they strengthen the financial system's resilience amid capital stops. Namely, by creating capital buffers, the financial system is protected from the risk of a sudden drop in asset prices or from the sharp depreciation of the domestic currency. Secondly, macroprudential policy measures contain the accumulation of weaknesses amid periods of global financial expansion or capital surges. This is accomplished by mitigating the procyclicality between asset prices or exchange rate and credit activity, as well as by tackling over-indebtedness (ECB, 2016, pp. 20-23).

The macroprudential policy encompasses several types of instruments targeting particular issues, such as (IMF Institute for Capacity Development, 2018):

- Broad-based tools

- Sectoral tools
- Liquidity tools
- Structural tools.

The empirical evidence proves the effectiveness of macroprudential policies in increasing the resilience of the economy and mitigating procyclicality. Nevertheless, there is a risk of evasion of these measures, which can result in capital overflows despite the established macroprudential measures. Also, these measures are related to non-insignificant costs, such as costs for the adoption of these measures by the financial institutions, decreased efficiency of debtors and short-term costs regarding the decreased economic activity amid restrictive macroprudential measures (IMF, 2016).

### 2.3 Capital flow measures

In the IMF's IV, the IMF establishes the CFMs, which encompass all measures aimed at limiting capital account transactions. CFMs are defined more broadly than capital controls, encompassing: firstly, residency-based measures, which are measures affecting financial activity that discriminate by residency, and secondly, other measures that do not discriminate by residency but are still aimed at limiting capital flows (IMF, 2012, p. 20).

Considering that the capital flows provide significant advantages, as well as pronounced macroeconomic and financial stability risks when volatile, the IMF recommends that: firstly, capital flows should be primarily managed by macroeconomic policies, supported by robust financial supervision and stable institutions, secondly, in certain cases, CFMs should be applied to support macroeconomic adjustment and financial stability, and thirdly, CFMs should not be used as a substitute for the essential macroeconomic adjustments (IMF, 2012).

Regarding the preconditions for establishing CFMs, in its IV, the IMF recommends them to be temporary, transparent and non-discriminatory. Capital inflow measures should be targeted. Conversely, capital outflow measures must be comprehensive, to ensure their effectiveness and prevent evasion. Once they are established, their utility should be continually assessed against their costs. CFMs should be lifted when the capital flow pressures or the crisis are overcome, and macroeconomic policy space is reestablished.

## 3. CAPITAL FLOW MANAGEMENT IN PRACTICE

This section is focused on the experiences with capital flow management measures after 2012, for the countries with the highest or most volatile capital surges, as well as the countries faced with the most severe economic or financial crises.

The majority of the countries relied on macroeconomic policy measures when dealing with sudden stops and reversals, which is in line with IMF's Institutional view. The measures applied consisted of exchange rate flexibility, foreign exchange interventions and monetary policy accommodation while maintaining a countercyclical and sustainable fiscal policy. CFMs were used in case of crisis or when the crisis was imminent, as part of a comprehensive set of macroeconomic measures. The particular set of measures reflects the particular economic challenges. Many countries facing capital stops registered a negative output gap, an exchange rate that was overvalued or in line with the fundamentals, and an adequate level of foreign reserves. The measures undertaken can be classified into three groups: a small number of countries that depreciated their currency, without foreign exchange interventions or CFMs; a majority of countries that used the exchange rate and foreign exchange interventions to cope with external shocks, but without the use of CFMs; and countries which implemented capital outflow measures (IMF, 2016, pp. 18-23).

In countries where the domestic currency was not undervalued or the foreign exposure of their balance sheets was not large, the flexible exchange rate was the main mechanism for managing external shocks. The depreciation reflected the capital outflow pressures and enabled adjustment of the previously overvalued currencies (common among many emerging market countries).

Most countries applied foreign exchange interventions, amid an already adequate level of foreign reserves. These interventions were aimed at curbing excessive volatility and enabling an adequate market setting. Regarding the monetary policy, interest rate changes were combined with domestic currency depreciation and foreign exchange interventions. In many countries, the interest rates were raised, in spite of the negative output gap, in order to tackle the inflationary pressures amid depreciation (such as in several emerging market countries) or to tackle external financing pressures (the case of the Macedonian economy).

The fiscal policy was largely restrictive. Many countries faced capital stops and commodity prices drop, with already high accumulated public debt and limited countercyclical policy space. Therefore, fiscal policy was in some

cases targeted at external imbalances reduction and as a safeguard mechanism against external shocks, while in other cases it was targeted at budget expenditures reduction and fiscal consolidation.

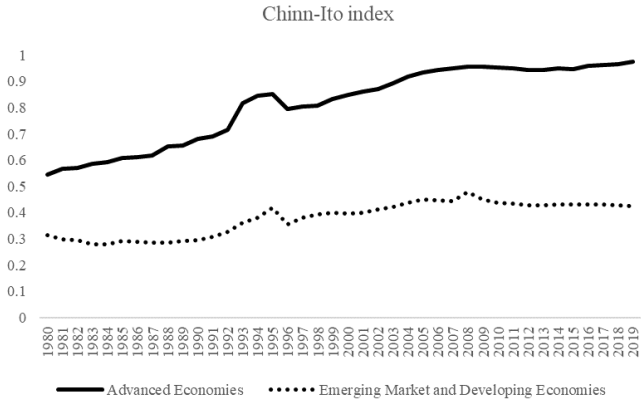
CFMs were used mainly in cases of ongoing or imminent crisis, which is in line with the official guidelines. That was the case with countries facing financial system issues, the balance of payment pressures, economic activity drop, current account deficit and public finances deterioration. Often, the CFMs were accompanied by restrictive monetary and fiscal policy, structural reforms and financial system reforms. Capital outflow measures were in line with the official recommendations. Most of them were comprehensive and non-discriminatory with regard to residence, as well as temporary, with a clear conviction of the governments to be lifted off, once the necessary macroeconomic and financial stability conditions were met (IMF, 2016, p. 21).

In countries facing significant capital inflows, macroeconomic policies were mostly applied, whereas capital inflow measures were rarely used. In particular, countries relied mostly on the flexible exchange rate, sometimes combined with foreign market interventions and monetary accommodation. Most countries allowed their currency to appreciate, remaining in accordance with the fundamentals and avoiding their overvaluation. In some cases, interest rate cuts occurred, whereas the fiscal policy remained neutral or accommodative.

Countries facing capital inflows also relied on macroprudential policies, to limit the systemic financial risk. Sometimes, macroprudential policies that also act as capital flow management measures were used, such as foreign currency borrowing limits. These measures were used in several instances: capital inflows created by the external indebtedness, excessive credit activity, liquidity and exchange rate risk and over-indebtedness. The combined use of several measures demonstrates that systemic risks stemming from capital flows may occur directly, as external borrowing by the corporate sector, or indirectly, through asset valuation and collateral effects. The most commonly used measures were total liabilities to capital ratio limits and debt to disposable income ratio (IMF, 2016).

The broad trends of capital account openness are captured with the Chinn-Ito index. This index is based on binary dummy variables about restrictions on cross-border financial transactions reported in the AREAER. The data show that capital account openness has gradually increased in the observed period. Still, the differences between country groups are quite large, with an almost fully opened capital account in AEs and still present capital controls in EMDEs (Graph 3).

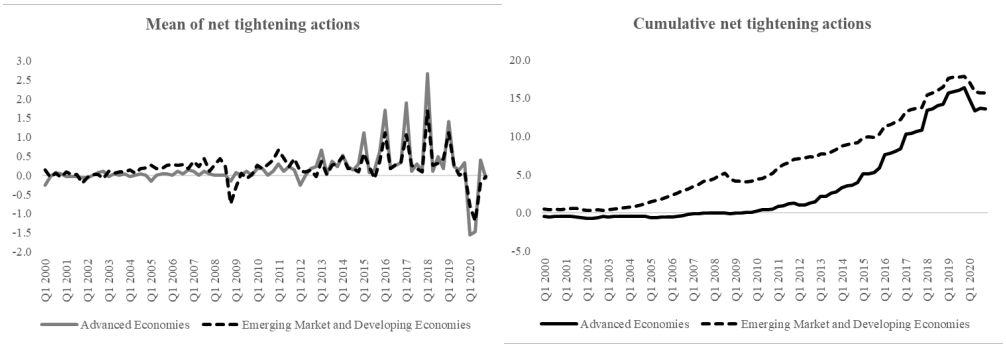
## Graph 3. Implementation of capital flow measures




Note: The Chinn-Ito index ranges from 0 to 1, where 0 implies a fully closed capital account and 1 fully open capital account.
*Source: Chinn and Ito, 2006, 2022 update.*

The use of MPMs is analyzed through the data from the Integrated Macroprudential Policy Database (iMaPP), based on IMF's Macroprudential Policy Survey cycle. The iMaPP-data is monthly and records macroprudential actions, i.e. tightening and easing. Over the period 2000-2020 AEs and EMDEs generally increased the use of MPMs. On the net, macroprudential policy has mostly been tightened, and after the GFC the trend towards tighter macroprudential policy has been clearly visible, especially in AEs and the major EMDEs (Graph 4).

## Graph 4. Implementation of macroprudential policy measures




Note: Figure 3 shows the cross-country average of the mean and cumulative net-tightening actions. Tightening actions take value 1 and easing actions value -1.
*Source: IMF, iMaPP database.*

## 4. INTERNATIONAL CAPITAL FLOW MANAGEMENT MEASURES IN THE NOVEL INTERNATIONAL POLICY FRAMEWORK

This segment presents the most recent reviews on the IV, informed by advances in research and the development of the Integrated Policy Framework (IPF). The IPF is the latest international policy framework initiative, which is aligned to the current global economic context, characterized by unflexible prices and imperfect financial markets. The IPF encompasses the interrelation between monetary policy, flexible exchange rate, macroprudential policy and CFMs in the small and open economies, accounting for the imperfections in the goods and financial markets.

The main feature of the novel IPF is that, when determining the appropriate policy mix, it accounts for the nature of shocks, as well as the characteristics of the particular economy. In terms of the particular shocks, the distinction is made between shocks to the real economy - productivity shocks or commodity prices shocks on one side, and financial shocks – to international interest rates, leverage, and capital flows, on the other side. In terms of the characteristics of the particular economy, it is accounted for various aspects, such as the share of primary commodities exports in total exports, currency misalignment in balances, leverage, foreign exchange market development, etc. The aim is to provide comprehensive diagnostics on the particular shocks and characteristics of countries in order to determine the most optimal policy mix. Importantly, the effects of monetary policy, capital flow management measures and foreign exchange market interventions are simultaneously assessed.

The latest reviews on the IV retain the main principles, in a sense that capital flows are viewed to be beneficial, and that CFMs can be useful sometimes but should not be treated as a substitute for a macroeconomic adjustment. Generally, certain macroeconomic and structural policy measures should be undertaken, whereas CFMs or macroprudential policy measures are rarely the only policy measure against capital flow risks. Therefore, an adequate policy mix should enable countries to exploit the benefits of capital flows while managing the associated macroeconomic and financial stability risks.

Two novelties in the latest review on the IV are related to the use of preemptive CFM/ macroprudential policy measures on inflows in some circumstances and establishing a special treatment for certain categories of measures. Firstly, it is proposed that under certain circumstances the inflow CFM/ macroprudential policy measures should be used preemptively, even in the absence

of a capital inflow surge. Such CFM/ macroprudential policy measures may be imposed on foreign debt inflows to address systemic financial risks stemming from exchange rate mismatches; in narrower cases, they may be imposed on local- currency debt inflows. Secondly, certain categories of measures should be subjected to the special treatment due to their nature, such as measures introduced for national or international security purposes.

## Conclusion

Driven by the objective to reap the benefits of international financial integration, there is a continued trend of the gradual rise of liberalization of capital flows. It is an ongoing challenge for the policymakers to determine how to effectively harness the benefits while mitigating the risks associated with the international capital flows, globally but also on an individual country level.

The capital flows are managed through a combination of several macroeconomic policies, supplemented by macroprudential policy measures and CFMs. Looking forward, the liberalization of the capital flows should focus on safeguarding financial stability, reflecting the important role of the macroprudential policy. Therefore, it would be useful to analyze how the capital flows affect the systemic financial stability, including the transmission channels, as well as the related institutional aspect of macroprudential policy implementation. The latest research focused on the CFMs shows that they are effective at mitigating the macroeconomic and financial stability vulnerabilities induced by capital flows. Nevertheless, it is necessary to further analyze the impact of CFMs on the amount and structure of international capital flows, the effects of evasion and the cross-country spillover effects.

Further promotion and development of a consistent global approach toward managing international capital flows remain one of the main objectives of international financial institutions.

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