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**GLOBAL FINANCIAL CRISIS: REASONS, EFFECTS AND
SOLUTIONS**

Globalization: Quo Vadis?

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List of Abbreviations

ASEAN - Association of Southeast Asian Nations

BC – Before Christ

CDO – Collateralized debt obligation

CDS – Credit Default Swap

EU – European Union

EUR – Euro

FDI – Foreign Direct Investment

GBP - British pound

GDP – Gross Domestic Product

GNP – Gross National Product

HP - Hewlett-Packard

IMF – International Monetary Fund

JPY - Japanese yen

MP_K – Marginal productivity of capital

NAFTA – North America Free Trade Agreement

RUB - Russian ruble

UIP – Uncovered Interest Rate Parity

USA – The United States of America

USD - US dollar

Abstract

The paper provides a short insight into the development of financial globalization. Both positive and negative aspects of it are stated. Moreover, the current financial crisis is discussed and reasons explained. However, the authors do not intend to judge the financial globalization as the phenomena, but argue about the possibilities to make it beneficial. Taking into account the current situation, potential solutions and areas to improve are explicitly revealed.

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1. Introduction

According to Mishkin (2007), globalization is the opening of domestic markets to foreign goods and direct investment, as well as to foreign capital and foreign financial institutions. Relating to the nowadays context of the global financial crisis we will focus on the investigation of financial globalization, which is the concept referring to rising global linkages through cross-border financial flows (Prasad et al, 2003). A closely related concept that of financial integration which remarks an individual country's linkages to international capital markets (Prasad et al, 2003). It is natural to expect that increasing financial globalization is at the same time rising financial integration. Consequently, these two concepts will be used interchangeably in this paper.

It is soundly proved that developed financial systems have a positive effect on economic growth (e.g. King and Levine, 1993; Levine, Loayza, and Beck, 2000; Honohan, 2004). It is also argued that globalization stimulates the development of financial sector and, in turn, spurs the advancement of economies. Yet, the topic of globalization and especially financial globalization has always been and still is highly controversial. This controversy could be explained by the benefits and problems it brings. On the one hand, financial globalization creates more competitive environment due to foreign institutions/capital; allows to diversify capital allocations; domestic firms become more efficient because of spillovers from foreign firms: they bring knowledge, managerial experience, and promote technology transfer; the increased availability of funds assures higher liquidity, lower cost of capital which, in turn, leads to more investment and economic growth. On the other hand, opening up financial markets and economy to foreign capital flows can lead to financial crisis. This occurs due to mismanagement of financial liberalization/globalization processes and severe fiscal imbalances, which further leads to losses of banks and capital crash because of problems created by the presence of asymmetric information: adverse selection and moral hazard. Further, contagion effects deepen problems in financial system and result in economic contractions.

After the history and current situation of financial globalization is explained, and the controversy of the topic is explicitly revealed, we do not intend to evaluate the aggregate positive and negative effects of financial globalization and provide the judgment whether globalization is beneficial or highly flawed. Rather, we strive to show that there are ways to make globalization work so as harmful side effects could be avoided. It is necessary to understand that the causality

usually runs from poor prudential regulation and supervision systems to financial crisis on the global scale, but not strictly from the globalization to financial crisis. Thus, the inferences for the future path of financial globalization with respect to the fields to be improved/changed are provided. The globalization of financial markets should be further advanced only in line with increasing regulations for safety, e.g. the introduction of the assessment of risk management, sufficient capital restrictions to banks, no regulatory forbearance. Basel II accord should be shaped in a way that it is effective not only theoretically, but also works in practice. Nowadays financial crisis shows that the regulatory framework is suboptimal and there is a need for more optimal solutions.

The paper is composed as follows. First of all, a short insight into the development of financial globalization is provided to make a reader familiar with the history of globalization, which serves as a background for interpreting the current situation. Section three presents salient advantages and disadvantages of globalization, which is the essence of economists' disagreement about the overall impact of financial interdependence on real economy. Section four depicts the current financial crisis. Further, the role of supervisors and regulators given turbulence in financial world is considered. Further, inferences into the future with respect to financial developments are pointed out in section six. Finally, section seven concludes the report.

2. An Insight into the History of Financial Globalization

Since the emergence of the first civilization six thousand years ago, people found a need to exchange goods in order to solve the most difficult problem of microeconomics: to satisfy unlimited *Homo sapiens* wants having scarce resources. The only one legally accepted payment for goods was barter trade. However, the barter trades did not perform the main functions of nowadays money: medium of exchange, store of value, and unit of account (Mankiw, 2007). During the existence of the first civilizations, the ancient temples served as the first banking entities. Various commodities: wheat, live stocks, gold performed the role of deposits. Moreover, in the beginning of the first millennium before Christ (BC), the first loan services are recorded in the ancient Babylon. Thus, the origin of the monetary system comes from the Babylon and the history of financial issues is as old as humankind.

2.1. The Age of Great Discoveries

Due to geographical and skill barriers soon differentiation between the economies of countries appeared. International trade became a very important source of economic welfare. However, after the Great Discoveries, not only the map of the world was widened, but the inflation of commodities stepped into the financial system: the value of gold, which served as the base for money, decreased sharply. The principle of neutrality of money is perpetual. In the long run money cannot stimulate gross domestic product (GDP) and induces an increase in prices only. On the other hand, in the short term it is very effective and while exploring the American gold mines, Spain quickly profited from the age of Great Discoveries.

2.2. Colonialism and Metropolitan States

After the increase in the welfare and the formation of stronger navies, imperialism became the main trend in the foreign affairs policy. As a result, ruling countries soon divided the world. It is a crucial moment in the financial globalization: the stronger nations enforced their own monetary and financial system in the colonies. Thus, the system was artificial and not in line with the natural economic conditions. Even worse, the dominant countries did not integrate the colonies into their own financial system, but used them only as a resource of raw materials, land or/and labor, choking the development. The main financial issues were controlled by the foreigners only and for the purposes of the metropolitan state. Financial globalization was very

significant as it covered the whole world; however, with the negative side effects: the development in one country was achieved in the account of a weaker colony.

2.3. XX Century

The World War I and the World War II disturbed the progress of financial globalization. The economy of the world collapsed, especially during the Great Depression which followed after the World War I. International income dropped dramatically as well as personal disposable income. The stock markets, starting with the Black Tuesday (October 29, 1929), crashed and the uncertainty prevented them from a quick recovery. The inability of central banks to use monetary policy was one of the main factors that the crisis was so severe. Money was fixed to the Gold Standard. It meant that all major currencies (US dollar (USD), British pound (GBP), Japanese yen (JPY), and Russian ruble (RUB)) were supported by Gold reserves. However, the scarcity of gold forced the countries to leave the standard (Great Britain was the first one to do so), so that the supply of money could be controlled. The global downturn and the World War II postponed the financial globalization and suspended an international trade as well as capital flows.

2.4. Steps towards Better World: Current Situation

However, after the World War II, many steps have been taken in order to create more integrated and more stable financial system. The credit money (fiat) replaced the representative money. In order to reconstruct the financial system of the world and encourage global monetary cooperation, the International Monetary Fund (IMF) was established in 1994. In addition to this, the Bretton-Woods system was adopted so that the currencies were fixed to the gold again. However, the system collapsed in 1971 and instead the gold, USD became the reserve currency for the countries that had entered the system. A bigger step to the European financial interdependence was taken after establishing the European Union (EU) and committing to introduce a united monetary system. It was done in 2002 and the Euro (EUR) began to circulate ensuring the macroeconomic stability and integrity. The period after the World War II is the prosperity of financial globalization: capital is flowing between countries in the form of foreign direct investment (FDI) or financial assets (see Table 1 below), economic unions reinforce the international trade and there are even suggestions to create a homogenous monetary system.

The world has become one big market of goods, services, and assets. Coming from real and tangible assets like barter trades, financial globalization ended up with a vast amount of

complicated financial instruments that are not confined by the country borders. This evolution leads to both: lots of profitable opportunities for the companies and the great responsibility for the governments and international institutions to make the market as transparent and safe as possible.

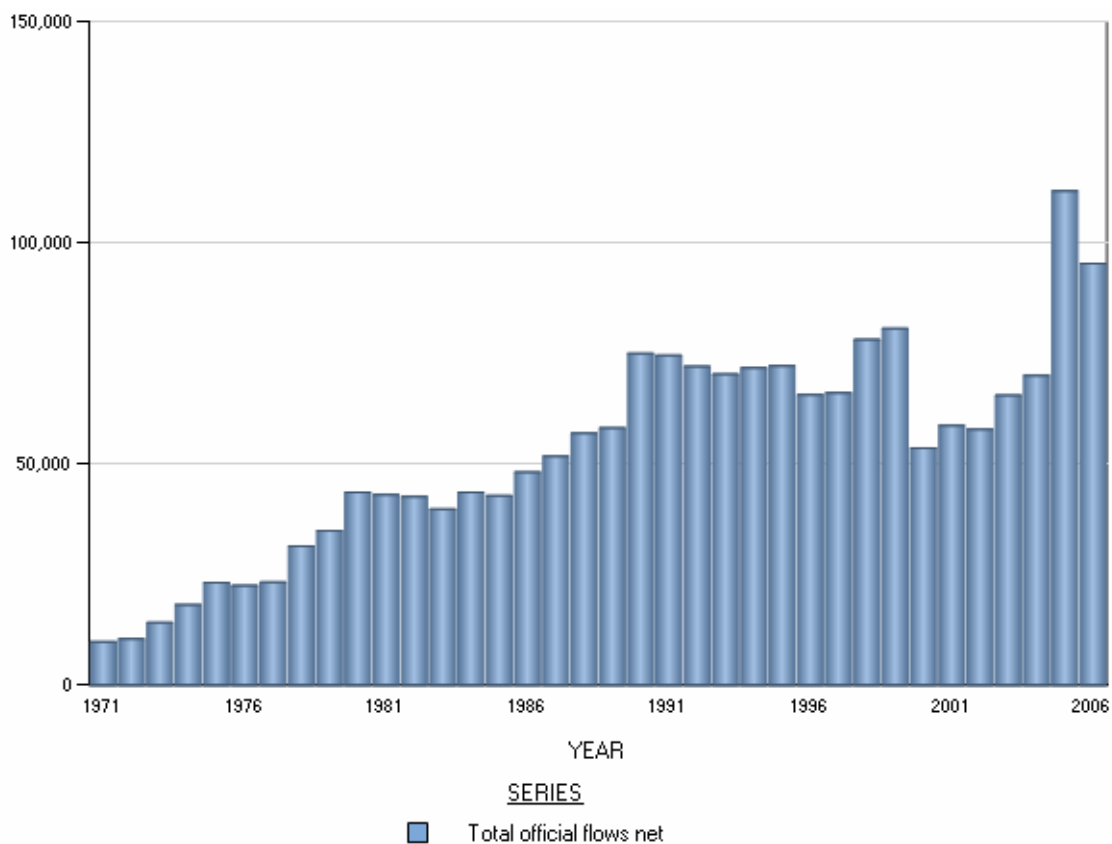


Table 1¹: Total official financial flows. Source: UNCTAD Handbook of Statistics (<http://stats.unctad.org/handbook/ReportFolders/ReportFolders.aspx>)

3. The Controversy of Financial Globalization: Advantages versus Disadvantages

As it was explicitly pointed out and could be seen in Table 1, the extents of financial globalization recently were huge, especially during the last decades. Naturally, this process attracted a lot attention from academics, economists, and other pundits. The issue became even more debatable when the current financial crisis hit the world. One side is pointing to globalization and blaming it for the current events. Yet, there are contra arguments claiming that financial globalization is beneficial and negative side effects occurring are just the outcome of

¹ 1971 is chosen as a turning point in financial globalization. Bretton-Woods system collapsed and substantial increase in financial flows was further observed.

mismanagement and ignorance of problems, which are essential to solve so that globalization would work for good. In this section we reveal the controversy behind the financial globalization by explicitly stating the main pluses and drawbacks of it.

3.1. The Advantages of Globalization

There is no doubt that the openness of the world makes the whole society better off. Looking from the macroeconomics point of view, the scarcity issue becomes less problematic with the presence of specialization and free world trade. The same rules apply to the financial capital. If investors had more options to choose from, the allocation of funds would be more efficient. The risk premium undertaken is always a great matter for investors; thus, diversification is a great benefit for investors. With the flows of capital in a form of tangible investment, more competitive environment appears, which usually follows the same path as the evolution - according to Darwin, only the strongest survive. So, firms are forced to perform productively. Finally, more capital means not only more diversification and competitiveness, but also more lending opportunities. It is easier for local banks and consumers to finance their needs via broader lending channels and more flexible interest rates. All these advantages are pointed out and elaborated upon below.

3.1.1. Development of Domestic Financial Sector

Financial globalization can help to promote the development in the domestic financial sector because of foreign ownership presence in local banks. First of all, the participation of foreign banks means more access to foreign financial markets and increased availability of funds. Secondly, it may improve regulation and supervision practices existing in the country because of the experience in own countries. Moreover, foreign investors may introduce financial instruments and techniques unprecedented previously in a local market (Prasad et al, 2003). Finally, it is natural to expect that competition among banks will increase. Domestic financial institutions will be forced to become more efficient to keep up with foreign banks and survive. This will lead to improved domestic financial services.

More developed financial sector may serve as a cushion against moderate economic shocks: while residents experience difficulties because of slowdowns in real economy, they can compensate this through borrowing. Thus, in this way domestic macroeconomic volatility could

be moderated. Yet, it is widely proven that this positive side effect is quantifiable only once the level of financial integration passes a particular threshold (Prasad et al, 2003).

In addition, indirect beneficial channels could be identified. Competitive pressure of the “discipline effect” of globalization will induce improvements in macroeconomic policies and regulating institutions (Prasad et al, 2003). This will be undertaken in order to attract more foreign investors who pay great attention to existing regulatory and supervision practice in the country to assure returns. Further, when a country removes restrictions on inward and outward capital flows, it indirectly signals that similar policies will be pursued in the future as well. This immediately attracts more capital into a country.

3.1.2. Diversification

Capital flows occur mainly due to the search of higher returns with tolerated risk premium. International companies search for bigger marginal capital productivity (MP_K); thus, stimulating investments in emerging markets. In addition to MP_K , the search of new markets with higher returns also allows for diversification. Krugman points out that when the trade barriers are eliminated, firms benefit from the economies of scale, tougher competition, and a wider market for products (The Economist, 2008). Economic integrities such as North America Free Trade Agreement (NAFTA), EU, Association of Southeast Asian Nations (ASEAN) and World Bank encourage free trade and control the existence of heavy protectionism. The flowing capital allows the country to benefit from the spillover effects: investments bring not only money. The capital attracts know-how information, managerial experience, and promotes technology development. Aggregate productivity in a country could be raised. Thus, FDI undertakes a role of a big stimulus for economic growth in a country. This fact could be illustrated taking Ireland as an example. Since joining EU in 1973 and adopting the Euro, Ireland was an attractive place for the investment from the point of view of USA: a stable currency was a great advantage as well as the insider position in one of the biggest USA trading partners. So, it comes as no surprise that starting from the 1980s capital inflows into Ireland exceeded that of any other country, with most capital coming from USA. International companies such as Dell, Apple Computer, Intel, and Hewlett-Packard (HP) moved their factories into the country, creating job positions for locals and adding up to USA Gross National Product (GNP). Fortunately, with the help of international capital, Ireland quickly caught up with the economically strongest countries of EU and nowadays is given as an example of a success story. The capital in search of

diversification benefits for both: an investor and the country where it is invested. For the former it brings higher returns and more optimal control of risks while the latter experiences the inflow of knowledge, technology, and enrichment of the overall economy.

3.1.3.Reduced Cost of Capital

As with financial globalization risks could be shared internationally, it means that some of the otherwise systematic risk will be diversified away. Since capital flows across countries will increase, domestic stock markets will become more liquid. This decreases equity risk premium and, in turn, the cost of capital is reduced. The possibility to diversify risks and to take advantage of the lower cost of raising capital for investment will induce firms to invest more, which, in turn, would result in higher domestic output.

3.1.4.Widening Liquidity Constraints

Moving capital into the country adds up not only to GDP directly, but also augments domestic savings allowing consuming or investing beyond ordinary budget constraints. The benefit of higher accessibility to loans is important for the whole population. If an individual can finance the purchase of a house or other expensive asset via mortgage/loan, he/she will probably do so. If firms face a lower opportunity cost of investing or broader channels of financing the purchases, firms are expected to invest more. Both participants of the economy would demand higher output and stimulate total GDP. The significance of easier lending to the economic development was emphasized by the Grameen Bank, the winner of Nobel Peace Prize in 2006. “Bank of Villages” issued micro-credits for local entrepreneurs in Bangladesh. The success of Grameen Bank lies in the fact that the bank did not require any collateral for issued loans and added only small interest rates. The pressure of collateral was an obstacle for local residents to start the business even with profitable ideas. Or if a potential borrower had collateral, the interest rates that accompanied the loan often exceeded the sum of all assets that the business generated. Starting from a small project in Bangladesh village, micro-credits are now issued in 43 countries. According to Grameen Bank, almost 50 million people moved from the actual poverty with the help of micro-credits (Fraser, 2007). The case of Grameen Bank shows how important it is to have an easy and user-friendly access to the credit system. Foreign capital allows people to avoid repressions and restrictions that domestic lenders may suggest. Increased accessibility to loans

gives not only the opportunity of intertemporal choice, but boosts investments and stimulates the economy in both short and long run.

3.2. *The Disadvantages of Globalization*

3.2.1. Financial Laissez-faire

When financial markets are open, banks are the first to take on huge risks and push lending capacities to its limits. This occurs because it is a good opportunity to reap huge profits. Yet, the existence of the government safety net or the presence of such institutions as IMF which could be seen as a lender of last resort works as an additional stimulus to undertake huge risks, which is known as a moral hazard problem. Simply, why should I care too much if there is someone who will save me in case business goes wrong? Residents also have reduced incentives to monitor the activities of banks as they know that their funds are insured. In addition, there is still a lack of experience in the field of risk management meaning that borrowers are not screened and monitored as neatly as it should be done to prevent defaults. Kaminsky and Reinhart (1999) points out that during the last 20 years 18 out of 26 crisis occurred over the first five years after the liberalization of financial system. This proves lacking competence in management areas and not adequate preparation for opening up borders for free capital flows.

Mishkin (1999) indicates that after the liberalization of the economy banks boost their lending by 15-30 percent a year (which is more than double increase comparing with closed financial markets regime). This highly increases credit risk associated with the losses stemming from defaulting borrowers. Looking from the bank's point of view, creditors are households, firms, and other banks. According to the rule of Uncovered Interest Parity (UIP), greater risk is reflected in the interest rates. The price of money is much higher for households than for firms. However, when the capital flows into the country and banks face excess liquidity, they become risk-takers as they issue loans even to the individuals with a very high probability of default. Banks keep throwing money as they bet that in a case of any problem the government will put a security shield for a borrower or a lender in the form of a bail-out. Sooner or later due to risk mismanagement losses on loans start to emerge. This results in asymmetric information problems, especially adverse selection, as banks can hardly differentiate between good and bad risks now. This, in turn, leads to decreased lending to the economy known as credit crunch. Even worse, this may contaminate into the whole banking sector as people will become suspicious

about all the banks and multiple, simultaneous failures of financial institutions can start, which, sooner or later, would lead to economic contraction. Thus, bets of the banks that they will be saved come true in the form of lightening the pockets of tax-payers as we can observe in the presence of the current financial crisis.

Financial liberalization gives an opportunity for banks and individuals to extend their consumption and investment possibilities using broader channels of financing. However, in most cases this potential is exaggerated and banks overestimate the risk that they take. “Invisible hand” gives both profitable and risky opportunities for the players of the liberalized market. Most importantly, it gives great responsibilities, which are often ignored or abandoned halfway.

3.2.2. Fiscal Imbalances

Financial globalization reveals the shortage of responsibility regarding banks. Moreover, it reveals governments’ incompetence as well. Financial globalization is likely to aggravate the problem of over borrowing as governments may now have huge debts because of more borrowing possibilities available (Prasad et al, 2003). Usually, the government faces difficulties as it runs budget deficit. In order to finance it, the government has to borrow from the residents, from banks or abroad. The government borrows by issuing bonds (known as Treasury bills). It means that the country obliges to repay a certain sum (face value) after a certain time and with a certain interest. If the budget deficit persists for a long time or/and it takes a significant part of GDP, foreign borrowers become suspicious about the country’s possibilities to repay the debt and demand an increase in the interest rates. Thus, prices of the government bonds fall and balance sheets of banking institutions holding them deteriorates meaning that the net worth of those banks fast decelerates. Naturally, this will lead to declining lending. Moreover, people may worsen the situation by rushing to banks to withdraw their deposits because they believe that a bank may go bankrupt soon. In any case this would leak into real economy by contracting it. Argentina’s situation in 2001 may well illustrate this chain of events (the case study provided in the following section). Argentina’s case suggests that short-termism of politicians in dealing with the balance of budget often is the primary cause of financial crisis. However, in the case of closed economy, the crisis would not happen as there would not be sufficient amount of capital to exaggerate the fiscal imbalance to the dangerous level. The government can borrow as much as national savings exceeds the investment. But in the case of an open economy, foreign capital flows broadens the borrowing possibilities.

3.2.3. The Case Study of Argentina

Argentina's government debt-to-GDP ratio in 2001 exceeded 50 percent. Foreign borrowers became suspicious about the country's ability to repay the debt. Moreover, their anxiety was strengthened by the suggestions of the possible peso devaluation (at that time peso was fixed to USD at the spot rate one-to-one). Foreign investors demanded higher interest rates for holding Argentina's bonds. The events followed the theory: investors required higher interest rate in order to compensate the differences between current exchange rates and the expected ones. Finally, risk became too big and investors started to withdraw the capital. Argentina experienced a massive capital outflow. Investors regarded domestic bonds as unattractive and demanded foreign currency. The currency board had to intervene and satisfy the supply using its foreign reserves. There was only one Plan A for the government: to devalue the currency and stimulate economy through an increase in competitiveness because there were no sources to finance the deficit. However, Argentina's leaders chose Plan B: contrary to any economic school of thought, the deficit was financed by issuing bonds for local pension funds and forcing commercial banks to acquire them. The government simply financed the deficit using banking system reserves. Unfortunately, fiscal weakness eventually led to country's default under its \$155 billion public debt (The Economist, 2002). The whole banking system collapsed. Public and foreign trust was lost. Since the very beginning in 1999, it took six years for Argentina to arise from the recession and rebuilt a sufficiently functioning financial system as well as to restore belief in the market economy. An obvious paradox arises: in the case of Laissez-faire, the government acts as a rescuer for banks and the lender of last resort. Argentina's case is totally different - severe fiscal imbalances of the government were financed using bank reserves. One common conclusion emerges: no matter which side uses the opportunities of financial globalization incompetently, a financial crisis becomes an unavoidable consequence.

3.2.4. Financial Crisis

Even though the role of "invisible hand" in the world market is crucial, governments, regulators, and supervisors have to assure that participants of the market act according to the rules. When the greediness of participants and overstatement of risk prevail over the basic principles of economy, financial globalization becomes a very powerful tool in punishing those who did not follow the rules. Thus, as it is explained above financial crisis may occur because of imprudent behavior of both: financial institutions and the government jointly or separately. This

is the result of mismanagement of large foreign capital inflows when financial markets and economy is opened for it. For example, financial liberalization/globalization was not managed properly and, thus, precipitated financial crisis in Mexico in 1994 and many East Asian countries in 1997 (Mishkin, 2007).

3.2.5.Currency Crisis

What is even worse, financial crisis is very likely to result into currency crisis, which indeed will have even more severe impact on real economy. It is empirically proved that overextended domestic lending often precedes a currency crisis (Prasad et al, 2003). Currency crisis may occur firstly because of too high indebtedness of a country or already adverse situation in the economy so that exports would be boosted and, in turn, domestic aggregate demand stimulated. Secondly, speculative attacks may actually make currency depreciate if their extents are large enough. If a country is already facing troubles, people may expect currency depreciation. As this tendency becomes quite clear, some people may engage in speculations and instantly sell a huge amount of that currency. If the central bank of that country will not have enough foreign reserves to buy all the additional supply of home currency, it will indeed lose its value against foreign currencies. This will just deepen financial/banking crisis, which, according to Kaminsky and Reinhart, activates a vicious spiral (1999). As a result, most financial and currency crisis are weak fundamentals driven – weak supervision and regulation of the financial system or severe fiscal imbalances (Mishkin, 2007).

3.2.6.Contagion Effects

As it was documented above, if there is no adequate supervision, regulation, and a solid government stance towards long term sustainability, financial globalization is likely to trigger or be one of the reasons triggering a financial crisis. Unfortunately, it may couple with a currency crisis. These are the negative consequences for one country. Yet, financial globalization is another words of saying financial interdependence meaning that if there are financial problems or even a crisis in one country, it is likely to spread to other countries or even regions due to tight financial linkages and cooperation. Thus, if one country is experiencing bad times, it is likely that foreign investors, not very well aware of the economic situation in its neighboring countries, may withdraw their capital not only from the country which is actually facing serious problems, but also from other countries. Thus, even healthy financial systems and economies can fall into

the crisis as international investors take back their capital. Moreover, it is well known that the behavior of international investors may be very volatile as they are likely to engage in momentum trading and herding. Thus, other reasons not related to domestic factors could highly matter. This is known as pure contagion (Prasada et al, 2003).

This is not the only possible channel of contamination. It may also be the case that capital flows from foreign investors/countries to recipient countries just stop because of bad macroeconomic conditions in those countries. Foreign investors may also attempt to rebalance their portfolios, reassess the riskiness on investments in a country and withdraw their funds from it, which is known as fundamentals-based contagion (Prasada et al, 2003). If these capital inflows were essential for a country and they are not substituted for capital from new investors, a country is likely to face huge financial problems and, in turn, experience contractions in real economy.

Consequently, it is very likely that financial globalization amplifies financial problems one country is facing due to cross-country financial linkages and, thus, larger economic units may suffer. Not only various shocks can contaminate to other countries, financial problems are transmitted across the border of countries much quicker than in the case of no inter-linkages. Moreover, these financial relations will also heighten the spread of real shocks. In addition, as it is explained above, even stable economies may fall into a worse situation just because of the problems other countries in the region are experiencing.

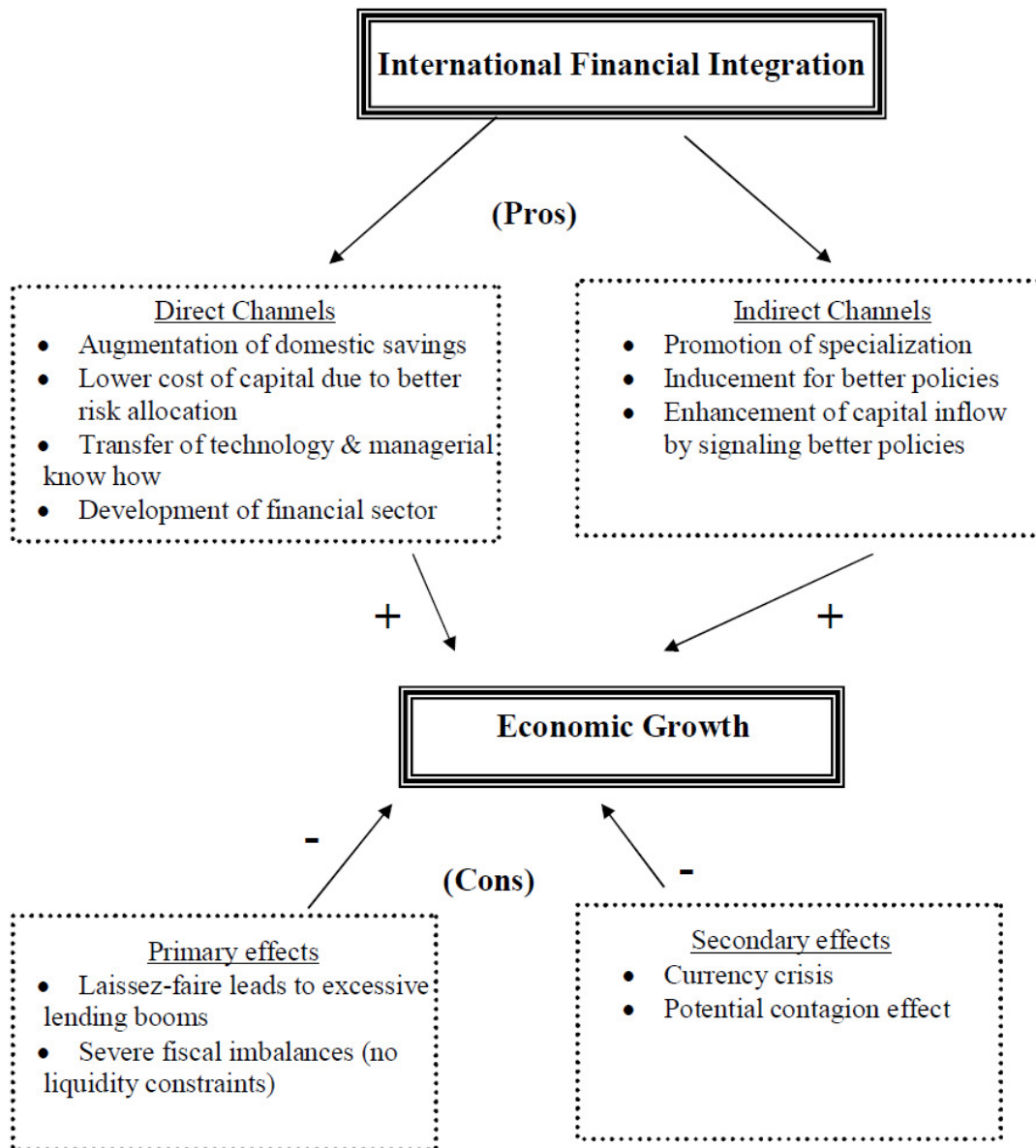


Table 2: Pros and cons of financial globalization. Source: compiled by the authors.

4. The Current Financial Crisis

After identifying pros and cons of financial globalization (see Table 2 above for the convenient summary), we turn to the investigation of the current financial crisis which has become a symbol of disastrous effects of unregulated financial globalization. Yet, it is not financial globalization to be conveniently blamed, but mismanagement of financial liberalization processes and myopic behavior of market participants, including regulators. The same mistakes

should not be repeated in the future. Thus, firstly, we present the essence of the current financial crisis.

The financial crisis is a result of unregulated mortgages and credit boom that were pushed by the low interest rate, set by Federal Reserve (at that time Federal Reserve Ratio was only about one percent). Commercial banks increased their borrowing heavily and exercised the practice of leverage. Because of the profitable results of leveraging, investors also wanted to benefit from this opportunity. The idea was as follows: the mortgage lenders and investors were connected through the investment bank, which obtained the mortgages and added them up into collateralized debt obligation (CDO). CDOs are classified into different risk classes, whereas the safest ones were also insured using the Credit Default Swap (CDS) so that prudent investors would be satisfied. Investors regarded insured CDO's as the safest ones. Credit rating agencies (Moody's, Standard & Poor) strengthened this belief by putting AAA rate on it. The investments of lowest risk brought the interest of 3-4 percent – much better than the Federal Reserve rate. So it comes as no surprise that investors started to command more CDO's to fill in their portfolios. The system worked as initially. Investment bankers contacted mortgage lenders asking for more mortgages, brokers underestimated the new home-buyers' ability to repay and pushed the home market to its limits. Quickly, a new mortgage category appeared: instead of prime mortgages, sub-prime mortgages were issued, which required no down-payment and no evidence of permanent income.

Financial analysts consider the issuing of sub-prime mortgages as the turning point in the sub-prime mortgage crisis. The crucial mistake was made. Investment banks assumed that house prices can go only one way – up. In a case of a borrower default, a house becomes the asset of an investment bank. Then that asset could be sold for a higher price than it was initially bought. However, as more and more lenders defaulted, the supply of houses exceeded the demand and house prices started to plummet. Investment banks were the first ones to be hit. Cash flows from mortgage takers dried up and declining housing prices added up to banks' problems. Moreover, investors found that their portfolios were filled up with worthless papers only and stopped buying CDO's. Mortgage lenders also understood the excessive risk that they have been taking, but could not sell their mortgages any more. All parties experienced heavy losses (according to an optimistic scenario) or went bankrupt (a pessimistic one).

The described sub-prime mortgage crisis is a simplified version of a complex situation and a great model showing how disastrous results of imprudent behavior, initially stimulated by financial globalization, by all financial markets participants could prevail.

5. Regulation and Supervision

After the controversy of financial globalization was explained in the form of advantages and problems it generates, we are confident to claim that in most of the cases drawbacks of financial interdependence occur not because of the globalization process itself, but because it is not managed well, a country is not ready to fully open up for foreign capital inflows, banks and people do not take adequate steps to prevent negative side effects and fall into a vicious circle of lending, borrowing, profiting, and endlessly taking on risks, which, obviously, sooner or later results into adverse outcomes. As it is documented, in the 1990s East Asian countries, Singapore, Hong Kong, and Taiwan all were in the process of financial globalization, but only East Asian countries eventually suffered from crisis. The difference between these two groups of countries was that Singapore, Hong Kong, and Taiwan pursued adequate prudential regulation and supervision, which primarily prevented the banking system from taking on excessive risks and, as a result, from more severe consequences. Their governments also did a good job in defending domestic currencies from devaluation; thus, also alienating financial crisis (Mishkin, 2007).

Before considering some common global regulations, strict national rules should first persist. It is important to realize that there are people inside the country who are responsible for a smooth process of financial liberalization and further collaboration with foreign investors, in particular – the government and regulators have tools and power to assure transparency and stability in the market. How these tools are used, if at all, is another question. Thus, further we intend to examine the role of those who could actually intervene and solve some problems financial globalization brings so that its benefits would be fully utilized.

5.1. The Role of the Governments

As it was explained above, the position of the government is very important when financial liberalization is conducted and a country is opening for foreign capital flows and investments. It is not only responsible for its own prudent behavior, but also for the regulation and supervision of the overall situation in the financial system and economy. Yet, we see that governments sometimes fail to pursue solid fiscal and regulatory policies. Principal-agent problem matters a

lot in this context. Residents (voters-taxpayers) of a country are principals and politicians act as agents of the principals. Agents are supposed to do their best for the welfare of the people, who actually elected them. It is often the case that in order to remain popular, in order to satisfy business interests (lobbying activities), or just because of the engagement in pro-cyclical behavior, the government spends money in line with country's residents who enjoy benefits of the possibility to borrow a lot and do not do anything which would slowdown the lending boom, endless consumption, and, as a result, would reduce the probability of unsustainable economic developments in the longer run.

Although it is beneficial that governments' safety net exists as such, but it encourages risk taking by banks as they know about the possibility to be bailed-out. Thus, the government should make steps to prevent this excessive risk taking and effectively communicate the message to the public that all stakeholders will still experience huge losses when some financial institutions will be closed and public funds injected into the economy. Especially, the owners and managers of failed institutions should be punished in some form to assure the support for injecting money from the public and those people will not undertake the same risky activities anymore. For example, in USA owners of insolvent financial institutions experience huge financial losses, some even go to jail (Mishkin, 2006).

Finally, it is crucial that governments stick to reforms needed to improve financial sector and assure stability in it and remain consistent, not give up halfway. The government should not interfere in the work of regulators and supervisors, but provide adequate resources and support for them. All institutions which are near insolvency limit should be closed or recapitalized well to assure soundness of the financial system.

5.2. The Role of the Regulators

Regulators and supervisors are core people for assuring well functioning financial system. According to Mishkin, prudential regulators and supervisors have to fulfill the following duties: impose restrictions on assets that are too risky, set sufficiently high capital requirements, and close down insolvent institutions (2007). This work is often disturbed because of political considerations or just because they do not have enough resources to make their work well. In the worst scenario, no sound regulation and supervision framework is imposed at all. Yet, it might be the case that tough regulations exist, but their role is just artificial because supervisory agencies

are not equipped with resources and enough power to effectively monitor financial institutions or to close them. This should be definitely changed.

First of all, adequate resources should be guaranteed for prudential regulators and supervisors. Salaries should increase to be equal with those in corporate sector. This would serve as an additional incentive to make a good work and not to lose a job. Further, the number of bribes in terms of money or promises of better-paid jobs would decrease from those who lobby. Another problem is to assure proper resources for the actual job of the people monitoring financial institutions. Proper information technologies should be installed to spot excessive risk taking and other inadequate behavior of banks. Government funding should be provided in case it is needed to close an insolvent institution that a regulator would not remain silent just because there are no funds for that. As it will be explained in the further section, regulatory forbearance does not solve any problems; it only results in more disastrous consequences because actions needed are postponed. In addition, giving adequate resources for supervisors would increase their independence from politicians or interested business parties who often put pressure on their work.

Secondly, according to Mishkin, in only 40% developing countries supervisors could be made personally liable for their work in civil lawsuits (2006). Thus, there is no fear of being punished, which, naturally, encourages supervisors and regulators to accept bribes or free ride. They should definitely be made legally responsible for their actions at least to some extent.

6. Insight into the Future of Financial Systems: Lessons to be Learnt

After reviewing the advantages and disadvantages of financial globalization and describing the current financial crisis, deficiencies in the current management and supervision system could be noticed which stems not from financial globalization per se. The following issues pointed out are the factors which, if implemented, could indeed help to harness the benefits of financial globalization. Yet, particular suggestions will work only for particular countries. Thus, we suggest just a general direction which could be followed to limit adverse outcomes.

By showing the fields which “asks” for improvements and more supervision, we believe that financial globalization could be done right and its benefits utilized to the fullest. The processes in the financial markets should not be as liberal as they were so far. Thus, financial capital flows and activities of financial institutions should be regulated more strictly and limited in case there

is a need. This puts pressure on financial globalization and, in turn, should be expected to evolve safer and slower than until now.

6.1. Deposit Insurance

Deposit insurance is a tool which protects depositors from losing their deposits in case a bank goes bankrupt. It is beneficial for depositors and for the whole banking system since the probability of bank runs is largely reduced. People will be less likely to withdraw their funds from banks. Yet, deposit insurance should be treated very seriously, especially if there are no adequate regulatory and supervisory institutions. The existence of the government safety net in a form of deposit insurance will definitely increase risk taking by banks. They know that the losses of depositors will be covered in any case. In addition, people are less likely to follow the activities of banks thoroughly also. Thus, deposit insurance may induce financial crisis rather than prevent. Consequently, with the presence of deposit insurance the monitoring of the banks should be careful and systematic. Further, the government should assure that banks will suffer losses even in the presence of deposit insurance.

6.2. Risk Management

Risk management of banking institutions should be definitely improved. To force banks to evaluate risk more carefully the assessment of risk management could be introduced meaning that banks will be checked by the governmental institution once per defined time period or a bank will have to submit a report on its progress in terms of managing risk to the specially for this purpose established division.

Further, the disclosure of risk levels of banks should be highly encouraged and increased. In this case individual depositors would be able to follow the activities of a bank better and withdraw funds in case a bank is taking on too much risk. As it could have been observed currently, the ordinary disclosure of balance sheets and income statements is not sufficient. More detailed information should be published in discrete time periods – quality of assets, the level of risk exposure, tools used to manage risks undertaken, etc.

Finally, mathematical models for risk management are widely applied. Yet, one should not always rely on pure numbers. The importance of soft decision making should be increased.

6.3. Connected Lending

Connected lending is a practice when loans are given to the owners of financial institutions, their managers, relatives or friends. A similar problem occurs when commercial enterprises own financial institutions. This should be prevented if soundness of financial system is to be guaranteed.

Naturally, banks are less likely to adequately monitor loans given to familiar people, which may encourage borrowers to take on risks they would not take otherwise. This is known as moral hazard problem and has adverse outcomes on the health of financial system by bringing more losses for banks. Thus, the disclosure levels of connected lending should be increased and more authority with respect to this problem should be given to the people examining banks' activities (Mishkin, 2006).

6.4. Activities of International Organizations

Such international organizations as IMF or World Bank are a part of the safety net for banks and could be seen as a lender of last resort. International community can also help to promote successful financial globalization by advancing its activities. In this section we will mostly focus on the activities of IMF as it is most widely mentioned source of funds. Because of huge importance to the well functioning of economies, IMF has authority and should use it more properly.

First of all, the adequate functioning of the lender of last resort should be assured. If there is a need and urgency, IMF could even increase quotas from member countries. The funds needed should be provided fast because now it takes a long time to negotiate all terms and conditions a borrowing country has to fulfill. Thus, the funds may be received too late or may not help that much as they would have helped a bit earlier. IMF could encourage countries to take activities which would limit moral hazard before it provides loans instead of imposing tons of rules and conditions to limit moral hazard when actually issuing loans, which makes it very difficult for IMF act fast as a lender of last resort.

Secondly, it is unlikely that such institution as world central banks would be created, which would have enough power to monitor risk management of the global financial system. Thus, as suggested by Mishkin, IMF could be reformed so that its focus is mostly directed to crisis management. It should deal more with financial, monetary, and fiscal policies while social, labor, and environmental issues could be of the secondary interest only (2006).

In line with the issue of reforming IMF, it could be mentioned that more experts and for a longer time span could be assigned for following financial and economic developments in one country. This would increase the quality of monitoring and assessing, which, as we see in the context of current financial crisis, is very important. The system of surveillance needs to be improved.

6.5. Rating Agencies

The work of rating agencies is one more area in which changes and improvements are needed because their work proved not to be as reliable and beneficial as it should be. Firstly, rating agencies should definitely disclose information how they come up with particular ratings and provide a better rationale behind them. Now it may be the case that good or bad ratings are published even if they are not well supported by real data, but is more based on general tendencies or beliefs. Or, even worse, the ratings may be influenced by profit-based interests.

In addition, as mentioned by Mishkin, a special rating agency, which is subordinate to the central bank of the country, could be introduced. It would be a part of the supervisory system and would rate all banks annually/semi-annually. The central bank would afterwards review the results and assure their quality. This would work as follows: if a bank has too low ranking, it will not attract funds. Thus, it will decrease its risk exposure and, in turn, more stability in the banking sector will prevail.

6.6. Capital Restrictions

Absence of capital when it is needed is a huge problem, which, naturally, results in a financial institution becoming insolvent. Thus, we first suggest imposing a harsh restriction on the minimum amount of capital a bank should hold. This level would vary with respect with the level of risk a bank undertakes: the more risky a bank is, the more capital it would be obliged to hold, which would be as a cushion against unforeseen shocks and help to assure stability in the financial system. Secondly, the extents of leverage should be reduced.

6.7. Too Big To Fail Policy

Usually depositors of a large bank will be fully protected in case a bank fails because a failure of a large financial institution would cause huge disruptions in the market; thus, it is seen as a must to prevent such institutions from failing by default. This “too big to fail” policy could be observed in the recent events as well. People were not adequately following the activities of

largest banks as they are assumed to perform well and do not have problems. The governments, in turn, also act as according to a role model – they bail-out big banks as they are indeed too big, too important, and, alternatively, too politically connected to go bankrupt. This, in turn, leads to moral hazard of big banks. Thus, very big and important financial institutions should be followed and scrutinized especially attentively by regulators. It should be assured that even the largest stakeholders (depositors, shareholders or managers) will experience losses in case a bank fails.

6.8. No Regulatory Forbearance

Regulatory forbearance is the practice of regulators and supervisors when they knowingly let financial institutions, which are obviously defaulting, continue their operations (Mishkin, 2007). This practice highly increases moral hazard problems as banks now undertake even more risks because they do not have anything to lose from this bet. There is a low probability that additional very risky loans will pay off and a bank will turn into a healthy institution again. Rather, even more defaults occur and financial system is further weakened. Thus, it is clear, that such liberalism should be abandoned to prevent devastating financial crisis. Only those financial institutions which seem to face only temporary difficulties and have solid strategies how to solve the problems could be allowed to further operate. But, again, with various conditions imposed, regular reporting on the progress, and close monitoring. If the institution does not make progress, when it should be closed down and the best use of its assets should be made. A reaction to undesirable actions should be fast and efficient. If this is to be achieved, supervisors need to be well aware about the situation in the banking system. Frequent assessments and examinations should be made.

If a bank is eventually recognized as insolvent, it needs to be closed and a proper recapitalization of the banking system made. The assets of insolvent institutions closed down should be sold to healthy institutions. If healthy banks do not agree to buy those assets immediately, a new entity, which will be responsible for selling out those assets should be created (e.g. Resolution Trust Corporation in USA or Korea Asset Management Corporation in South Korea) (Mishkin, 2006).

6.9. Basel II Accord

Basel II builds on three pillars: prudent capital regulation, supervision, and market discipline (Bank for International Settlements, 2004). Yet, in the process of implementing this, too much is

relied on banks' ability to calculate independently the weights of capital they have to hold to prevent risks (The Economist, 2009). Given the current developments in financial markets, we claim that too much freedom for financial institutions is not the most optimal solution anymore and this "over-liberal" period should move into more regulatory phase. Because it just cannot be so by definition that individual banks are safe and reliable while the aggregate system is unstable.

Moreover, the current Basel II could be said to be too theoretical since it is overly complex. Its length is 239 pages, which is much more if compared to Basel I having 28 pages only (Carvalho, 2005). This further implies that its applicability, most probably, would be limited in decision making. For example, USA announced that only a few large banks will adopt sophisticated techniques suggested in Basel II. Meanwhile, only a small number of banks are expected to qualify for the application of those methods in UK and France (Carvalho, 2005). Consequently, its practical contribution is questionable. We suggest shortening it and making it as comprehensible and easy to implement as possible.

6.10 Currency Mismatch

This final remark is made in order to prevent currency crisis, which, as was explained above, stems from financial crisis or goes in line with it and may worsen the condition of banking institutions even more than it was initially. One of the tools which could to some extent prevent adverse effects if the domestic currency depreciates is to limit currency mismatches between the liabilities and assets firms or households have.

Many firms have liabilities denominated in foreign currency, but the assets are denominated in local currency. Thus, if domestic currency depreciates, large losses could be expected. Exposure to financial crises would be much lower if firms were discouraged from undertaking foreign-denominated debts, especially those which are primarily selling their production domestically and getting revenues in local currency. Yet, the existence of the government safety net encourages financial and nonfinancial firms to borrow in foreign currencies as they know that the government will step in and bail-out. This is exactly what has happened recently. This, in turn, just increases the vulnerability of a country to financial crises. The majority of the foreign-denominated debt is intermediated through the banking system. This means that financial stability may be increased if there were regulations and a proper supervision imposed on banks so that currency mismatches would be reduced/limited. Most important it is to notice that focus

should be directed to the systematic risk for the economy stemming from the currency mismatch instead of looking at the absolute amount of liabilities denominated in foreign currency (Mishkin, 2006).

Additional solution to currency mismatch problem is to use debt indexation (Mishkin, 2006). Many residents prefer to borrow in foreign currency because it is expected to be more stable with respect to inflation than domestic currencies. This would provide an attractive alternative for people since with indexation, debt contracts would be related to the price level indicator (e.g. CPI) so that the real value of debt in terms of goods and services would remain unchanged (Mishkin, 2006).

7. Conclusions

The main aim of this paper was to explain and thoroughly analyze the phenomena of financial globalization in the context of the current world-wide financial crisis; thus, further, validating to make the inferences into the future development of global financial markets. The final conclusions could be drawn only after the history of financial development was summarized and the controversy embedded in it carefully explained. There are substantial advantages that financial globalization brings: development of financial sector, international risk sharing, expanded liquidity constraints. On the other hand, if financial liberalization is undertaken when a country is not fully ready for it or the processes in financial markets are mismanaged, adverse outcomes occur: excessive risk taking by banks, debt accumulation by governments, financial and currency crises. Because of a high degree of financial cross-linkages contagion effects also emerge.

Although we explicitly point out benefits and losses created by financial globalization, one and final judgment if it is inherently good or bad process could not be made. As the most prominent issue we see the importance of policies which could actually shape financial globalization so as the negative side effects are prevented. First of all, national regulatory frameworks should be strengthened and made more efficient. Some pundits contemplate that supranational regulations should be imposed. Yet, we do not agree with this statement as the size and complexion of financial markets is already too big for one institution to coordinate. In addition, scheme never fits all, meaning that different policies still should be applied for different countries according to internal situations and possibilities. Consequently, we identify 10 fields,

which in our opinion, deserve most attention and should be definitely improved to achieve more optimal outcomes from financial globalization processes. These are:

- Deposit insurance issues;
- Improved risk management;
- Restricted connected lending;
- More focused activities of international organizations;
- More openness from rating agencies;
- Capital regulations;
- Abandoning “too big to fail policy”;
- Elimination of regulatory forbearance;
- Shaping Basel II Accord;
- Reducing currency mismatches.

By pointing out these “hot” issues, we argue for the safer future developments in financial markets. Yet, it remains a big question if the essential regulations will really take place and the past/current lessons will be actually learned as market participants tend to forget severe effects of financial crises in the presence of profitable opportunities.

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