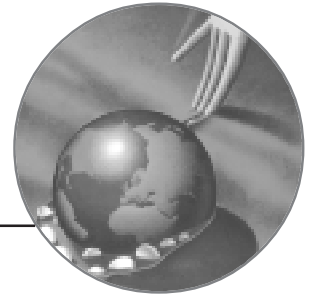


# Portfolio Capital Flows:

Not an unmitigated blessing. A literature survey.



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## Abstract

This paper is a literature survey on capital flows to developing countries. It analyzes the characteristics of the different components of capital flows. It also focuses on the factors, internal and external, that make capital flow into developing countries, as well as on the consequences of these flows -and their reversals- on the health of the recipient economies. Finally, it surveys the policies that have been implemented to handle them in search for the most recommendable ones. Its main conclusion is that capital inflows play a very important role for developing countries by being an alternative for these economies to undergo a path of growth, a possibility that otherwise will be undermined by the lack of sufficient domestic savings. However, there is a large number of risks associated with capital inflows which are magnified by the fact that capital-importing countries usually do not have neither adequate institutions, deep financial markets, strong banking systems, nor enough macroeconomic expertise. All these factors put together make capital inflows to developing countries “not an unmitigated blessing”.

**Keywords:** Capital Flows, Portfolio Investment, Short-term Capital.

## Introduction

This paper is a literature survey on capital flows to developing countries. It analyzes the characteristics of the different components of capital flows which are short-term, long-term flows, portfolio, and foreign direct investment. It also focuses on the factors, internal and external, that make capital flow into developing countries, as well as on the consequences of these flows -and their reversals- on the health of these economies. Finally, it surveys the policies that have been implemented to handle this kind of flows in search for the most recommendable ones.

It appears that although developing countries have been almost desperately competing among themselves to attract foreign capital, the effects of that capital in the economies of the countries that succeeded in this race -mainly Latin American and East Asian countries- have not been that favorable.

This a priori idea comes from the striking fact that almost every paper surveyed -if not all of them- suggests that capital inflows are “not an unmitigated blessing”.

Less developed countries -LDC henceforth-, with economies characterized usually by low domestic saving rates and large current account deficits, have looked for foreign savings in order to keep these economies in the path of growth. The capital inflows that bring those foreign savings and integrate these economies to the world, increase investment and consumption, and with it, they boost growth. This financial integration to the world also reduces the volatility of consumption by allowing risk diversification and borrowing to offset temporary declines in income.

There is also a dark side of the effects of capital flows on the recipient economies, such as monetary expansion, inflationary pressures, real exchange appreciation, risks to the financial sector, and even larger current account deficits. To all these, add the increased volatility caused by the possibility of large reversals taking place as a consequence of changes in expected asset returns, investor herding behavior, and contagion.

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Capital flows seem to be a problem when they take place in large amounts. The most recent waves happening during the seventies and the nineties. It is in these two periods that this paper focuses to withdraw its conclusions.

The first of these waves starts with large deposits in American and European banks coming from oil exporter countries. These banks were in need of investing these funds, thus channeled them as loans to Latin American countries, which were avid of capital inflows to financing their large current account deficits and public expending programs. Since those loans were not invested in productive activities, they did not provide funds for their repayment, making necessary to get additional loans. The situation turned into a snow ball that burst in 1982 when the Mexican government declared that it could not service the debt. It was just a matter of time for many other countries in the region to follow the same path. This crisis prevented new capital flows to arrive not only to the region but to other developing regions until the beginning of the nineties.

The second wave that took place in the nineties was even stronger and its characteristics were very different from the previous one. This time capital arrived in the form of investment, not debt, and it was mainly private capital directed towards private agents. By 1996, its amount was four times the inflows of 1990, almost \$190 billion. These inflows were highly concentrated in Asia and Latin America, and within them, 75% of the total went to just a dozen countries.<sup>2</sup>

Although the nature of the capital flows is very different in these two periods, the large and rapid reversal of flows is a common characteristic. With this reversal, the crisis, loss of market access, and spill-over effects are also common. Being this the case, the first question that needs to be addressed is if the composition of capital flows—long-term versus short-term—matters to prevent large reversals.

A first classification of capital flows is according with their maturity: short-term for a maturity less than one year and long-term for a longer maturity. Another classification corresponds to the destination of the capital flows: debt (sovereign, financial, and non-financial, borrowing and lending), equity (portfolio investment in stock markets), and foreign direct investment (FDI).

From the point of view of desirability, FDI is usually preferred to the other types of flows. It not only generates growth through the knowledge spill-over and technology transfer that it brings but it also appears to be less volatile, since it is argued that FDI has low sensitivity to international interest rates because is driven by long-term profitability. Compared to FDI, portfolio flows are considered less desirable because they exhibit greater volatility since it is less costly to reverse them. The last ones in the desirability rank will be short-term flows other than portfolio investment, i.e. short-term debt.

The greater volatility of capital flows to Latin America compared to those directed to Asia has been explained on the basis of the different composition of these flows. However, if portfolio investment is separated from short-term flows, the magnitude of the latter and its share in total capital flows is greater in Asia than in Latin America (Lopez-Mejia, 1999). Therefore, the volatility of capital flows in Latin America can not be attributed to significantly larger inflows of short-term capital in comparison with Asian countries. Montiel and Reinhart (1997), cited by Lopez-Mejia (1999), conclude that the explanation relies rather in a poorer macroeconomic policy track record and shakier credibility.

Chen and Khan (1997) search for an explanation of why the composition of capital flows varies across regions. They found that although the absolute levels of growth potential and financial market development are relevant, it is also important the relative magnitude of these two factors. It can be concluded from their findings that a better financial market structure does not guarantee portfolio flows by itself. Additionally, the good quality capital flows is not necessarily characterized by a high level FDI and a low level of portfolio flows. This composition can be just a sign of an underdeveloped financial market in the recipient country that hampers the attractiveness of its growth potential.

<sup>2</sup> In order of amount received: China, Brazil, Mexico, Thailand, Indonesia, Korea, Argentina, Malaysia, India, Turkey, Hungary, and Russia. (IMF, World Economic Outlook data base.)

The desirability of FDI over portfolio flows is a question that has not been settled yet. In order to shed more light into this discussion, Claessens, Dooley, and Warner (1995)<sup>3</sup> –CDW henceforth- try to answer the question: Portfolio capital flows, hot or cold? In another words, are portfolio flows hot money –speculative and reversible- or cold money –based on fundamentals and reversible only when fundamentals change-. These authors cite Reisen (1993) concluding that the majority of flows to Latin America are hot rather than cold; Nunnenkamp (1993) concludes that hot money transactions have been relatively small in the Chilean case but significantly large in Brazil; finally, Turner (1991) ranks short-term bank flows as least volatile, and long-term bank flows as least volatile, followed by FDI as the next-to-last volatile. All these studies are based on the label given to the flow in the balance of payment statistics, and they try to infer persistence from the labels. CDW, on the contrary, using only time-series statistics on persistence, try to identify the label.

Even if labels are meaningful, it could be the case that, according to the current stage of development of financial markets it, would be difficult to tell apart short-term flows from long-term ones based on their nature. Nowadays, multiple financial instruments are available to finance any project, and so if a tight link ever existed between the financing method and the underlying nature of the project, it is probably becoming increasingly loose. A Treasury bond with a thirty-year maturity can be sold on the secondary market, and short-term assets can be continuously rolled over. Many observers seem to base their notion that short-term flows are more volatile on the fact that they need to be repaid faster. Although rapid repayment may lead to higher volatility of gross flows, it need not make net flows more volatile. Short-term flows that are rolled over are equivalent to long-term assets, and a disruption of gross FDI inflows, can cause its net flow to be equivalent to the repayment of short-term flow (CDW, 1995).

CDW's findings are that long-term flows are the most important component for all countries in the sample, except the United States and Japan, where, respectively, short-term flows and portfolio flows are more important. As a measure of volatility, they use the coefficient of variation and found, surprisingly, that short-term flows have the lowest coefficient in seven countries. Long-term flows are followed by FDI and then by portfolio flows in terms of volatility. To assess persistence, they search for autocorrelation in the time-series data, where FDI and long-term flows are expected to exhibit positive autocorrelation, and short-term flows should show a zero or even negative autocorrelations. Only Japan conform to these expectations, becoming the exception more than the rule. Another way to check for persistence is calculating half-lives from impulse response functions. Again, with the exception of Japan, most of the half-lives are one, meaning that shocks die out after just one quarter. In addition, there is little evidence that supposedly persistent flows such as FDI and long-term debt exhibit more memory than other flows. Finally, they test for predictability and find that long-term flows are at least as unpredictable as short-term flows, and knowledge of the type of flow does not improve the ability to forecast the aggregate capital account.

The results of the study presented above are striking for what CDW call “the conventional wisdom” or the general acceptance about the greater volatility of short-term flows. Sadly, the study does not cover the many financial crises that took place in the nineties, starting from Mexico 1994. This fact, along with the use of a limited sample of ten countries, constitute an impediment to accept its conclusions and start drawing policy recommendations based on it. Many studies that have been previously cited in this paper have found that at least short-term flows are more volatile and require a positive action from the recipient countries. In relation with portfolio flows –restricted to equity investment-, the question remains debatable.

However, before entering into the field of policy recommendations, lets analyze what causes capital to flow from one country to another, specifically from a developed country into a developing one.

<sup>3</sup> This study is performed on five industrial countries (France, Germany, Japan, US, and UK) and 5 developing countries (Argentina, Brazil, Indonesia, The Republic of Korea, and Mexico).

## Causes of Capital Flows.

Traditionally, two different groups of causes of capital flows have been identified. One group comprises the internal or “pull” factors, which corresponds to developments in capital-importing countries that have improved private risk-return characteristics for foreign investors. This have been achieved through increased creditworthiness as a result of structural reform, basically market-oriented reforms such as trade and capital market liberalization, in addition to debt restructuring and improved macroeconomic management. The other group of causes corresponds to the external or “push” factors, among them, the market conditions in developed countries in terms of world interest rate, business cycles, and exchange rates of major countries (Frankel and Roubini, 2000; Kim, 2000; cited in Kim, Kim, and Wang, forthcoming).

It is important to establish the relative importance of these two groups of causes since policy recommendations will vary in each case. If causes are mainly external or exogenous, only indirect, compensatory policies can be considered. If causes are domestic, however, more direct measures may be

feasible. (Fernandez-Arias and Montiel, 1996).

Calvo, Leiderman, and Reinhardt (1994) suggested that cyclical conditions in industrial countries have been the main factor driving these flows to developing countries, in particular, the decline in the world interest rates observed in the early nineties combined with recession in the main industrialized countries.

However, in 1994, the world interest rate was increasing but capital continued to flow to emerging economies, suggesting that there was more into play in investors decisions. Lopez-Mejia (1999) mention how two developments in the financial structure of capital-exporting countries increased the responsiveness of private capital to cross-border investment opportunities: on one hand, falling communication costs, strong competition, and rising costs that led firms in industrial countries to produce abroad in order to increase efficiency and profits. On

the other hand, it was the growing importance of institutional investors which were more willing to invest abroad because of higher long-term expected rates of return and risk diversification. What was seen during the rest of the decade was a race of capital-importing countries with the US New Economy companies in order to attract this institutional investment (Kim, Kim, and Wang, forthcoming).

Kim (2000) applies a structural VAR model to investigate the sources of capital flows in four developing countries<sup>4</sup> and finds that there is a drastic increase in the role of external factors – mainly foreign interest rate and output- in the determination of all domestic variables including output, the real exchange rate, and the capital and current account balances. The role of domestic supply and aggregate demand shocks declined in the sample countries. In the nineties, the large capital inflows –and its sharp reversal- in all four countries are mostly related to external shocks. This is consistent with the findings of Calvo et al. (1993) in Latin America. The role of foreign interest rate is as significant as reported by Fernandez-Arias and Montiel (1996). Kim (2000) concludes that the relative importance of external shocks seems a robust

feature of capital flows.

Contrary to those that support exogenous factors as the main driving force of capital flows, Schadler et al. (1993) cited by Lopez-Mejia (1999) argued that domestic factors were the dominant cause of capital inflows to emerging markets. They noticed that changes in external factors did not coincide and even postdated

the surges in some of the countries reviewed. Moreover, the variation in timing, persistence, and intensity of the inflows among the different countries suggested that investors might have reacted to country-specific factors. The World Bank also provided evidence to highlight the importance of domestic factors, i.e. countries with the strongest fundamentals attracted the largest flows; FDI is the largest component of these flows and it is not explained by changes to interest rates but to

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<sup>4</sup> Chile, Korea, Malaysia, and Mexico.

macroeconomic fundamentals; portfolio flows, which are sensitive to interest rates, continued to increase despite the increase in global interest rates.

In summary, both types of factors cause capital to flow. The presence of push factors is required for capital to actually flow out of capital-exporting countries, but pull factors will determine the destination of those flows. Particularly, in the case of portfolio investment, exogenous factors are decisive, but internal development of financial markets in the recipient country will be needed to attract it. In what concerns to policy responses, causes seem to vary as well as their relative importance, therefore, more than withdrawing a general conclusion, governments should identify clearly what is causing changes in capital flows before implementing a specific policy, since the advisable response will vary according to the nature of the factor.

Having explored the causes of capital inflows, in what follows next, the effects on the recipient economy are discussed.

### Capital inflows: an unmitigated blessing?

Both, benefits and risks, seem to come along with capital inflows. That is the conclusion withdrawn from all the papers reviewed, where capital inflows are qualified as mixed or “not an unmitigated blessing”.

Among the benefits are growth, inter-temporal optimization, risk sharing through portfolio diversification and efficiency gains (Kim, Kim, and Wang forthcoming). Foreign capital flows can boost growth by increasing capital accumulation. Additionally, they compensate for the low rate of domestic savings that characterized less developed economies. Agents in these economies may also smooth consumption that otherwise will be unstable because of business cycles. Greater financial integration allows these agents to diversify their portfolios away from country-specific risks. Finally, the efficiency gains come from financial deepening, technology

transfer, and knowledge spill-over, i.e. better management.

However, along with all these benefits, capital flows create new risks for the recipient economies. Those risks include overheating of the economy due to capital surge and excessive expansion of aggregate demand, increasing volatility in prices and exchange rates due to volatile movement of capital flows and transmission of foreign shocks (Kim, Kim, and Wang, forthcoming). They also affect the financial system that intermediates these flows, and can exacerbate microeconomic distortions already present in the recipient economy.

The first one of these risks, the macroeconomic overheating, is due to an excessive expansion of aggregate demand. This expansion is likely to be reflected in inflationary pressures, real exchange rate appreciation, and widening current account deficits. These effects depend largely on the exchange rate regime. Under a free float, a positive shock to the capital account generates no change in international reserves and monetary aggregates, but creates a nominal exchange-rate appreciation that induces a current account deficit. Under fixed exchange rates, the intervention of the monetary authorities to defend the parity leads to reserve accumulation, lower domestic interest rates, and higher domestic asset prices. The result is an expansion of aggregate demand with inflation.

In addition to the macroeconomic overheating, the economy may suffer due to weaknesses or mismanagement

within the financial system that intermediates the capital flows. If these flows are sterilized by the monetary authorities, banks usually find themselves with large holdings of treasury bills. If no sterilization is taking place, banks will have large funds virtually “parked” there, situation that pushes them to increase their loans, usually, paying less attention to loan quality and to matching the maturity of deposits with that of the loans—the first ones frequently shorter-. If flows reversal takes place, the result is a financial crisis, a problem that will be magnified if bank supervision is poor (Calvo et al., 1994).

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Lastly, microeconomic distortions already present in the economy can exacerbate the risks of macroeconomic overheating and financial system distress, which cause a cycle where a “boom” takes place first, usually followed by a “bust”. Among the factors that can exacerbate these boom and bust cycles are the lack of credibility on the domestic reforms implemented by the recipient country. Also, the presence of asymmetric information because of herding behavior, adverse selection, and moral hazard cause inefficiencies in the allocation of capital inflows. In the same way, shallow capital markets where sales by one group of investors lead to general fall in asset prices and with it to a “bust”. Finally, price and wage rigidities may cause exchange rate overshooting as described in the Dornbusch model (Calvo et al. 1994, Lopez-Mejia, 1999).

However, the major risk of all is the occurrence of a large reversal. This can happen if the exogenous cause disappears, i.e. the world interest rate starts to rise. Or it can be caused by lack of confidence on domestic macroeconomic policies that lead to speculative attacks, and with them, to balance of payments crises. Leading indicators of crises are a persistent decline in international reserves, rapid growth of domestic credit relative to demand for money, fiscal imbalances, credit to the public sector, and the evolution of the real exchange rate and the current account balance. Fundamentals and ‘sentimentals’ –investors perception of the health of the economy- combine to cause the stampede of investors. Thus, large inflows can be followed by large reversals that, in some cases, leave the recipient economy in an even worse shape than it had before receiving the inflows.

In recent times, and as a consequence of greater financial integration, a phenomenon called contagion has been present in financial crises. The available literature shows that contagion may happen through four channels: trade agreements, “wake-up call” like the collapse of one currency that alters the investors perception about other countries fundamentals, herding behavior, and financial links between countries (Lopez-Mejia, 1999). Due to contagion, financial crises that started in one country has been extended to entire regions or have reached even farther. Therefore, large reversals of capital flows may occur in one country not only as a consequence of its own weaknesses but also caused by problems of

neighbor countries or, in some sense, related countries. This fact adds more risk to capital flows.

In conclusion, capital inflows play a very important role by being an alternative for capital-importing economies to undergo a path of growth, a possibility that otherwise will be undermined by the lack of sufficient domestic savings. However, there is a large number of risks associated with these capital inflows which are magnified by the fact that those capital-importing countries usually do not have neither adequate institutions, deep financial markets, strong banking systems, nor enough macroeconomic expertise. All these factors put together make capital inflows to developing countries not an unmitigated blessing. Therefore, adequate policy responses should be put in place to prevent the occurrence of crises, as explained in what follows.

### Policy Responses.

The appropriate policy response depends on the nature of the cause of capital inflows, that is, if it is exogenous or endogenous, temporary or permanent. If exogenous, the ability of the authorities to intervene will be more limited. If temporary, the measures taken should be temporary as well.

Policy responses may be classified in three different categories: counter-cyclical policies, such as sterilization, flexible exchange rate, and fiscal policy. The second group will be structural policies like trade policy, and banking supervision and regulation. The last group comprises capital controls.

The main counter-cyclical policy is sterilization by which the monetary authorities can avoid aggregate demand pressures when the exchange rate regime is not completely flexible. Nominal exchange rate appreciation is prevented by accumulating international reserves.

Sterilization can be done through open market operations, increases in reserve requirements, and management of public sector deposits. The first one, open market operations, takes place through the central bank sale of high yield assets in exchange for low yield reserves. It reduces financial intermediation of the flows and with it, the risk for the banking system of a sudden reversal of those flows. However, it generates fiscal problems because of the fiscal

burden of the high yield instruments issued. It also increases domestic interest rates, inducing further capital flows, flows that will be more of the short-term type.

Increasing reserve requirement for banks is another way to sterilize. It offsets the monetary expansion caused by the intervention of the central bank in the foreign exchange market. It limits the ability of banks to lend without the fiscal burden that open market operations cause. However, it also introduces distortions in the credit market affecting the efficient allocation of those loans, and it can further produce disintermediation, case in which the desired monetary reduction is not achieved.

An additional way to sterilize is shifting deposits of the public sector from the banking system to the central bank. In this case, there is neither fiscal burden nor implicit taxing to the banking system through higher reserve requirements. Its limitations come from the availability of eligible funds. According with Kim, Kim, and Wang (forthcoming), the empirical evidence about the effectiveness of sterilization is mixed and studies on developing countries often conclude that it has only short-term effects.

Another policy that can be implemented is letting the exchange rate to float. For Calvo et al. (1994), allowing the exchange rate to float has the advantage of making money supply and domestic credit exogenous with respect to capital inflows. Greater exchange rate uncertainty might discourage short-run speculative inflows. The main disadvantage would be the nominal and real exchange rate appreciation that will take place, hurting strategic sectors of the economy such as non-traditional exports. If the equilibrium real exchange rate appreciated, this policy has the advantage that the real appreciation occurs through the nominal exchange rate appreciation rather than through inflation increases. However, the merits of this policy are not always warranted since when a currency appreciates as a result of capital inflows, the expectations of the market can attract further inflows, causing greater appreciation in the nominal exchange rate in addition to a large current account deficit.

The third counter-cyclical policy is to increase fiscal discipline to lower aggregate demand. With this

policy, the costs of sterilization are avoided. It is a substitute for exchange rate flexibility as a stabilization policy, it limits the appreciation of the real exchange rate since most of the public expenditures are in non tradable goods, consumption will be also lower with a less appreciated currency since it is more oriented towards traded goods, and the current account deficit will be also lower. However, fiscal policy is not so flexible since it requires the approval of the Congress, limiting its effectiveness to counteract fluctuations in capital flows.

Among the structural policies are trade policy, and banking supervision and regulation. Trade liberalization can reduce the appreciation of the real exchange rate by shifting expenditure to tradable goods and restricting the net inflow of foreign exchange. However, the evidence suggests that the impact of trade liberalization on the trade balance is ambiguous (Fernandez-Arias and Montiel, 1996). Furthermore, it can induce additional inflows by increasing creditworthiness in domestic macroeconomic management. The other structural policy is improvement in banking supervision and regulation. As Kim, Kim, and Wang (forthcoming) remark, based on Johnston (1998), it is an important condition before financial liberalization which was usually overlooked in previous studies about financial markets liberalization. This policy is necessary to reduce the vulnerability of the financial sector during periods of capital inflows associated with lending booms and surge in asset prices.

The last group of policy responses is comprised of measures to control capital inflows. The issue of the convenience of establishing capital controls and their effectiveness has been subject to a great discussion. As Kim, Kim, and Wang (forthcoming) pointed out, the “mainstream view is that capital controls cannot substitute sound macroeconomic policies. In addition, flexible exchange rate regime alone may not be able to reduce massive capital inflows, especially short-term capital inflows. Therefore, there may be a need for emerging market economies to manage massive short-term capital inflows, while they continue to strengthen their financial system”.

The objective of capital controls is to reduce monetary and credit expansions during inflow periods and, during outflows, they try to avoid high interest

rates that could cause distress in the financial system. These controls can be quantitative to regulate the volume of capital flows or tax-like measures as non-remunerated reserve requirements in foreign borrowing or simply transaction tax. They mainly target short-term capital that is perceived as more volatile and destabilizing.

Quantitative restrictions, if implemented for medium or long-term can affect seriously the competitiveness and development of the economy. The literature reviewed is more inclined towards the implementation of tax-like measures, specifically the one that is known as Tobin tax. This is a tax on foreign exchange trading or on short-term cross-border bank loans. It is said to operate as “throwing sand in the wheels of international finance”. This kind of tax has several advantages. It increases the autonomy of domestic monetary policy, reduces the likelihood of speculative attacks on fixed exchange rate regimes, and encourages long-term investment over the short-term speculative one. However, to be effective, it has to be adopted worldwide, otherwise, the taxed activities will shift to untaxed countries. Additionally, the Tobin tax will reduce trading and lead to less liquid markets, meaning more volatile international financial markets.

Capital controls not always imply restrictions imposed on capital inflows. They can also pursue to encourage capital to flow out of the country and the goal of lowering net inflows may be achieved in this way as well. However, the removal of constraints to capital outflows may also attract new capital inflows since investors will be assured that they can leave the country whenever is convenient for them.

The experience of emerging economies imposing capital controls is mixed in terms of efficacy. Chilean controls during most part of the nineties are cited as a successful example, specifically in lengthening the maturity of the inflows according to Bernard and Cardoso (1998). The Chilean controls comprised a non-remunerated deposit at the central bank and a minimum holding period for inflows entering this country. Sebastian Edwards (1999) is not so enthusiastic about the success of these measures. He considers that by implementing these measures, Chile failed to attract investors with a longer term view that would have contributed to a greater development of the financial markets in this

country. On the other hand, the effectiveness of capital controls is usually undermined by the ability of investors to go around the regulations through methods such as over-invoicing imports, under-invoicing exports, and mislabeling capital flows (Edwards, 1999; Singh and Weisse, 1998; Lopez-Mejia, 1999; Kim, Kim, and Wang, forthcoming).

As it was said above, the issue of how convenient is to impose controls to capital flows remains subject to discussion. In any case, they should be considered just as one of the many policies that can be used to manage capital flows. It is more likely that, depending on the causes of the flows, more than one policy should be put in place. Even if the adequate policy response varies from one case to the other, it is clear in the case of emerging economies that an active management of capital flows is required.

## Conclusions.

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In conclusion, capital inflows play a very important role by being an alternative for capital-importing economies to undergo a path of growth, a possibility that otherwise will be undermined by the lack of sufficient domestic savings. However, there is a large number of risks associated with these capital inflows which are magnified by the fact that those capital-importing countries usually do not have neither adequate institutions, deep financial markets, strong banking systems, nor enough macroeconomic expertise. All these factors put together make capital inflows to developing countries not an unmitigated blessing.

The greater risks are the increased volatility that capital inflows bring, and the possibility of large reversals. From this point of view, does the composition of capital inflows matter to the point that certain types are more desirable than others? FDI and long-term flows appear the less volatile, followed by portfolio and short-term flows. Although CDW study found little evidence of short-term capital flows being more volatile than longer term ones, their study stands alone, corresponds to a small sample of ten countries and was performed previously to the crises of the nineties, shedding little light on this issue.

Exogenous and endogenous factors cause capital to flow. The presence of push factors is



required for capital to actually flow out of capital-exporting countries, but pull factors will determine the destination of those flows. Particularly, in the case of portfolio investment, exogenous factors are decisive, but internal development of financial markets in the recipient country will be needed to attract it. In what concerns to policy responses, causes seem to vary as well as their relative importance, therefore, more than withdrawing a general conclusion, governments should identify clearly what is causing changes in capital flows before implementing an specific policy, since the advisable response will vary according to the nature of the factor.

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