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Macroeconomic aspects of financial liberalization

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Summary: The positive and the negative macroeconomic aspects of the financial liberalization for the developing and emerging economies are well described in the present literature. But it is not easy to clearly summarize the final effects of the financial integration on the certain country. For instance, the argument about the growth benefits of the capital account liberalization is likely to be inadequate considering the financial crises in the emerging markets at the end of the last century. On the other hand, many authors (especially in the financial literature) report that the equity market liberalizations help to significantly boost the economic growth. There are also some examples on the microeconomic level (firm level or industry level), when the international financial integration brings certain benefits to the integrated enterprises and the capital flows restriction leads to the distortionary effects. In the paper we analyze the macroeconomic effects of the capital flows liberalization

Key words: Capital account liberalization, Financial liberalization, Financial integration,

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1. Introduction

The financial crises of the 1990s have uncovered several problems. Banking systems in many countries collapsed, fast growing economies suddenly faced sharp recessions, and the increasing international capital flows of the mid-1990s declined to even lower levels. Another important casualty of these crises has been the support for the liberalization and integration of financial systems. Many economists have argued that globalization has gone too far, leading to erratic capital markets and causing costly crises. This has prompted some to suggest a return to the order of financial controls. For example, Stiglitz (2000) clamors for developing countries to put some limits on capital inflows to moderate "excessive" boom-bust patterns in financial markets. Even controls on capital outflows, not long ago dismissed as ineffective, have been recommended again. Krugman (1998), for example, argues that capital controls might help in managing, at least temporarily, an otherwise disorderly retreat of investors. The debate has reached the general public, with i.e. Krugman (2002), Stiglitz (2002), Wagner (2002), Wei – Yi (2002), broadly criticizing the functioning

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of the international financial system. With many more economists joining the ranks of those supporting intervention in financial markets, long gone seem to be the days of an indiscriminate advocacy of financial integration.

Interestingly, many still emphasize the advantages of liberalization and integration. It is claimed that financial liberalization helps to improve the functioning of financial systems, increasing the availability of financial funds and allowing cross-country risk diversification. For example, Obstfeld (1998) argues that international capital markets can channel world savings to their most productive uses, irrespective of location. Stutz (1999) and Mishkin (2001) claim that financial liberalization and integration promotes transparency and accountability, reducing adverse selection and moral hazard while reducing liquidity problems in financial markets. They argue, moreover, that international capital markets help to discipline economic policymakers, who might be tempted to exploit an otherwise captive domestic capital market. Others even claim that financial liberalization and the financial development tend to greatly facilitate economic growth. As has the group that favors more repression, the group supporting deregulation has also been growing.

The empirical research, so far, has not helped to resolve the conflicting views. The findings in the literature suggest that booms in financial markets are at the core of currency crises and that these large cycles are triggered by financial deregulation. On the other side, the findings in the finance literature tend to support the claim that deregulation is beneficial, with liberalization reducing the cost of capital. Moreover, the existing empirical literature has not provided a comprehensive analysis of the liberalization process. It has concentrated alternatively on the liberalization of the domestic financial sector, the capital account, or the stock market, even when liberalization reforms have entailed the progressive opening of the three sectors.

The analysis we present provides a perspective on the macroeconomic effects of financial liberalization.

2. Measuring financial openness

The traditional approach to measuring financial openness is to use measures of legal restrictions on cross-border capital flows. Such capital controls come in many varieties (controls on inflows versus controls on outflows, quantity controls versus price controls, restrictions on foreign equity holdings, etc.).

Measuring capital account openness has long been a challenge (see Edison and others, 2004). Some researchers utilize the summary information provided by the Annual Report on Exchange Arrangements and Exchange Restrictions (AREAER) to construct a share measure, reflecting the fraction of years in the sample in which a country's capital account was open (see Grilli and Milesi-Ferretti, 1995; Rodrik, 1998; and Klein and Olivei, 2006). Quinn (1997, 2003) use the narrative descriptions in the AREAER to develop a quantitative measure of capital account openness. Raising the level of technical sophistication a notch, Chinn and Ito (2005) develop an index of financial openness based on principal components extracted from disaggregated capital and current account restriction measures in the AREAER. Mody and Murshid (2005) also utilize the measures involving restrictions on capital and current account transactions and construct a different measure. Edwards (2005) combines the measures in Mody and Murshid (2005) and Chinn and Ito (2005) with information from country-specific data sources and proposes a new index. After the expansion of the set of categories reflecting the existence of capital controls in the 1997 issue of the AREAER, there have been some refinements of the earlier measures (see Johnston and Tamirisa, 1998, and Miniane, 2004).

All of these measures, despite their increasing sophistication, suffer from a variety of similar shortcomings. First, they do not accurately reflect the degree of openness of the capital account because they are partially based on various restrictions associated with foreign exchange transactions that may not necessarily impede capital flows. Second, they do not capture the degree of enforcement of capital controls (or the effectiveness of that enforcement), which can change over time even if the legal restrictions themselves remain unchanged. Third, and most importantly, these measures do not always reflect the actual degree of integration of an economy into international capital markets, as we have already noted. As another example, China, despite its extensive regime of capital controls, has not been able to stop inflows of speculative capital in recent years.

In order to summarize existing methods to measure the financial openness of the country we can define two formal approaches (price differentials based measures and quantity based measures).

One approach has been to look at price-based measures of asset market integration. The logic is that, irrespective of the volume and direction of flows, true integration of capital markets should be reflected in common prices of similar financial instruments across national borders. While the logic is sound, there are serious practical problems in using such measures for emerging markets and even more so for low-income developing economies. Returns on financial instruments in these economies may incorporate a multitude of risk and liquidity premium that are difficult to quantify. For example, stocks of firms in many emerging market economies trade at low price earnings ratios due to investor concerns about corporate governance and contract problems.

Yet, it is not easy to separate this form of segmentation from differential pricing due to high project risk. In general, domestic financial markets may simply not be deep or liquid enough to allow for efficient arbitrage of price differentials.

Quantity based measures of financial integration (approaches based on actual capital flows) provide the best available measure of a country's integration with international financial markets. One issue is whether to measure integration using net or gross capital flows. Gross flows provide a relatively less volatile and more sensible picture of integration. Indeed, this measure has the advantage of capturing two-way flows which one would expect to see if economies were in fact sharing risk efficiently in a world with multiple financial instruments and agents with different risk profiles. Using the sum of gross inflows and outflows as a ratio to national GDP also yields a nice symmetry with the widely-used measure of trade openness, which is the sum of imports and exports as a ratio to GDP.

However, such annual flows tend to be quite volatile and are prone to measurement error. To mitigate these problems, it may be preferable to use a measure of the sum of gross stocks of foreign assets and liabilities as a ratio to GDP. These stocks are essentially just a refined cumulated version of the underlying flows corrected for valuation effects. This preserves the spirit of measuring de facto integration and obviates many of the problems associated with flow data. Moreover, for some purposes - particularly risk sharing - the stock measures are clearly more appropriate. For instance, if countries have large gross stocks of assets and liabilities, small exchange rate changes can have large valuation effects and serve as a mechanism for risk-sharing even if net asset positions are small.

3. Macroeconomic findings on effects of financial liberalization

In this section, we review macroeconomic evidence on the effects of financial liberalization in the three dimensions - growth, volatility and comovement (or correlation).

A. Effects on growth

As we have already noted, the simplest one-sector neoclassical framework suggests that capital flows liberalization should lead to flows of capital from capital-rich economies to capital-poor economies since, in the latter, the returns to capital should be higher. These flows should complement limited domestic saving in capital-poor economies and, by reducing the cost of capital, allow for increased investment. Certain types of financial flows could also generate technology spillovers and serve as a conduit for imbibing managerial and other forms of organizational expertise from more advanced economies.

There are also a number of indirect channels through which capital flows liberalization could enhance growth. It could help promote specialization by allowing for sharing of income risk, which could in turn increase productivity and growth as well. Financial flows could foster development of the domestic financial sector and, by imposing discipline on macroeconomic policies, lead to more stable policies.

We should note, however, that potential endogeneity between capital flows liberalization and growth remains a problematic issue even in studies that do find a positive association between these variables. This problem may ultimately be intractable if one relies solely on macroeconomic data; looking at more disaggregated data may be one way out. Another possibility, as we will discuss later, is that it is very difficult, even at a conceptual level, to make strong causal statements about the consequences of financial liberalization, independent of whether macro or micro data are used.

B. *Effects on macroeconomic volatility*

The effects of capital flows liberalization on output volatility are not obvious in theory. In principle, capital flows liberalization allows capital-poor countries to diversify away from their narrow production bases that are often agricultural or natural resource-dependent. This should reduce macroeconomic volatility. At a more advanced stage of development, however, trade and financial integration could simultaneously allow for enhanced specialization based on comparative advantage considerations. This could make countries more vulnerable to industry-specific shocks.

Theory does have a strong prediction, however, about the relationship between financial integration and consumption volatility. Since consumers and, by extension, economies are risk-averse, consumption theory tells us that they should desire to use financial markets to insure against income risk, thereby smoothing the effects of temporary idiosyncratic fluctuations in income growth on consumption growth. In theory, the benefits of international risk-sharing could be quite large. Lucas's (1987) claim that macroeconomic stabilization policies that reduce consumption volatility can have only minimal welfare benefits continues to be influential. Some authors have shown that, even within Lucas's framework, the higher volatility that developing countries experience implies that they can potentially reap large benefits from international risk-sharing arrangements.

Capital account liberalization is believed to have played an important role in fomenting financial crises and has been indicted by some observers as the proximate cause for the crises experienced by various emerging markets over the last decades. Interestingly, there is little empirical evidence to support the view that capital account liberalization by itself increases vulnerability to crises. While crisis episodes receive most of the attention, however, they are just particularly sharp manifestations of the more general phenomenon of macroeconomic volatility. Here the results are less favorable - there is no evidence that financial liberalization has delivered on the promised benefit of improved international risk sharing and reduced volatility of consumption.

Turning to volatility more broadly, there has been a well-documented trend decline in macroeconomic volatility in most of the major industrial economies since the mid-1980s, although the reasons for this decline are still a matter of debate. Output volatility seems to have been on a declining trend in emerging market and developing economies as well. However, the existing evidence based on papers using a variety of regression models, different country samples and time periods leads to the conclusion that there is no systematic empirical relationship between financial openness and output volatility, which is, in a sense, consistent with the predictions of theory.

C. Comovement

Another prediction of theory, related to the consumption smoothing issue, concerns the cross-country comovement of major macroeconomic aggregates. In theory, the effect of increased financial integration on cross-country correlations of output growth is uncertain, since it depends on the nature of shocks and specialization patterns. In any case, financial integration should in theory help countries diversify away country-specific risk and should, therefore, result in stronger comovement of consumption growth across countries. Thus, in parallel to the discussion of volatility, economic theory has clear implications for how financial integration should affect cross-country consumption correlations but not for correlations of output or income.

In summary, there is a strong presumption in theory that capital flows liberalization is good for growth and, although its effects on output volatility are unclear, it should unambiguously lead to reductions in the relative volatility of consumption (and increase the cross-country comovement of fluctuations in consumption).

4. The structure of capital flows and its effects

An alternative line of inquiry into the effects of financial liberalization is based on the notion that not all types of capital flows are created equal. Flows that have equity-like features - i.e., foreign direct investment (FDI) and portfolio equity flows - are not only presumed to be more stable and less prone to reversals, but are also believed to bring with them many of the indirect benefits of financial liberalization such as transfers of managerial and technological expertise. The evidence for the former proposition - that FDI and equity flows are more stable than debt financing - is far from conclusive.

In any case, portfolio debt flows have acquired black-sheep status, especially since currency and maturity mismatches related to external debt are seen as proximate determinants of many emerging market crises.

A. *Portfolio equity flows*

The rising importance of portfolio equity flows to emerging markets has motivated a number of researchers to examine the growth effects of equity market liberalizations. Most of the papers in this rapidly expanding literature suggest that portfolio equity flows have a significant positive impact on output growth. Whether the estimated growth effects (in macroeconomic data) of equity market liberalizations could be picking up the effects of other factors - especially other reforms that tend to accompany these liberalizations - remains, in our view, an open question. On the other hand, there is now a growing body of micro evidence (using industry- and firm-level data) supporting the macro evidence on the benefits of equity liberalizations. Some of these papers also document the empirical relevance of various theoretical channels linking equity market liberalization to economic growth - including through increases in investment growth and total factor productivity (TFP) growth.

B. *Foreign direct investment*

The relative importance of FDI flows has risen significantly in recent years, making it the most important form of private international financing for emerging market economies. There is a strong presumption in theory that FDI should yield more benefits than other types of financial flows since, in addition to augmenting domestic capital stock, it has a positive impact on productivity through transfers of technology and managerial expertise. It has also been argued that FDI tends to be the least volatile of the various types of capital flows, making countries less vulnerable to sudden stops or reversals of flows.

In parallel with the rapid growth of FDI flows, a large empirical literature has flourished seeking to find evidence in support of the theoretical benefits of these flows. Although the evidence has in general been mixed, recent studies, using more sophisticated methodologies and micro-level datasets, find more favorable evidence of benefits from FDI. More importantly, the literature has been reasonably successful in identifying the conditions necessary to help developing countries fully utilize the potential benefits of these flows.

C. *Debt flows*

Debt flows appear to be more volatile than other types of inflows and easily reversible in times of crises. Sudden reversals of international capital flows are more likely to occur among countries that rely relatively more on portfolio debt flows, including bank loans, and less on FDI. Moreover, short-term bank loans to developing countries are procyclical, i.e., they tend to increase during booms and rapidly decrease during economic slowdowns. The procyclical and highly volatile nature of these flows can magnify the adverse impact of negative shocks on economic growth.

Furthermore, opening up to debt flows can give easygoing governments and weakly supervised financial sectors a lot more room to increase their vulnerability to shocks.

Interestingly, countries with unfavorable conditions tend to rely more on short-term external debt denominated in foreign currencies as their main source of foreign capital. This creates vulnerabilities, especially when the domestic financial system through which this capital is intermediated is underdeveloped, poorly supervised, and subject to governance problems.

5. Organizing principles

To put together the disparate strands of evidence that we have assembled thus far, we now introduce a framework that may help reconcile some of the apparently inconsistent results in the literature and also shed some light on why empirical evidence at different levels of disaggregation may reach different conclusions.

A. Collateral benefits

A key component of our argument is that it is not just the capital inflows themselves, but what comes along with the capital inflows, that drives the benefits of financial liberalization for developing countries. There is considerable evidence, as we discuss later on, that financial integration serves as an important catalyst for a number of indirect benefits, which we term potential "collateral benefits" since they may not generally be the primary motivations for countries to undertake financial integration. These collateral benefits could include development of the domestic financial sector, improvements in institutions (defined broadly to include governance, the rule of law, etc.), better macroeconomic policies, etc. These collateral benefits then result in higher growth, usually through gains in allocate efficiency.

The empirical implications of this perspective are powerful. First of all, it suggests that the beneficial impact of financial integration on growth may take a while to show up because it operates through these indirect channels rather than just directly through financing of domestic investment. More importantly, it suggests that, in a regression framework, it may be difficult to disentangle the effects of financial integration if one includes measures of institutional quality, financial sector development, quality of macroeconomic policies etc. After all, it is these very channels through which financial integration generates growth benefits. This problem cannot be resolved simply by using a technique such as instrumental variables estimation; that would entirely miss the logic of the scheme above since our interest is in how financial integration affects growth through all channels, direct and indirect.

B. *Thresholds*

A large related literature has attempted to tackle the question of what initial conditions help prepare the ground for financial openness to generate good growth benefits for a country and lower the risks. There is plenty of evidence that premature opening of the capital account without having in place well-developed and well-supervised financial sectors, good institutions, and sound macroeconomic policies can hurt a country by making the structure of inflows unfavorable and by making the country vulnerable to sudden stops or reversals of flows. Furthermore, the process of globalization seems to proceed more smoothly when trade liberalization precedes financial integration. Thus, it is the interaction between financial liberalization and this set of initial conditions that determines growth and volatility outcomes.

Unfortunately, existing papers have identified only the importance of threshold effects in specific dimensions. There is as yet little work on the relative importance of different thresholds and the trade-offs among different threshold conditions. What would be most useful for a country contemplating liberalization of its capital account would be a composite threshold measure that would determine its preparedness to undertake this policy change. In the absence of such a measure, it is hard to determine when a country is ready for financial integration.

Our view is that, while the risks can never be totally avoided, there are ways to improve the benefit-risk calculus of financial liberalization. There is, however, unlikely to be a uniform approach to opening the capital account that will work well for all countries. Indeed, the collateral benefits perspective may provide a way for moving forward on capital account liberalization that takes into account individual country circumstances (initial conditions) as well as the relative priorities of different collateral benefits for that country.

C. *Implication: Collateral benefits increase productivity growth*

The collateral benefits that we have identified above should enhance efficiency and, by extension, TFP growth. Thus, our approach ties in nicely with the recent literature emphasizing the importance of TFP growth as the main driver of long-term growth. But there is as yet little empirical work looking at whether capital flows liberalization boosts TFP growth.

D. *Summary*

Our conceptual framework can be summarized as follows. The first point is that capital flows liberalization should generate a number of indirect but important benefits; the second is that these benefits should then boost growth. Indeed, these ancillary benefits could, in some ways, be more important than the direct effects of external financing on investment growth. The fact that well-developed and efficient financial sectors, good institutions, and sound macroeconomic policies contribute to higher growth is, in our view, relatively noncontroversial (although there may not be a consensus about the magnitude of these causal relationships).

Hence, we turn our attention next to building the case for the first piece of our argument - that capital flows liberalization has significant collateral benefits. As noted above, a implication of our reasoning is of course that these benefits should show up in TFP growth; this we leave to future research.

6. Collateral benefits of financial liberalization

Although financial liberalization is, in theory, supposed to work its magic through increased capital flows, there are, as discussed above, indirect benefits to undertaking financial liberalization that are arguably of greater potential importance than the direct benefits. We now review the evidence for three key areas in which the indirect benefits ought to be important - financial sector development, institutional quality, and macroeconomic policies.

Formal empirical evidence suggests strongly that financial integration boosts domestic financial market development, although this does not, of course, rule out the possibility that de facto financial integration is fostered by a well-developed financial sector. Although there is a strong presumption in the literature that financial liberalization improves institutional quality and governance, the empirical evidence - most of which is very recent - is limited. The evidence that financial liberalization disciplines macroeconomic policies is weak and fraught with a number of problems.

A. *Financial sector development*

An area that has received a fair amount of attention is the issue of whether international financial flows indeed serve as an important catalyst for domestic financial market development, as reflected in both straightforward measures of the size of the banking sector and equity markets as well as broader concepts of financial market development, including supervision and regulation.

Considering the positive effects of financial liberalization we can assume that foreign ownership of banks can, in principle, generate a variety of benefits. First, foreign bank participation can make a country's access to international financial markets easier. Second, it can help improve the regulatory and supervisory frameworks of the domestic banking industry. Third, it can improve the quality of loans as the influence of the government on the financial sector should decline in more open economies. Fourth, in practice, foreign banks may introduce new financial instruments and technologies which can increase competition and improve the quality of financial services. The presence of foreign banks can also provide a safety valve when depositors become worried about the solvency of domestic banks.

Analyses based on a variety of techniques, including country case studies, do seem to support the notion that increased foreign bank presence raises competition and appears to lead to a decline in both bank overhead costs and profits. As for equity markets, the overwhelming theoretical presumption is that foreign entry increases efficiency and the evidence seems to support this channel.

B. Institutional quality and governance

Another focus of the recent literature on "collateral benefits" has been on the relationship between financial liberalization and corporate governance. More recent work has started to examine the implications of financial liberalization for broader public governance, as well as for the relationship between corporate and public governance. However, the evidence on these two latter points is rather limited at this stage.

Corporate governance

Foreign investors may have skills and information technologies that allow them to monitor management better than local investors. Globalization also transforms the market for corporate control - it increases the monitoring of managers both by existing shareholders and potential external bidders.

The empirical evidence on financial liberalization and corporate governance, while still relatively sparse, does seem to support the notion that increased foreign competition leads to better corporate governance. Financial-sector FDI from well-regulated and well-supervised source countries can support emerging market institutional development and governance. The corporate governance problems associated with this phenomenon can be mitigated by financial liberalization, in part by raising expectations and demands among local investors through exposure to better standards of governance.

Public governance and corruption

There is a nascent body of research on the linkage between financial liberalization and public governance (as measured by corruption, red tape, transparency of government policies, etc.). Of course, public and corporate governance issues are deeply interconnected.

Political economy considerations enter into the picture as well, with financial integration helping to shake loose power structures that allow certain groups to thwart reforms. When an economy allows cross-border trade and financial flows, it weakens incumbents' opposition to reforms and facilitates financial sector development.

C. *Macroeconomic policies*

We have already discussed how capital account liberalization might impose discipline on macroeconomic policies since it increases the potential costs associated with weak policies and enhances the benefits of good ones. Precisely because capital account liberalization makes a country more vulnerable to sudden shifts in global investor sentiment, it can serve as a signal of commitment to better macroeconomic policies. Indeed, even skeptics about the benefits of financial integration have accepted that this is likely to be one of the most important potential benefits of capital account liberalization. Unfortunately, while the empirical evidence is suggestive, it remains sparse.

Monetary and fiscal policies

The fact that the recent period of financial liberalization has been marked by disinflationary trends in virtually all economies around the world has led some authors to contend that financial liberalization improves monetary policy outcomes. Globalization has fostered rising competition in goods and labor markets (which reduces price levels and also increases wage and price flexibility), thereby making the real effects of unanticipated monetary policy actions smaller and more transitory. Consequently, there is less incentive for central banks to pursue inflationary policies (and less incentive for politicians to pressure them to do so).

In any event, financial openness appears to complicate monetary policy implementation in developing countries. For instance, globalization increases uncertainty about the output gap (more exposure to productivity shocks emanating abroad), the inflation gap (through the effects of inflows on asset prices) and the monetary transmission mechanism (central banks have less control over the operations of domestic commercial banks). Whether these factors improve monetary policy outcomes is, however, not clear, although the fact that so many emerging markets have successfully instituted more independent, inflation-focused central banks, is quite noteworthy.

Countries with higher levels of financial openness are more likely to generate better monetary policy outcomes in terms of lower inflation. However, there is no evidence of a systematic relationship between financial openness and better fiscal policies.

7. Thresholds effects in outcomes of financial liberalization

We turn now to a fuller discussion of four sets of structural and policy-related features that appear to interact with financial liberalization in important ways to determine the eventual macroeconomic outcomes and also influence the short-run tradeoffs. This list includes financial sector development, overall institutional quality, the macroeconomic policy framework and trade integration. Each of these factors has in its own right been shown to influence growth, but our interest here is in the narrower question of how they affect the outcomes (in terms of growth and volatility) of financial integration. As we noted earlier, there is a great deal of similarity between the list of collateral benefits of financial integration and the list of threshold conditions that we discuss below. Indeed, this discussion highlights the difficulties involved in trying to make strong causal statements about the effects of financial integration.

A. *Interaction between financial sector development and financial liberalization*

Recent research provides empirical evidence supportive of the view that financial sector development amplifies the growth benefits associated with FDI flows.

Financial sector development also improves the growth benefits of equity flows. Financial market development enhances the growth benefits of equity market liberalizations. Oddly, however, the results are weaker when they use equity market turnover rather than the ratio of private credit to GDP to measure financial development.

Another major benefit of financial sector development is its positive impact on macroeconomic stability, which in turn has implications for the volume and composition of capital flows. In theory, by expanding the scope of diversification possibilities, developed financial markets moderate the effects of shocks and help reduce macroeconomic volatility. Economic crises in emerging markets have repeatedly demonstrated the importance of deep and well-supervised domestic financial markets during the process of financial integration.

B. *Role of institutions and governance in driving growth benefits of financial integration*

Institutional quality appears to play an important role in determining not just the outcomes of financial integration but the level of de facto integration itself.

Furthermore, institutional quality also appears to have a strong influence on the composition of inflows into developing economies, which is another channel through which it affects macroeconomic outcomes.

That institutional quality is the most important factor determining capital flows to developing countries. Financial liberalization could even result in capital flows from poor (and poorly governed) countries to rich ones. Governance and institutional indicators seem to have a quantitatively significant influence on FDI inflows.

The composition of inflows seems to have strong predictive power for currency crashes. In particular, the share of FDI in a country's total capital inflows is negatively associated with the probability of a currency crisis. Other dimensions of composition are the maturity structure of external debt (the greater the share of short-term debt, the more likely a crisis), and the currency denomination of external debt (the greater the share of foreign currency debt, the more likely a crisis).

C. *Macroeconomic policy and financial liberalization*

There is a large literature tying the quality of domestic macroeconomic policies to the level and composition of inflows as well as vulnerability to crises. A number of papers focusing on sequencing of liberalization argue that capital account liberalization is more likely to be successful if it is implemented in an environment supported by sound fiscal, monetary, and exchange rate policies.

Exchange rate regime

Fixed exchange rate regimes in principle provide a transparent and credible monetary anchor, an important consideration for many developing economies. But it comes at a significant cost - the loss of monetary independence. The trade-off between monetary stability and independence is one where it is difficult to draw general prescriptive conclusions. What the evidence does show is that an open capital account puts a greater burden on other policies and structural features of the economy (e.g., product and labor market flexibility) to support a fixed exchange rate. In particular, for economies with weak financial systems, an open capital account and a fixed exchange rate regime are not an auspicious combination. Indeed, there is a compelling case to be made that rigid exchange rate regimes can make a country more vulnerable to crises when it opens its capital markets. It can be argued that, in the absence of de facto or de jure fixed rates, most of the crises of the 1990s, from Mexico to Asia to Russia to Brazil, might have been much less virulent, or might even have been avoided entirely.

However, the literature does not imply that fixed exchange rates are necessarily a problem for countries that are at early stages of domestic financial development or that they are inappropriate prior to international capital market liberalization. Poorer developing countries seem to enjoy faster growth and lower inflation with relatively fixed rates.

For emerging markets, standard measures of macroeconomic performance are not systematically associated with the nature of the exchange rate regime, but the likelihood of financial crises is higher for countries with pegged or nearly pegged exchange rates.

As a short-term strategy for developing economies, we may recommends a combination of a soft peg or managed exchange rate regime along with well-designed limits on capital mobility. Maintaining either a free float or a hard peg along with capital account openness requires a strong commitment to fostering good institutions, especially with respect to financial market regulation and supervision.

D. Relation between trade openness and financial openness

Trade integration appears to have a better cost-benefit tradeoff than financial integration. It also reduces the probability of crises associated with financial openness and mitigates the costs of such crises if they do occur. Thus, the recent literature strengthens the case made by the old sequencing literature for putting trade liberalization ahead of financial integration.

Recent research shows how interactions between trade and financial integration could affect macroeconomic outcomes. Trade integration reduces the likelihood of financial crises associated with sudden stops and current account reversals. Less open economies have to undergo larger real exchange rate depreciations for a given current account adjustment, face more severe balance sheet effects stemming from these depreciations, and, as a result, are more likely to default on their debt obligations. This creates a link between the probability of sudden stops and the likelihood of default, implying that more open economies are less vulnerable to sudden stops because of their lower probability of default.

Some papers argue that trade integration should play an important role in mitigating the adverse growth effects of financial crises and in facilitating recoveries from crises. The real costs of financial crises depend on the degree of openness of an economy since less open economies have to go through larger contractions of aggregate demand and/or larger changes to the real exchange rate change in order to adjust to large shocks. Trade integration could help a developing economy to export its way out of a recession since a given exchange rate depreciation would have a larger impact on its export revenues than in a less open economy. Export revenues could also help service external debt, which is quite substantial in a number of developing countries. These predictions are supported by recent empirical research showing that, among countries that have experienced sudden stops and current account reversals, those that are more open to trade suffer smaller adverse growth effects.

8. Conclusion

Measuring the extent of a country's integration into global financial markets is an important but complicated issue. In particular, the distinction between de jure and de facto integration appears to matter a great deal in understanding the macroeconomic implications of financial liberalization.

It is notable that whereas the majority of cross-country empirical studies are unable to find robust evidence in support of the growth benefits of capital account liberalization, studies tend to find more positive results. At the same time, using either approach, there is little systematic evidence that capital account liberalization, by itself, increases vulnerability to financial crises.

The composition of capital inflows has a substantial influence on the growth benefits of financial liberalization for developing countries, although the evidence is far from decisive. Studies based on both macroeconomic and microeconomic (industry- or firm-level) data find that equity market liberalizations have positive effects on output growth. Interestingly, despite the general consensus that FDI is the form of capital inflow most likely to spin off positive growth benefits, these benefits are harder to detect in aggregate data than is the case for equity flows. Fortunately, recent work using micro data is starting to confirm that FDI flows do have significantly positive effects on output and productivity growth, especially through spillover effects associated with vertical linkages. Overall, studies using micro data are better able to detect the growth and productivity gains stemming from financial integration as well as the distortionary effects of capital controls.

In addition to the traditional channels such as efficient allocation of capital and expanded international risk-sharing opportunities, the growth and stability benefits of financial liberalization are also realized through a broad set of "collateral benefits" - financial market development, better institutions and governance, and macroeconomic discipline. These collateral benefits affect growth and stability dynamics indirectly, implying that the associated macroeconomic gains may not be fully evident in the short run and may be difficult to uncover in cross-country regressions.

Various threshold effects play important roles in shaping the macroeconomic outcomes of financial liberalization. Some key thresholds are related to the level of development of domestic financial markets, the quality of institutions and corporate governance, the nature of macroeconomic policies (including the exchange rate regime), and the extent of openness to trade. Recent research suggests that countries meeting these threshold conditions are better able to reap the growth and stability benefits of financial liberalization.

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Makroekonomski aspekti finansijske liberalizacije

Rezime: Savremena literatura detaljno opisuje pozitivne i negativne aspekte finansijske liberalizacije u zemljama u razvoju i privredama sa tržištem u razvoju. Uprkos tome, nije jednostavno na jasan način sumirati konačne efekte koje finansijska integracija ima na određene zemlje. Na primer, neadekvatan je argument koji ističe razvojne koristi od liberalizacije kapitalnih računa, imajući u vidu finansijske krize u zemljama u razvoju krajem prošlog veka. S druge strane, mnogi autori (naročito u oblasti finansijske literature) ističu da liberalizacija tržišta akcija značajno doprinosi ekonomskom rastu. Prisutni su i primeri na mikroekonomskom nivou (na nivou preduzeća ili industrijske grane) gde je međunarodna finansijska integracija donela određene koristi integrisanim preduzećima, pri čemu su restrikcije tokova kapitala izazvale distorzione efekte. Ovaj rad izučava makroekonomske efekte liberalizacije tokova kapitala.

Ključne reči: Liberalizacija računa kapitala, Finansijska liberalizacija, Finansijska integracije

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