

**RAJIB
BHATTACHARYYA**

**THE GAINS
AND PAINS
OF FINANCIAL
INTEGRATION
AND TRADE
LIBERALIZATION**

**LESSONS FROM
EMERGING
ECONOMIES**

The Gains and Pains of Financial Integration and Trade Liberalization

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The Gains and Pains of Financial Integration and Trade Liberalization: Lessons from Emerging Economies

BY

RAJIB BHATTACHARYYA

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Foreword

Trade liberalization and financial integration are the two most important pillars on which the global economy rests today, or to change the metaphor a bit, the two most important wheels on which the global economy currently moves. And through ups and downs of booms and recessions and for better or worse, they are likely to remain important in the foreseeable future. Given the importance of the twin phenomena, it is hardly surprising that economists have devoted an enormous amount of attention to the discussion of their nature and implications. The implications touch every aspect of life of the representative citizens of all types of countries across the world. This is particularly salient for those economies in the erstwhile Third World who have embarked on growth trajectories using a very wide spectrum of market-friendly reforms. A big literature has grown over the past decades chronicling the experience of these emerging economies. Under the circumstances, any new book on the topic needs to justify itself on grounds of coverage and quality. In my judgment, the present volume is able to do so successfully on both counts.

The coverage is truly impressive, ranging over issues like the link between globalization and financial integration and growth via FDI and current account trade, fiscal and monetary policies and inequalities in a regime of openness, financial development and financial market integration in India, capital account convertibility in India and China, the two Asian giants, the economic integration of Australia with the developing nations, India and the ASEAN, and so on. Owing to their importance, many of these issues have already received much attention. But by choosing carefully an international array of authors who are active researchers in their fields of study, the editor has succeeded to add value to a considerable literature.

Only wide coverage cannot, of course, ensure quality. Coverage has been adequately backed up by good economic reasoning and use of rigorous statistical methods applied to up-to-date data. Good quality is the result. The editor deserves to be congratulated for a job done well. I am particularly happy because he is my old student.

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After a long and persistent endeavor starting from conceptualization of the theme, selection of papers, editing, and ultimate publication of the proposed edited book entitled *The Gains and Pains of Financial Integration and Trade Liberalization: Lessons from Emerging Economies*, I really feel delighted to spell out that this book is a unique compilation of best-quality contributions from authors and researchers from all over the world. I really feel proud as an editor that the authors of this book have provided immense support, cooperation, and extended their whole hearted helping hand to make this project a successful one. Hence, it would be unjustified if the contributors are not acknowledged for their valuable contributions. I would also like to express my heartiest thanks to other academicians and resource persons of the society associated with this project.

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Dr Rajib Bhattacharyya
Editor

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Introduction

Rajib Bhattacharyya

The acceleration of economic growth, its stability, and long-run sustainability in globalized economic regime, depends heavily on its two pillars, viz trade and finance. So, over the last three decades the benefits and costs of trade liberalization and financial integration are most intensely debated topics which have gathered momentum in the present-day world. Sound macroeconomic stability, financial integration and development, acceleration of international trade, and strict control over exchange rates volatility are the potential channels through which integration enhances growth and long-run sustenance. The future of the emerging nations of Asia and the fate of the developed advanced countries heavily depends on whether they can reap the benefits of this integrated and globalized world. The steady upsurge in the world economic activity (World Economic Outlook, October 2017), in terms of strengthening of the global financial system, boost in market confidence, and regulatory enhancements has created a positive outlook in the global economic scenario. But at the same time, the environment of continuing monetary accommodation – necessary to support activity and boost inflation – is also leading to rising asset valuations and higher leverage. Financial stability risks are shifting from the banking system toward nonbank and market sectors of the financial system. This calls for proper balancing of monetary, trade, and exchange policy to avoid financial risks.

There are people (including Stanley Fischer and Lawrence Summers) who believe that increased openness to capital flows has, in general, proved essential for countries seeking to rise from lower- to middle-income status and removal of restriction on trade and capital flows may usher huge benefits by easing various constraints. But on the contrary, there are others (for example, Dani Rodrik, Jagdish Bhagwati, and Joseph Stiglitz) who argue that deregulation of financial markets would have devastating effect on emerging market economies (EMEs) in the long run, and unfettered capital flows may disrupt global financial stability, leading to calls for capital controls and curbs on international asset trade. Empirically, EMEs have clearly registered better growth outcomes, on average, than those countries that have not participated in trade liberalization and financial globalization. Yet there are many cross-country studies which failed to establish a positive link between capital account liberalization and growth. The development of BRICS and Britain's exit from the European Union (EU) has

also raised several questions to the future of trade openness and financial globalization.

The present book attempts to examine the gains and pains of trade openness and financial integration and its impact on the world economy with special emphasis on emerging economies. It aims to develop both the theoretical foundations and rigorous empirical analysis to arrive at an evaluation of these outward-oriented commercial policies adopted by both the developed and developing nations in the recent past. Impact of trade openness and financial integration on growth and output volatility, dynamic panel models, measurement of financial integration, digital integration, role of foreign direct investment (FDI), fiscal and monetary policy, effect on income inequality and poverty reduction, impact balance of payments (BOP), current and capital account convertibility, risk perceptions in the stock market, inflation and exchange rate movements, and risks of money laundering are some important issues which are covered in this book.

In view of the above perspective, the present book tries to touch upon a large spectrum of issues which may be considered as important as well as critical in the sphere of trade liberalization and financial integration in the context of global scenario.

Chapter 1 attempts to explore insights on how trade and financial integration affect the relationship between growth and output volatility using data from selected Africa countries. It shows that the relationship between growth and financial integration and investment volatility is stronger in the long run than in the short run while the consumption volatility impact of trade openness is higher in the long run than in the short run, suggestive that countries that are more open to trade appear to face less severe trade-off between growth and volatility.

Chapter 2 has strived to investigate whether globalization and financial integration influence at all the growth of incomes of the commonly accepted three top emerging economies, Brazil, China, and India. The study uses unit roots test, Johansen cointegration test, and causality test in a Vector Autoregression (VAR) set up for the period 1990–2016 to find long-run associations and short-run dynamics among the variables.

Chapter 3 structured a “Latent Variable Modeling” of a Multidimensional Index of economic and financial integration of Australia with the Arab and Southeast Asian emerging economies. A cross section of 140 countries was taken in consideration for the year 2011. In terms of the new index 140 nations were ranked and it was found Australia can lead these countries from Southeast Asia and the Middle East to form closer ties with the global economy.

Chapter 4 tried to analyze the long-run as well as short-run relationship between quarterly growth rate of GDP with the stock market, real market, and money market macroeconomic variables in India and Brazil during the period from first quarter of 1996–1997 to second quarter of 2018–2019. The empirical analysis indicates that just like India, liberalization of the financial market and allowing foreign capital inflows have been beneficial for the economy of Brazil in the long run.

Chapter 5 focuses on the examination of the impact of trade openness and financial openness on economic growth in 30 EMEs covering Asia, Latin America, and Europe. The direct and interaction effect of both the openness variables on economic growth in these markets is investigated using data from 2000 to 2017 taken from World Development Indicators of the World Bank with the help of a dynamic panel approach.

Chapter 6 attempts to investigate and analyze the worldwide long-run dynamics among FDI inflow, international trade, and economic growth using the data for top 20 FDI hosting countries sourced from the United Nations Conference on Trade and Development (UNCTAD) in a dynamic panel frame over the period of 1991–2016 empirically in the era of globalization. Empirical findings suggest that inflows of FDI significantly promote economic growth in selected economies.

Chapter 7 aims to determine the existence of simultaneous relationship between economic growth, income inequality, fiscal policy, and total trade of the 13 EMEs as a group for the period 1980–2010. The existence of a two-way nonlinear relationship is highlighted between economic growth, income inequality, and total trade.

Chapter 8 seeks to investigate the increasing accessibility and relationship between digital (*e-economy*) financial integration and poverty alleviation since the era of structural adjustment programs in sub-Sahara Africa with Ghana as a case study. The study suggests that the processes of digitalization, financial sector integration, and inclusion becomes increasingly contestable, decomposable, and reconfigurable in the context of poverty alleviation.

Chapter 9 evaluates the evolution of two and a half decades (1990–1991 to 2014–2015) of India's BOP dynamics in the context of global changes and exchange rate fluctuations and instability. It also points out several merits and oddities over its long journey since its liberalization era.

Chapter 10 attempts to examine the impact of major political risk factors in the EMEs. It demonstrates that government stability, socioeconomic conditions, religious tension, and bureaucracy quality have a positive impact on FDI inflows of emerging countries, whereas internal conflict and law and order have negative impact on FDI inflows of these countries. Stable government is more attractive to the foreign investors.

Chapter 11 seeks to analyze the development across the length and breadth of the Indian financial system in the postreform period, based on the "Flow of Funds" accounts estimates by the RBI. Besides, the chapter also analyzes the integration of the Indian capital market with the stock markets of US, UK, Japan, China, Hong Kong, and Singapore using the movements in their stock prices during 1998–2015.

Chapter 12 analyzes whether the developed financial system promotes the financial integration or the financial integration induces the authority to develop the financial system. This study is based on the selected Asian countries over the period 2001–2016. Empirical evidence support a significant positive association between the indicators of financial development and financial integration.

Chapter 13 tries to focus mostly on the pros and cons of financial integration and trade liberalization and the contributing factors responsible for trade and

financial integrations leading to comovement and cointegration in emerging stock market index represented by Nifty together with DJI and N225 among the emerging countries.

Chapter 14 addresses the major source of inflation in India – the import of intermediate inputs. In the modern globalized world, where India is deeply integrated with the world economy, exchange rate affects inflation through various channels. Using the cointegration framework, this chapter finds considerable evidence of imported inflation in the long run, almost 40%–74% for Consumer Price Index for Industrial Workers (CPI-IW).

Chapter 15 depicts the critical analysis of both India and China's approach to the capital account liberalization program in the backdrop of the recent financial crises. Using a macroempiric model, this study tries to answer whether every member country in the IMF should hurriedly go for capital account convertibility or not.

Chapter 16 develops a macrotheoretic framework to analyze money laundering in the form of tax evasion by individuals in an economy in the events of financial autarky and free trade. In other words, it is a theoretical model which allows us to examine if movement from autarky to a state of financial integration whets the degree of financial malpractice like money laundering.

Chapter 17 is based on a strategic analysis that seeks to determine the impact of Japanese FDI in manufacturing in Mexico in terms of technological spills that occur in the sector. In addition, it also investigates the flaws that do not allow technological spillovers generated, if any.

Chapter 18 seeks to survey all the available studies (viz De jure and De facto) that try to measure the magnitude of cross-country integration. It arrives at a conclusion that there is no accepted single universal index to measure financial integration, each actually having its own pros and cons.

Chapter 19 attempts to examine India's trade prospects with the ASEAN-5 (Indonesia, Malaysia, Thailand, Philippines, and Vietnam) particularly in merchandise trade. It also tries to identify new products that India can export to the ASEAN, which will increase its share in ASEAN's market.

Chapter 20 portrays the major impact of trade liberalization and trade integration on the Vietnamese economy. It also points out the structural changes that took place in the Vietnamese economy due to liberalization. The effect that the various policy and free trade agreement (FTA) that Vietnam had after joining the WTO has been analyzed through this study.

Chapter 1

How Do Trade Openness and Financial Integration Affect Growth and Output Volatility?

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Abstract

This study is motivated by the fact that even though many African countries have witnessed rapid growth, they have also experienced high volatility in the form of severe financial crises, especially in the last two decades. These developments naturally lead to the issue of whether, in a more integrated global economy, the relationship between growth and output volatility has changed. The phenomena have also raised questions on whether the growth–output volatility relationship can be linked to the growing pains seemingly associated with rising trade and financial integration. This chapter attempts to provide answer to these questions by providing insights on how trade and financial integration affect the relationship between growth and output volatility using data from selected Africa countries. The study explores in detail the relationship between growth and the volatility of output components (consumption and investment). Our main result is that there is a positive growth and output volatility impact of trade openness and integration with the international financial market. The relationship between growth and financial integration and investment volatility is stronger in the long run than in the short run, while the consumption volatility impact of trade openness is higher in the long run than in the short run, suggesting that countries that are more open to trade appear to face less severe trade-off between growth and volatility.

Keywords: Trade openness; financial integration; financial openness; financial market development; financial liberalization; real sector growth; macroeconomic performance

JEL Classification: C33; F15; F36; G28

Introduction

Globalization, though not a new phenomenon, the depth and breadth today is unprecedented and has given rise to liberalization in the areas of trade and finance which has also given birth to trade openness, financial globalization, and financial integration (Arestis, Demetriades, Fattouh, & Mouratidis, 2002; Asongu & De Moor, 2015; Baltagi, Demetriades, & Law, 2009). Financial globalization and financial integration are closely related, but in principle they are treated as different concepts. In its general connotation, financial globalization refers to increasing global linkages established through international financial flows, while financial integration refers to specific country's affiliation to international capital markets. A country pursuing capital account liberalization is said to be seeking financial integration with the international financial market through financial openness, whereas, financial openness is the means to set the goal of financial integration (Le, 2000; Mireku, Agvei, & Domeher, 2017). It can therefore be argued that financial openness is necessary but might not be a sufficient means for achieving financial integration because financial integration is judged through its impact of capital flows. Capital flows are conditioned by country-specific prerequisites such as domestic financial development and quality of institutions, and in turn affect the economic growth. Sahoo, Rao, and Rath (2019) further add that apart from the fact that financial integration increases output volatility, it also induces investment activities and hence reduces output volatility. Although the evidence is mixed, what is unequivocally certain is that financial integration definitely has a bearing on how the economy responds to policy shocks and output volatility.

Motivated by liberalization, there has been a surge in the volumes of cross-country trade and financial flows since the mid-1980s. While a greater number of developed countries have experienced spread of trade linkages, only a few of emerging economies have undergone significant financial integration. Although many of these economies have experienced rapid growth, they have also been subjected to high volatility in the form of severe financial crises experienced by many of them in the last three decades (De la Torre, Eduardo, & Schmukler, 2002). These developments gave rise to the question of whether, in a more integrated global economy, the relationship between growth and volatility has changed. An examination of the patterns of macroeconomic volatility also reveals that in the last two decades, average output growth and volatility have been declining in developed countries. Meanwhile, both emerging and OECD countries witnessed a decline in their average output growth rates in the 1980s and improved in the 1990s, although growth remained below the corresponding levels in the 1970s. The evolution of volatility is less similar across these two groups, with emerging economies experiencing a small increase in volatility in the 1980s, while OECD countries had a significant decline in their volatility in each of the last two decades (Turnovsky & Chattopadhyay, 2002). The changes that have also occurred in the relative vulnerability of developed and developing economies to external crises also raise the question that relationship between growth and volatility is influenced by the pains associated with trade openness and financial integration.

The importance of trade openness in promoting growth has been well emphasized in literature. Theoretically, the link between trade openness and economic growth volatility has been advanced through the compensation hypothesis which postulates that economic growth volatility is the attendant consequence of exposure to international markets. The proponents of the theory contend that trade openness leads to economic volatility in the domestic economy. It assumes that economies with larger public sectors tend to be more opened and susceptible to economic shocks due to the likelihood of external risk to government spending. The stand of [Down \(2007\)](#) and [Di Giovanni and Levchenko \(2009\)](#) was that the expansion of international trade into more stable and larger markets facilitates risk sharing and promotes economic stability. An opposing view based on economic theory alludes that smaller economies have higher tendencies of greater volatility than larger economies which exacerbate their level of insecurity in the global market.

Increased financial flows influence growth through various channels. Even though [Edison et al. \(2002\)](#) was not able to establish a clear link between financial integration and economic growth empirically, the findings of [Sachs and Warner \(1995\)](#), [Frankel and Romer \(1999\)](#), [Dollar and Kraay \(2003\)](#), and [Wacziarg and Welch \(2003\)](#) suggest that openness to trade has a positive impact on growth. Some of the findings have been challenged by [Rodriguez and Rodrik \(2000\)](#). In a review of empirical thesis by [Prasad, Rogoff, Shang-Jin, and Kose \(2003\)](#), the principal conclusion that emerged is that many developing economies with a high degree of financial integration have experienced higher growth rates. It is, however, difficult to establish a robust causal relationship between the degree of financial integration and output growth performance. The evidence provided suggests that low to moderate levels of financial integration may have made some countries subject to greater volatility of consumption relative to that of output. [Mireku et al. \(2017\)](#) investigated the impact of trade openness on economic growth volatility of Ghana from 1970 to 2013, using cointegration and error correction techniques. It was found that both the short-run and long-run economic growth volatility are positively influenced by changes in trade openness. Volatility in domestic credit to private sector, shocks after the economic liberalization, and financial openness contributed negative to economic growth volatility in the short run, an indication that developing economies should take into consideration their own realities in their trade policies to limit economic growth volatility. Drawing heavily from four financial developments – growth nexus theories, [Adedoyin, Nwanji, Asaleye, and Ahmed \(2016\)](#) used the ARDL bound estimation technique to examine the existence of cointegration among economic growth, financial development, and trade openness in Nigeria. Findings show that a two-way cointegration exists between economic growth and financial development, on the one hand, and between economic growth and trade openness, on the other hand. This outcome supports the notion that to achieve economic growth, it is necessary to pursue strong financial development and increase trade openness.

Collaborating [Kalemli-Ozcan et al. \(2003\)](#), [Kose, Prasad, and Terrones \(2005\)](#) affirm that the impact of increased trade and financial flows on output volatility

largely depends on the composition of the flows, patterns of specialization, the sources of shocks, and level of technology. In developing countries, especially those with poor capital, financial integration could help lower the volatility of macroeconomic fluctuations by offering opportunities to access capital that can help diversify the economy. In this regard, increasing financial integration could lead to specialization of production based on comparative advantage which leaves the economy more vulnerable to industry-specific shocks. More importantly, sudden changes in the direction of capital flows could also result in output volatility because majority does not have enough financial sectors to cope with such. Studies (Easterly et al., 2001; Kose et al., 2003a) demonstrate that increase in the degree of trade openness leads to higher output volatility, especially in developing countries, while Buch et al. (2002) and Bekaert et al. (2001a, 2001b) find that domestic equity market liberalizations are associated with lower volatility of output growth. Further evidence was provided by IMF (2002) that financial openness is associated with lower output volatility. Kose et al. (2003a) found that financial integration has no significant effect on output volatility. Using panel data covering 1975–1999 from 93 countries, Alessandra (2007) provides empirical evidence that financial integration has a positive direct effect on productivity, while it accelerates capital accumulation indirectly in the long run, since capital is enhanced by productivity. Such episodes depress economic growth, though they are triggered by financial integration.

Whether volatility and growth should be investigated independently, rather than related phenomena, has also been the subject of debate. Studies in the stochastic dynamic business cycle variant have propounded the view that the distinction between trend and cycles is rather artificial since both growth and fluctuations are driven by the same set of shocks. However, as opined by Jones, Manuelli, and Stacchetti (2000), it is difficult to derive a clear implication from these models about the relationship between volatility and growth. Mendoza (1997) and Saaed, & Hussain, (2015) show that, under certain assumptions, macroeconomic volatility can have a negative effect on growth. On the contrary, some authors have argued that macroeconomic volatility could have a substantial positive impact on growth. Ulasan (2015) examines the nexus between trade openness and growth in a dynamic panel data framework using various openness indicators to affirm that lower trade barriers are not associated with higher growth. Similarly, Abubaker (2015) investigates the impact of trade openness on output volatility, and how this impact may be affected by the country's level of development, using a panel data set for 33 countries. Controlling for specific country and period-specific effects, the result had it trade openness increases the output volatility while output volatility of countries with a higher level of development is less affected by trade openness.

Empirical study on the interaction between output volatility and growth began with the seminal works of Kormendi and Maguire (1985) and Grier and Tullock (1989). In their respective studies, it was established that output volatility and economic growth are positively correlated. The studies were subsequently extended by Ramey and Ramey (1995) with a contradicting outcome that negative correlation exists between output volatility and economic growth. Using