

ECONOMIC AREAS UNDER FINANCIAL STABILITY

COMPLETE VOLUMES ON THEORY AND PRACTICE OF FINANCIAL STABILITY

Volume 1: Understanding Financial Stability

Volume 2: The Banking Sector under Financial Stability

Volume 3: The Corporate, Real Estate, Household, Government and Non-bank Financial Sectors under Financial Stability

Volume 4: Economic Areas under Financial Stability

Volume 5: Tools and Techniques for Financial Stability Analysis

Praise for *The Theory and Practice of Financial Stability*

Indranarain Ramlall's proposal is a great attempt at giving a comprehensive view of financial stability from a theoretical, practical and policy perspective. It aims at providing future students with the tools to understand the framework in which financial stability is assessed and understood today by international organisations and central banks across the world. To my knowledge, this is the only book that covers such a wide range of topics related to financial stability. It, therefore, has the potential to become a good reference book on the topic. I believe that Indranarain Ramlall has made a great proposal to provide a 'big picture view' on financial stability. I look forward to reading the textbook!

Celine Tcheng, Central Bank of France

Financial stability has become a major concern for central banks, after the 2008 global financial crisis. More and more research is tackling topics regarding the role of the financial system in macroeconomic models and the implementation of macroprudential policy. Therefore, a comprehensive overlook of financial stability issues, such as the one offered by *The Theory and Practice of Financial Stability* can prove particularly useful for experts working in the financial system, central bankers included. The textbook covers a diverse set of topics from policy matters to risk assessment analysis.

Elena Banu, Central Bank of Romania

This book is a comprehensive work on one of the most actual topics in the aftermath of the Great Recession. It covers a wide range of topics on financial stability complementing theoretical frameworks with practical examples.

Starting with a conceptual description on financial stability, the book overviews a history of the major financial crises and Basel regulation rules. Particularly useful is an inquiry of the financial stability perspectives across different asset classes and economy sectors. Another beneficial feature of this book is a complete oversight of stress testing methodologies.

The book is a thorough compilation of topics on financial stability and definitely deserves a place on the bookshelves of central bankers, government and private institutions' officials.

Vaidotas Sumskis, Bank of Lithuania

Dr. Indranarain's book is an actual textbook for interpreting interrelations between all aspects and sectors of the international economy and will surely be a highly useful tool for credit institutions, investors, practitioners as well as academics. From a Central Bank's point of view this book provides an integrated approach to macroeconomic environment and the interactions between the various factors and an actual tool for assessing and measuring leading circumstances and indicators that affect financial stability and may cause vulnerabilities.

Vasiliki Vlachostergiou, Central Bank of Greece

This is a monumental work! I didn't find anything missing. I think it will be useful for students, economic and finance professionals and policymakers.

Christophe Andre, OECD

Financial stability was always a priority for financial sector regulators and it has surpassed other objectives since the global financial crisis. Given various complexities associated with the financial stability and rapid developments over time, existing literature tends to deal with specific aspects of financial stability. It is very difficult to get a comprehensive book dealing with the wide range of concepts, different segments of financial sector, ever increasing variety of financial instruments and regulations associated with financial stability. The current book is a very good attempt to fill this gap through its comprehensive coverage of almost the entire gamut of financial stability related topics. This book should be useful for financial sector regulators, related ministries in the governments, researchers, multilateral institutions, other financial sector stakeholders and general public who are interested to know the complexities of the financial sector and financial stability.

Ajay Prakash-an expert in Financial Stability

THE THEORY AND PRACTICE OF FINANCIAL STABILITY
VOLUME 4

ECONOMIC AREAS UNDER FINANCIAL STABILITY

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List of Acronyms

BIS	Bank for International Settlement
CA	Current Account
CHAPS	Clearing House Automated Payments System
CLS	Continuous Linked Settlement
COFER	Currency Composition of Official Foreign Exchange Reserves
CPSS	Committee on Payment and Settlement Systems
ECB	European Central Bank
GARCH	Generalised Autoregressive Conditional Heteroscedasticity
GDP	Gross Domestic Product
IMF	International Monetary Fund
IOSCO	International Organisation of Securities Commissions
LDGs	Least Developed Countries
NIIP	Net International Investment Position
OLS	Ordinary Least Squares
PMI	Purchasing Managers' Index
PSS	Payment and Settlement Systems
PvP	Payment versus Payment
RAM	Risk Assessment Matrix
RTGS	Real-time Gross Settlement
SDRs	Special Drawing Rights
SMEs	Small and Medium Enterprises
TARGET	Trans-European Automated Real-time Gross settlement Express Transfer system

Preface

Finance is no more finance in the true sense of the words today (see Ramlall (2013)). As a matter of fact, the world is presently buffeted by many challenges, some of which manifest in new forms such as FinTech and cryptocurrencies while some challenges prevail out of the legacy trailed behind by the 2007 global financial crisis. In spite of the existence of high-esteemed Journal of Financial Stability, yet, there exists no textbook or a series of books which weave through all aspects of the core areas of focus under financial stability. This volume (under a four-volume series of books on financial stability) attempts to fill in such a vacuum.

Financial stability represents a highly complex and multidimensional concept. This implies that sound and holistic financial stability assessment requires that the authorities focus not only on local but also on international developments. As a matter of fact, the author finds that most financial stability reports published by central banks begin with focus being laid to developments at the global level. Usual references are made with respect to the Global Financial Stability Report of IMF along with its Global Economic Outlook reports. As far as local developments are concerned, emphasis is being laid on sectoral assessments of the country. In addition, recourse is made to financial system stress index in order to identify feasible risks to financial stability. At the end of the day, both structural and cyclical forces represent latent risks to financial stability from the perspective of local developments.

One of the most important developments in terms of financial innovation in the African over the last five to 10 years pertains to payments/money transfers via mobile phones. This signifies that mobile service providers are helping in enhancing financial inclusion in Africa. Payment systems can be an important source for the transmission of disturbances in the financial system. No economy can function without having a robust and smooth functioning payment and settlement systems. These systems can be within the local economy such as banks paying banks and also across borders such as an institution settling a transaction with a foreign institution using SWIFT. Payment and settlement systems are affected by operational risk which constitutes a major hurdle due to lack of data and only when the risks crystallise that effective metrics can be built. Attempt is made to explain the importance of the payment and settlement systems with respect to financial stability with emphasis being laid on the significance to abide by proper principles which would ensure that the system is perpetually robust and sound. Coverage is also provided pertaining to systemic risks which characterise the systems with discussion being made with respect to challenges of the systems.

Reserves represent the buffers that countries often wield during crisis conditions. The two major types of reserves are discussed, namely capital reserves and

liquidity reserves for financial institutions at large (banks, insurance companies) before drifting to country reserves such as the import coverage ratio. As a matter of fact, the ability of an economy to withstand shocks through the use of reserves as a cushion hinges heavily on whether these reserves are being naturally endowed or acquired. In the former case, this presents lesser strains on the economy while in the latter case, once reserves are found at a critical stage, the authorities may no longer be able to intervene so that this unleashes major detrimental impacts on the economy – the most glaring instance pertains to foreign exchange interventions in the case of a fixed exchange rate regime clung by an economy.

Derivatives present an important area of focus for financial stability. This can best be explained in the words of Warren Buffet who labelled derivatives as financial time bombs. Since derivatives appear to be a subject of its own area and based on its immense significance in the world, a meticulous approach is undertaken when explaining derivatives from theory to practice. Big losses, metrics of assessments, rationale behind hedging, types of hedging, elements to factor for sound hedging and different instruments of derivatives, such as swaps, options, futures and forwards, are all being given due consideration.

It is ironical to note that it was only after the global financial crisis that the authorities in Europe decided to engage into a European Fiscal Union. Such a workout plan should have been decided long back ago during the ongoing stage of establishment of the European Monetary Union. The underlying rationale relates to the Mundell–Fleming theory of capital flows and exchange rate regimes. It has been proven that in the case of a flexible exchange rate regime, monetary policy becomes highly effective under free capital flows. Conversely, fiscal policy is recommended in the case of a fixed exchange rate regime. Apart from these issues, investigations are also being made as to the US–China case – a clear-cut case of non-conformity to economic theory – depreciating currency for balance of payment deficit economy and an appreciating currency for balance of payments surplus economy. It tends to be a common feature in economic parlance to have Asian economies striving hard to maintain weaker currencies to boost their exports. Quantitative easing in the US and in Europe which generated massive liquidity could be benefiting to developing countries which have relatively higher interest rates than these advanced economies so that this could contribute to higher capital inflows to developing countries but with pressures on exchange rates, adding lustre to the application of Mundell–Fleming theory to the practical world.

The core areas of focus have been considered based on the experience of the author in analysing various financial stability reports issued by various countries (mainly through their central banks) in the world. These core areas have been arranged into local and international developments, payment and settlements system, reserves, derivatives and exchange rate. In essence, these five core areas are given full consideration in this book. No stone is left unturned in terms of unleashing a complete analysis of all these five components.

It is of paramount significance to note that financial stability constitutes a highly complex and subtle state by virtue of the fact that financial instability can

manifest even if there are strong signs of financial stability, making it a must to focus on these five core areas. For instance, even if all sectors of an economy exhibit healthy signs as to trigger low risks to financial stability, nonetheless, if the economy's payment and settlements system is badly affected by some unknown risk, this may entail significant decline in the level of trust and confidence in the country's money as to drive payments gridlocks and instability conditions. Conflicting goals may also be ingrained in financial stability. On 29 September 2015, the governor of the Bank of England pointed out that 'The abrupt transition to a low-carbon economy is "a financial stability risk"'. This explains the underlying rationale as to why a truly full-fledged analysis of financial stability necessitates sound investigation of these five core areas.

The disparity in savings between surplus and deficit countries has been cited as the major cause of global imbalances. Going ahead, the servicing cost of high public debts still pose lingering risks to financial stability though fears become abated via lower yields.

The author strongly believes that a new area of focus will need to be given consideration, namely cryptocurrencies and FinTech. However, as at of date, not many central banks are in favour of the use of cryptocurrencies chiefly when the latter are anticipated to gnaw at the very essence of existence of central banks and their authority through their vested powers to issue notes and coins in the economy. Nonetheless, as and when required, different chapters of this series of 4-volume books were given full consideration with respect to the link between technological developments and financial stability. For instance, in the current volume, cyberattacks risks are being discussed in payment and settlements system.

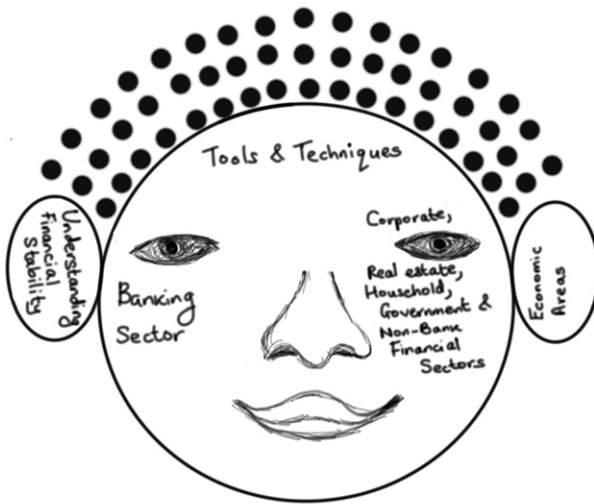
The book has been written as a reference material to cater for the needs of both new and experienced professionals such as central bankers, researchers, economists and policy-makers who are involved in the field of financial stability. As a matter of fact, many central banks now have a financial stability unit or a department but so far, there is no textbook which weaves through the various aspects of financial stability. Central bankers can use the book to beef up the analytical part of their financial stability reports by incorporating new tools of assessments. The book appeals to courses/programmes on financial stability as provided by Yale School of Management (Macroprudential Policy or Financial Stability Regulation/Master of Management studies in Systemic Risk), Goethe Business School (Financial Stability and Regulation/Executive Education course) and Florence School of Banking and Finance (Banking and Financial Stability course). To date, there are no textbooks or referenced materials which undertake an intensive and coherent approach to financial stability. For example, there is no such framework as to how financial stability, as a process, should be performed. This book attempts to provide all key issues in a highly comprehensive and critical manner. In that respect, the book is expected to be widely used worldwide, both by professionals and by researchers.

The author expects the book to be particularly useful to economists, policy-makers, researchers and students in the sphere of financial stability in the banking sector. As at date, there is no textbook on financial stability which weaves

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through all aspects of financial stability – from theory to practice. This series of five books on financial stability attempts to fill in such a vacuum. Comments and suggestions can be made to i.ramlall@uom.ac.mu/iiramii3@gmail.com. The author seizes this opportunity to thank an anonymous referee from the London School of Economics for his suggestions and reviews made by professionals from central banks and reputable organisations.

Dr Indranarain Ramlall
June 2018



Financial Stability as a field of its own.
Dr. I. Ramiall 20/09/18