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# The New Economics of Liquidity and Financial Frictions (a Summary)

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The financial crisis caused an intellectual crisis in economics. Not only were conventional models and risk metrics unable to anticipate the crash, but they also had trouble grappling with it and its consequences long after it occurred.

*The New Economics of Liquidity and Financial Frictions* is a book about a new branch of economics that has emerged since the crisis, though work on the subject began far earlier. This new field is largely a synthesis of macro and finance. A friction is an impediment, obstruction, or constraint that prevents markets and economies from working smoothly. A crippled financial sector and lack of liquidity are critically important frictions. The field's emphasis is on the frictions posed by both a credit boom and a credit bust. Frictions provide a new framework for viewing the economy.

The goal of the book is to convey to practitioners this modern economics, which in many ways is a radical departure from the older, frictionless approach still prevalent in economics textbooks and most of academia. It presents the many new models in this area, the intellectual history behind their development, and their strengths and limitations. But the insights offered by the new field are hardly just academic. This book provides a new understanding and approach to asset pricing, risk measurement and management, central banking policy, and the overall working of today's economy, including questions of financial stability. Importantly, this new field is also driving regulation, with key new systemic risk measures now enshrined in Basel III.

## Marrying Macro and Finance

Though practitioners and the public may be astonished to learn it, mainstream macroeconomic models lack a financial sector. There are no banks. Moreover, these models formally rule out catastrophic outcomes for the economy. Hence, when the crisis occurred, central banks, to the degree they relied on the most advanced macro models of the day, known as dynamic stochastic general equilibrium (DSGE) models, lacked a roadmap for what was to come.

Chapter 1 explores the intellectual origins of this strange modeling pathway. There are both intellectual and practical justifications for these models' oversights. In the canonical theories of economics, finance is just a "veil" over

real activity. Moreover, most of the models were developed in the post-World War II era in the United States—a time of great financial stability, when systemic financial crises were not a pressing concern.

The first chapter also profiles the work of early economists who took a different approach: Irving Fisher, John Maynard Keynes, and, more recently, Hyman Minsky. Newer macro models—including that of Bernanke, Gilchrist, and Gertler—formalize some of the insights of these older economists, most notably those of Irving Fisher.

The most cutting-edge macro models of today do include a financial sector. These models show how a small financial shock can be amplified into something much larger through the involvement of the financial sector. These crises involve negative feedback loops between the real economy and the financial sector and within the financial sector itself. The models shed light on why financial crises are uniquely damaging, more so than ordinary recessions and, in some senses, more so than a war.

Chapter 1 concludes with a description of the “financial cycle.” This cycle consists of insidious, slow-moving credit booms and busts. The financial cycle is much less well-known to investors than the business cycle. However, it is now a main focus of macroeconomic research and central bank concern because peaks in the cycle are associated with subsequent financial crises.

## **Financial Frictions in an International Context**

In Chapter 2, the book next considers how financial frictions apply in an international context. Here, the friction in question is surges in capital flows, as well as their cessation. Capital inflows into emerging economies can set off economic booms in these countries, culminating in a macroeconomic and exchange rate crisis. These booms and busts consist of positive and negative feedback loops in these countries involving capital flows, asset prices, and the exchange rate. One policy conclusion—at odds with mainstream thinking until very recently—is that capital controls on inflows are needed for macroprudential reasons.

This chapter presents new models of financial instability and amplification mechanisms for developing economies. These models, unlike older, frictionless international models, consider the impact of externalities caused by capital inflows. Such externalities can be corrected through effective use of capital flows. However, empirical literature has found that capital controls have in most instances proven to be “leaky,” so other approaches are called for.

The book examines the crisis in the peripheral countries of the eurozone through this prism of financial frictions in an international context. The crisis in these countries can largely be explained by this new economics focused on capital flows and the booms and busts they set off. Conventional analyses of the eurozone crisis instead focus on other explanations, such as fiscal

imbalances, the need for austerity or the damage caused by it, and the policies of the European Central Bank. In contrast, the book argues that the underlying problem in the peripheral countries is their lack of competitiveness stemming from the boom that preceded the bust. Capital inflows drove wages ahead of productivity. An internal devaluation could be a solution, albeit one that would be very hard to implement.

## **Asset Pricing**

Chapter 3 offers fresh insights into asset pricing and presents several new asset pricing models. Though many of these models are still on the research frontier and are very stylized, their ideas can be used for portfolio design, both to guard against an unexpected liquidity crisis and as a way to increase returns.

Traditional asset pricing models, such as the capital asset pricing model (CAPM), ignore financial frictions: Markets are complete, there are no transaction costs, and investors face no leverage constraints. A handful of contemporary asset pricing models now include realistic frictions, such as lack of liquidity.

*Liquidity* has no single definition or measure in finance. Nonetheless, there is widespread evidence that lack of market liquidity, however defined, affects expected returns in two ways—as a transaction cost that investors must be compensated for and as a priced risk “factor.” Assets whose prices decline when liquidity crises arise should offer higher expected returns because of this risk. These ideas about the importance of liquidity as a characteristic and as a risk factor—both of which affect expected returns—have been formalized in the liquidity CAPM, or L-CAPM, discussed in Chapter 3.

Liquidity and the higher expected returns from illiquid assets may explain a great deal about the unconventional success of the endowment model. Endowment portfolios tend to be highly illiquid. Chapter 3 looks at the role of illiquidity in endowment portfolio design and returns, as well as lessons for individual investors trying to replicate this approach.

*Funding liquidity* is another aspect of liquidity. It lacks a consensus definition but generally refers to the ability of financial intermediaries to satisfy their funding or short-term capital needs. Funding liquidity risk is an additional priced risk factor. It can also be a very useful economic indicator. Certain funding liquidity measures have some predictive power in terms of market performance. Chapter 3 discusses several measures in this area.

## **Macroprudential Regulation and Systemic Risk**

Systemic risk and the related topic of macroprudential regulation are discussed in the penultimate chapter of the book. Both terms lack agreed-on definitions and measures. Macroprudential regulation is generally concerned with policies that strengthen the financial system as a whole, rather than just an

individual institution. Systemic risk is the risk posed by threats to stability of the financial system.

Chapter 4 explains that there are actually two dimensions to systemic risk: (1) risks posed by the failure of a financial intermediary that is considered too big to fail, or too highly interconnected to fail, at a particular point in time and (2) risks that build up over time. This second category of systemic risk is essentially synonymous with the financial cycle described in Chapter 1. There are many different measures of systemic risk. The standard measure for a buildup in systemic risk over time is the “credit-to-GDP gap” developed by the Bank for International Settlements. The chapter explains the theory behind these concepts as well as the actual calculations involved in the measures.

Regulators are closely following research developments related to systemic risk. Specific systemic risk measures are now embedded in Basel III and influence the setting of countercyclical capital buffers.

Chapter 4 concludes with a look at CFA Institute’s initiatives related to systemic risk, including the work being done by the Systemic Risk Council, an independent project jointly created by CFA Institute and the Pew Charitable Trusts. Its advocacy efforts address regulatory and structural issues relating to systemic risk in the United States.

## **Conclusion: Financial Frictions and the Path to Reform**

The final chapter looks back to highlight overlooked financial frictions that may have been central to the crisis. Chapter 5 also analyzes various theories as to why growth since the crisis has been so anemic and describes current debates among central bankers about what to do in response. It concludes with ways to ensure greater financial stability, as well as how the social science of economics itself could be improved on in terms of some of its practices, including a greater emphasis on financial frictions.

Financial economists were not just negligent in ignoring the risks posed by an unstable financial sector in theory. They ignored the changing nature of financial intermediaries in practice: There were extremely few academic research papers about the US shadow banking system. This system was larger than the traditional banking system but had unusual vulnerabilities. In particular, it lacked a lender of last resort that could provide a liquidity backstop in times of crisis. Hence, the shadow banking system was vulnerable to runs.

Chapter 5 looks at various theories as to which market experienced the first run during the crisis in the United States. The repo (repurchase agreement) market is the conventional suspect. However, recent evidence suggests that runs in asset-backed commercial paper were larger and occurred earlier than runs in repo.

Interventions by the Federal Reserve were able to stop these runs. However, these interventions may have had unintended negative consequences: They may have sowed the seeds of further financial instability. Chapter 5 points to the importance of macroprudential considerations in monetary policy. Relying on regulation alone may not be enough to ensure financial stability.

There is little consensus about why growth in advanced economies has been so anemic since the crisis. Chapter 5 discusses various theories related to the “secular stagnation” hypothesis and ideas for what policymakers can do next.

The book concludes with a call to continue including realistic financial frictions in abstract economic models and analysis. *The New Economics of Liquidity and Financial Frictions* examines a field very much still in active development that is creating new theories and policies to ensure financial stability and improve economies’ resilience to future financial crises.

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The complete book can be found at  
<http://www.cfapubs.org/toc/rf/2014/2014/4>



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