The objectives of regulation and regulatory components could be more expressly linked to the goal of system-wide financial stability. The standards are useful to regulators charged with assessing the strength of regulated entities within each sector. However, their use in addressing system-wide stability issues is limited, partly because they were not written for this purpose. The standards take little account of structural issues, or of inter-linkages among different types of financial firms and markets.

(Financial Sector Regulation: Issues and Gaps, IMF, 2004a, p. 30).

12.1 Introduction

Financial policy is today a central concern of economic policy. This has not always been the case. Prior to the financial liberalization initiated in the early 1970s, financial issues did not play a major role in post-War policy-making. Liberalization, combined with remarkable developments in financial analysis, has dramatically changed the policy terrain. Today, whether in developed, transition, or developing economies, financial issues, domestic and international, are a major component of any policy debate.

In contrast to many of the international regulatory developments in finance since 1975 (the Basel Accord of 1975, Basel I in 1988, and so on) a lack of focus on the changing systemic characteristics of the international financial system has become a characteristic of international regulatory developments in the past few years. It is certainly a characteristic of Basel II, surely the most important practical expression of the contemporary theory of international regulation. And via Basel II, it will be a characteristic of the European Union’s regulatory directives, and, indeed of the regulatory initiatives now being taken by the IMF and the World Bank, and the Financial Stability Forum.

What are these ‘changing systemic characteristics’? The Background Paper that accompanies the IMF’s Issues and Gaps paper lists them as (IMF 2004b, pp. 4–17):^1
Beyond Transition

- Increased conglomeration and risk transfer;
- Significant and growing internationalization;
- Growing dollarization.

Paradoxically, in the face of these significant macroeconomic trends, regulatory standards have retreated from macro concerns, concentrating on essentially microeconomic issues – as is the case with the Regulatory Standards. Pillar 1 of Basel II in which regulatory capital requirements are based on the risk models of firms is another major example. And at the same time, the impact of the externalities created by risk-taking institutions has been lost in the emphasis on market-compatible regulation – consider Pillar 3 of Basel II that seeks to enhance disclosure, transparency and market discipline.

Efficient risk-management by firms is a fundamental component of competitive success in today’s financial markets. It also makes an important contribution to general market stability – in normal times. However, in the face of extreme events (even ‘moderately’ extreme events) rational risk-management by individual firms may precipitate a macroeconomic reaction that is destabilizing, can place those firms in jeopardy, and result in a general welfare loss.

The objective of this paper is to explore some of the linkages between risk management at the microeconomic level and systemic risk. Some important arguments recently advanced by Caballero and Krishnamurthy (2006) will be used to illustrate these linkages. A key element in the argument will be played by the concept of ‘Knightian uncertainty’ (see Gilboa and Schmeidler, 1989). The essence of Knightian uncertainty is that an agent has too little information to form a prior, and hence considers a set of priors as possible. Being uncertainty averse, the agent acts on the basis of the minimal expected utility when evaluating any particular trade or contract. It will be argued that this concept captures a key element of the relationship between risk management and systemic risk. It also throws important light on the role of the lender of last resort.²

12.2 Externalities and the macroeconomics of systemic risk

Financial risk-taking is a concern of public policy because associated with the risk-taking actions of individuals there are externalities; that is costs and benefits accruing to the society that are external to the calculations of the individual investor, and not accounted for in the market place.³ A major financial failure imposes costs on society going far beyond the losses suffered by the investors. In an economy where there are important externalities, competitive markets will be socially inefficient. The task of public policy, in this case of financial regulation, is to attempt to mitigate these inefficiencies.