

Preface

This dissertation consists of five chapters, all of which deal with different aspects of insurance. The first three chapters are motivated by insurance sector reforms being pursued in India. Of these three chapters, the first chapter that deals with impact on precautionary savings via insurance reforms, can be read independently whereas the second and the third chapters are to be read together since both deal with the adverse selection problem (ASP) in insurance. In fact, these two chapters are motivated by ASP specifically in a developing country context; the first from a regulatory perspective; the second by a search for an appropriate market structure in the presence of ASP. Chapter four and five can be read independently as both these chapters deal with two different aspects of insurance.

In chapter one, we analyse how insurance sector reforms affect savings through precautionary motive. Financial sector liberalisation which includes insurance, is being pursued in many developing countries. The rationale for financial sector liberalization is to achieve greater efficiency both in the use and allocation of funds. Insurance liberalisation in India consists of several components which include the removal of state monopoly, promoting competition, setting up a statutory regulatory body, developing prudential norms for private entry, setting up mechanisms to protect against insolvencies and bankruptcies, and so on.

An important issue is to study the effect of these reforms on savings, both short term and long term. Financial liberalisation leads to financial deepening, rise in real interest rate and greater mobilisation of savings needed for economic development and growth. But whether financial liberalization actually does increase private savings is an empirical question. In this chapter, we look at insurance liberalisation and its impact on savings through precautionary motives. This is done by introducing insurance option in a hitherto "savings-only" economy. That is economic agents, due to insurance liberalisation move from self insuring to using insurance markets along with savings. The second aspect of insurance reforms that we look at in this chapter relates to probable bankruptcies which are ushered in, once a state monopoly is replaced by several competing players. Bankruptcy has as yet not been an issue since insurance in India is sold only by a public monopoly. But this issue is likely to become important with the entry of private insurers.

In chapter two, we review different devices that have been discussed in the literature to overcome ASP. We analyse the appropriateness of some of these devices in a developing country context. We also propose three new devices: audit regulation, geographical division of market, and combining and bundling two or more lines of business, that can help overcome ASP, especially in a developing country.

Certain lines of insurance business especially property and casualty insurance display greater instability. This instability manifests itself in the form of cycles of booms and busts and also in insolvencies. Under-cutting of prices in a competitive insurance market is partly the reason behind it. Pricing of insurance is inherently difficult due to contingent nature of liabilities, difficulty in risk estimation, and due to imperfect information about buyers' risk type that lead to ASP. Theoretically, price undercutting in the presence of ASP has been well studied in the literature. ASP is likely to be greater in insurance markets in developing countries because of greater informational asymmetries. Besides informational asymmetries, other features of developing countries such as weak enforcement of contracts, and greater potential for "regulatory failure" call for greater role of government in insurance market. Studying the appropriate role of government intervention especially in lines of business with ASP is important as many developing countries are at varying stages of their insurance market liberalisation.

Chapter three deals with the market structure with ASP. Rothschild– Stiglitz (1976) (henceforth RS76) pointed out the problem of non-existence of competitive equilibrium in insurance markets with asymmetric information. In a recent exposition Rothschild-Stiglitz (1997) have reiterated the incompatibility of competition and insurance, and suggest that, if unregulated, competition can destroy insurance markets. Stiglitz (1977), analysing the case of a profit-maximising monopolist, on the other hand, showed that the monopolist might find it optimal not to offer any contracts to the low risk type, in two risk types case. Thus both market structures, competition and monopoly, in insurance markets seem to throw up unsatisfactory features; which in turn provided fuel to the proponents arguing for a "publicly owned" monopoly in insurance. While we do not go into this debate here we wish to explore whether in the simplest scenario of two risk types who are otherwise identical, an insurance economy can simultaneously exhibit an absence of competitive equilibrium (*a la* RS76), and an absence of total coverage of the market by a monopolist (*a la* Stiglitz (1977)).

Chapter four is about combining of life insurance with savings, which we refer to as "bundling." Bundling is a universal phenomenon but the reasons behind bundling in

developed countries differ from those in developing countries. In developed countries economies of scope is the main reason behind bundling while in developing countries it is due to savings mobilisation role of life insurers. Tax concession may also be the motive behind prevalence of bundling, but this motive is common to both developed and developing countries.

Life insurance companies in developing countries are major mobilisers of savings. In the absence of a well developed financial markets this mobilising role of insurers has indeed been an important one. To cite an extreme case, the ratio of assets of life insurers to GDP is probably the highest in South Africa where financial markets are presumably not very well developed. Bundling of insurance and savings may also result from financial policies as insurers are subjected to greater control in developing countries. Governments in these countries consciously strive for higher savings rate (to finance their developmental activities) and accordingly, offer attractive fiscal incentives through tax concessions.

Chapter five entitled "Demand for insurance revisited" is motivated by the observation of low demand for insurance when price of insurance is subsidised, and conversely, higher demand for insurance even when price of insurance is unfair. Other observations from experimental studies have also shown apparent preference for insuring small probable losses over large improbable losses. These "empirical regularities" cannot be explained in a standard single-period model of demand for insurance. In this we explain these regularities using the two-period framework for modeling demand for insurance. In this framework we show that the empirical regularities can be explained if there is a wedge between the actuarially fair premium and the return on alternate investment option which we assume to be a risk-free government bond.