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Patent Licensing and R&D Subsidy Policy

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Summary on *Patent Licensing and R&D Subsidy Policy*

The book consists of three self-contained essays and an introduction. The introduction provides a very nice overview on the licensing literature while the essays deal with the theory of patent licensing and its implications for governments' R&D subsidy policy.

Chapter 2 examines the problem of licensing and imitation in product-differentiated markets. The optimal licensing with and without imitation and the optimal choice of licensed technology are studied. It is found that, in product-differentiated markets, two-part tariff licensing may be optimal without running afoul of antitrust law. Under different patent systems, the licensor uses different license contracts to prevent imitation. If imitation may be induced by licensing, the quality of licensed technology depends on the degree of substitutability.

Chapter 3 discusses the question of which firm to subsidize, the more or the less efficient. It is found that R&D efficiency plays a relevant role in the interaction between government and firms. If R&D efficiency is sufficiently high, the government subsidizes firms' R&D investments to induce the firms to engage in ex-post licensing. R&D subsidy goes to the more efficient firm if R&D efficiency is relatively low. In doing so, the government can save subsidy cost. But if R&D efficiency is relatively high, it is optimal for the government to subsidize the less efficient firm.

In Chapter 4, R&D rivalry and optimal R&D policy are investigated in a four-stage game that involves international licensing. In an international market, the less efficient prefers not to invest in R&D if it has less bargaining power over licensing gain and its R&D costs are sufficiently high. Suppose both firms innovate, a government may subsidize, tax, or not intervene in its domestic firm's R&D investments, depending on the firm's bargaining power over licensing gain.