Strategic R&D Investment Under Liability Law

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ABSTRACT This paper analyzes the incentives of duopolists to invest in advanced care technology under liability law. We establish that investment incentives under strict liability are in line with the taxonomy of Fudenberg and Tirole (1984), whereas the investment incentives under negligence most likely are not. Indeed, investment incentives under negligence are dependent on the timing of the policy maker’s regulations, whether or not due care is firm specific, and whether or not precautionary measures are durable.

Key Words: Strategic Behavior; Care; Induced Technical Change; Liability Law; Imperfect Competition.

JEL classifications: L13, K13.

1. Introduction

Liability law is an important instrument of environmental and product safety regulation. This law sets the rules that determine whether firms must compensate those who are adversely affected by the firms’ activities. An obvious example of an adverse effect is environmental pollution. The most important liability rules used in liability law are strict liability and negligence. Under strict liability, the firm is required to compensate harm irrespective of its behavior. Under negligence, whether the firm is held liable is contingent on the breach of a behavioral norm. Examples of important liability legislations using, to different extents, the two liability rules just mentioned are the EU Environmental Liability Directive, the EU Products Liability Directive, the US-Superfund legislation, and the US Oil Pollution Act.

There is a prodigious body of literature on the economics of liability law that extends from the early contributions of Calabresi (1970), through the seminal works of Shavell (1980, 1987, 2007), up to the most recent contributions, including those of Endres and Friese (2011) and Baumann and Friese (2010).