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## **ENDOGENOUS INFORMATION AND SELF-INSURANCE IN INSURANCE MARKETS: A WELFARE ANALYSIS**

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**September 2006**

**DT-GREQAM**

# Endogenous Information and Self-Insurance in Insurance Markets: a Welfare Analysis

Francesca Barigozzi\*and Dominique Henriët†

September 2006

## Abstract

We develop a model where consumers *do not* have ex-ante private information on their risk but can decide to acquire such information before insurance policy purchase. Adverse selection can arise endogenously in the insurance market. We focus on the case where information has decision-making value: information allows consumers to optimally choose a self-insurance action. We analyze insurance market response to endogenous information and consumers' incentive to search for such information. Welfare costs caused by the lack of coverage against the risk to be a high risk are analyzed. The case of genetic testing serves as an illustration.

## 1 Introduction

The standard assumption in insurance models is that consumers are perfectly informed about their probability to incur a loss. In other words, individuals perfectly observe their risk (type), while insurers do not. In insurance markets characterized by adverse selection, insurance firms offer self-selecting contracts: the well-known Rothschild/Stiglitz equilibrium allows insurers to separate the high- from the low-type consumers.

In many situations, however, consumers have only a vague perception of their probability of incurring a loss: they do not have ex-ante superior information. This is the case, for example, of health related risk. Nevertheless, recent developments in medical science makes genetic tests for many diseases available to consumers: whenever consumers choose to undertake a test, they decide to acquire more precise information about their risk. This means that individuals *can* learn information about their risk of illness before purchasing the insurance contract: information is endogenous.

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