

# IS HEALTH INSURANCE DEMAND RELATED TO INDIVIDUALS HEALTH PREFERENCE?

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## INTRODUCTION

**Double consequences of health insurance:**

- Monetary
- Health

**Health insurance decision involves a trade-off between money and health.**

**Individual preference for health** is the relative value the individual attributes to health events with comparison to other dimensions of her life (Grossman, 1972).

Evidence of the role of risk and time preferences (financial domain) in health insurance demand but do not consider health insurance special features (Schram and Sonnemans, 2011; Kairies-Schwarz et al., 2017)

**WHAT IS THE EFFECT OF HEALTH PREFERENCE ON HEALTH INSURANCE DEMAND?**

*Objective: Investigate the role of health preference on health insurance demand controlling for risk aversion (in both the financial and health domains)*

## THEORETICAL SETTING

### Health preferences

Willingness to pay (WTP) for the best health status:  $W_{hp}^i = W_0^i - W_{eq}^i$

### Risk preferences

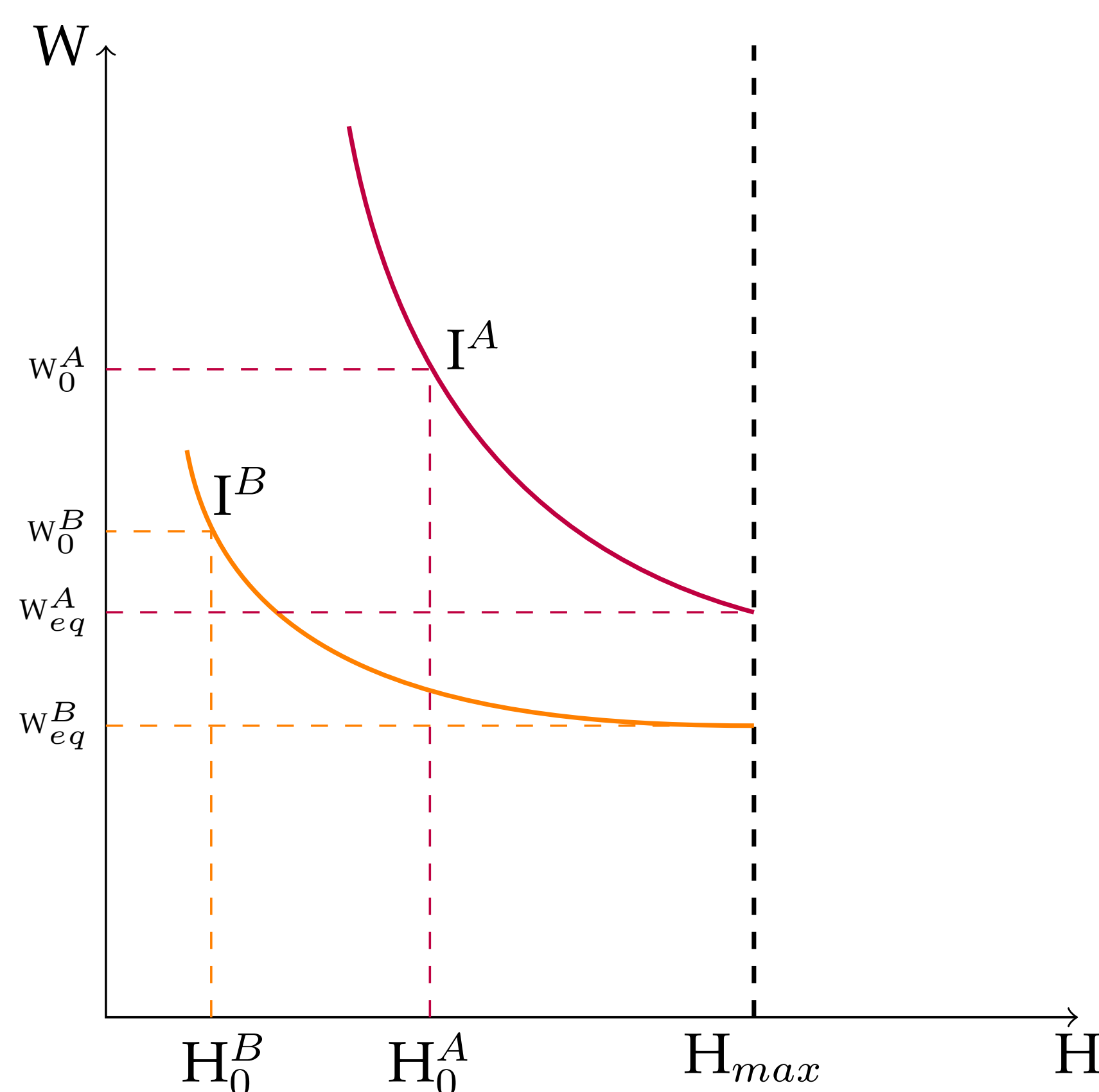
*Cumulative Prospect Theory (CPT)*

$CPT(p, x; y) = w(p)u(x) + w(1-p)u(y)$

$w(\cdot)$  : probability weighting function

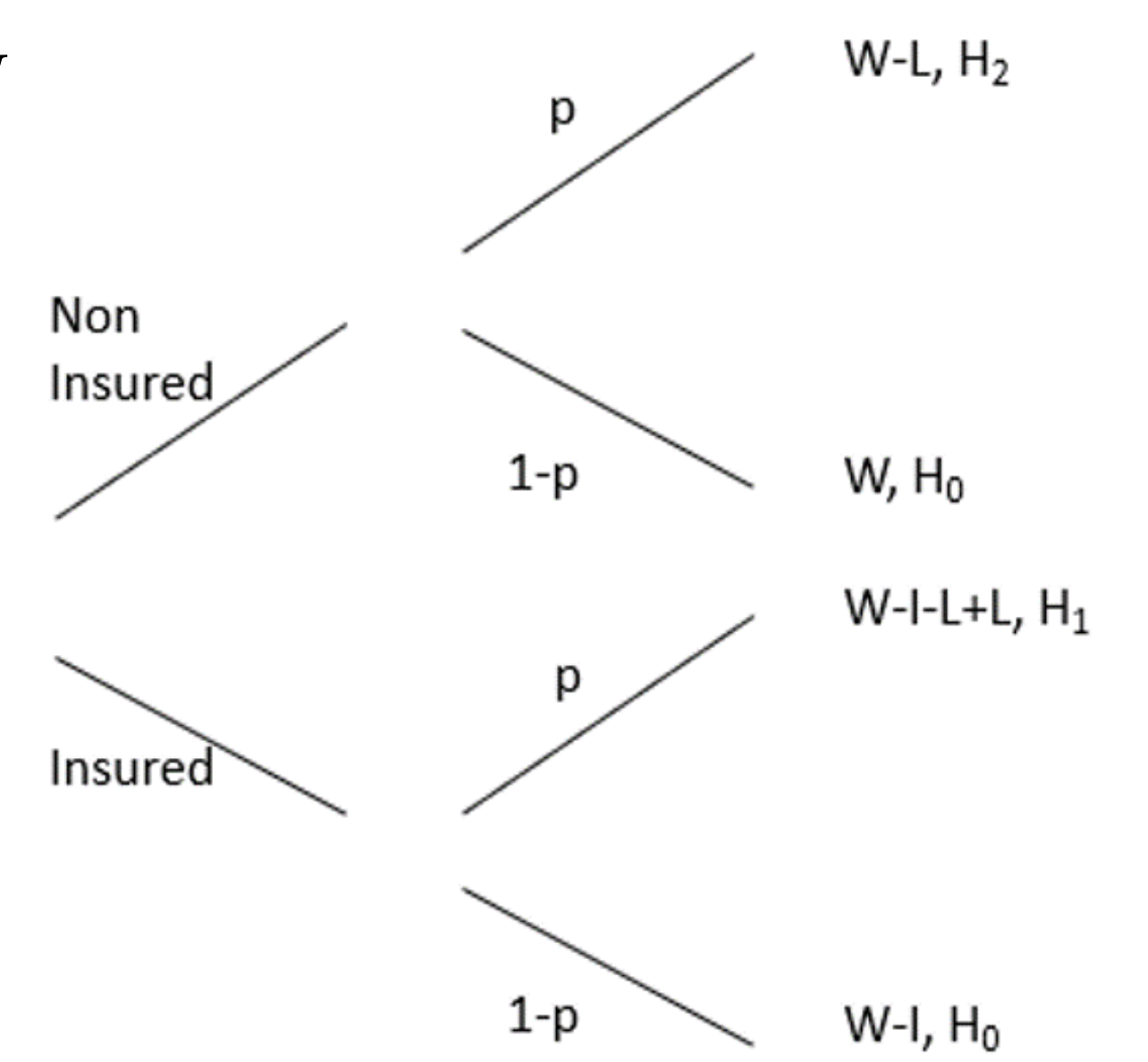
*Loss aversion* :  $\lambda$

$$U(x) = \begin{cases} u(x) & \text{if } x \geq 0 \\ \lambda u(x) & \text{if } x < 0 \end{cases}$$



### Insurance decision

- Initial endowment:  $W$
- Probability of the health event:  $p$
- Monetary loss:  $L$
- Health insurance price:  $I$  [ $a$ ;  $b$ ]
- Initial health status:  $H_0$
- Health status with insurance:  $H_1$
- Health status without insurance:  $H_2$



## EXPERIMENTAL DESIGN

All tasks are **hypothetical**.

### TASK 1

Health preference elicitation

### TASK 2

Risk preference elicitation

### TASK 3

Health insurance decision  
without health consequences  
with health consequences

### Preferences elicitation

*Health preference elicitation*

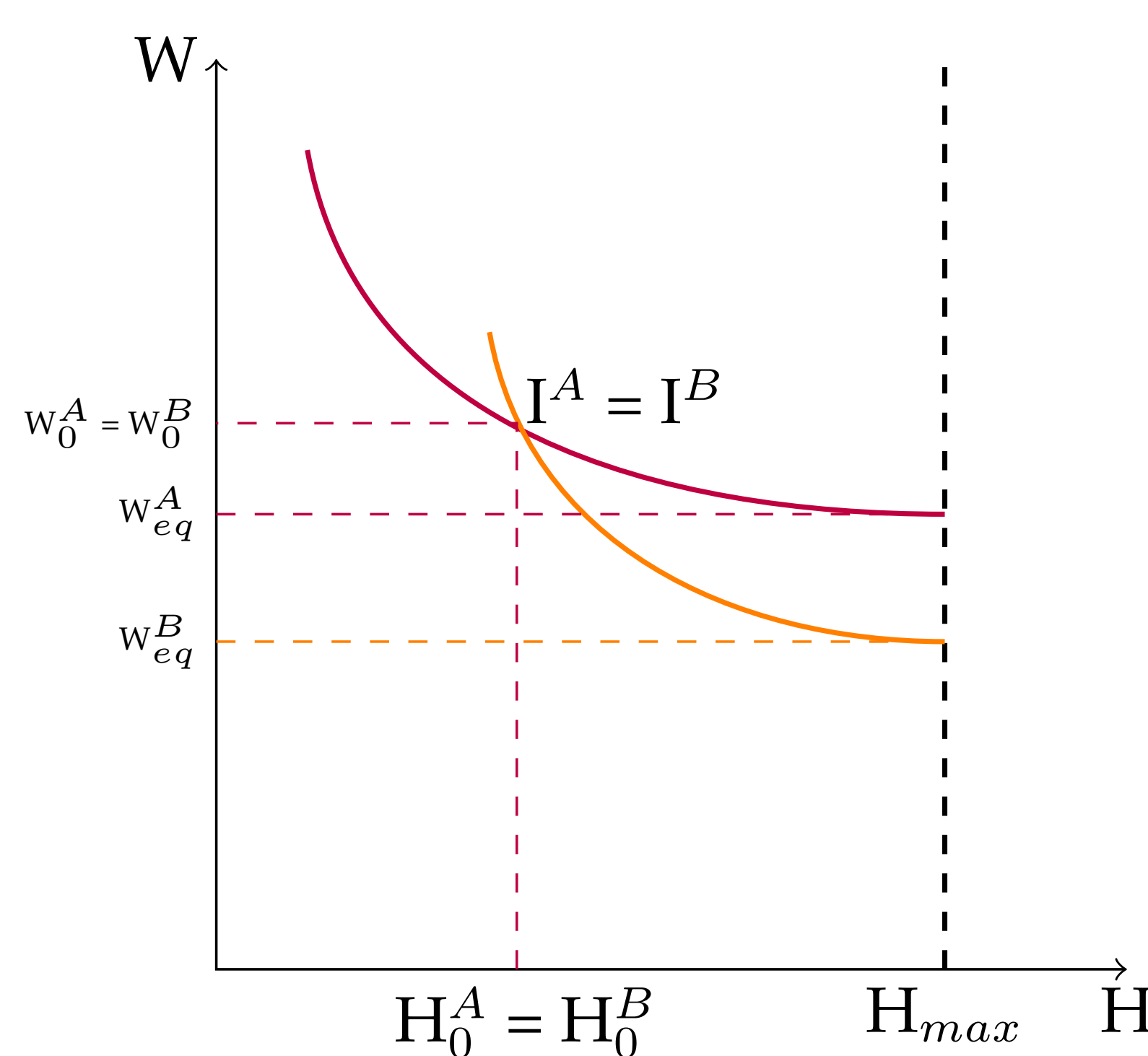
Description of a health condition with a fixed income and ask how much money they are ready to give up to not have this health condition anymore

Elicitation of  $W_{hp}^i$

*Risk preferences elicitation*

Several lotteries with health (years of life) and financial outcome following Abdellaoui et al., 2008 and Attema et al., 2013

Elicitation of risk aversion,  $w^+(\cdot)$ ,  $w^-(\cdot)$ ,  $\lambda$  in health and financial domains.



### Health insurance decision task

Two type of decisions: **with or without health consequences**.

*"Before knowing if the health event is going to occur or not, you have the possibility to subscribe to a health insurance. The health insurance costs  $I$  and is to be paid upfront. It will fully reimburse you of your loss  $L$  in the case the health event occurs. You will also be able to seek medical attention more rapidly than without insurance, so the number of days during which you are diminished is not seven days anymore but four days. If the health event does not occur, you will have nothing from the health insurance."*

Elicitation of individual **willingness to pay for health insurance**.

## EXPECTED RESULTS

Our hypothesis are:

- $H_1$ : The higher the WTP for health insurance, the higher the individual health preference.
- $H_2$ : The WTP for health insurance is higher for decisions with health consequences than for those without.
- $H_3$ : Health preferences have a more important role in the decision with health consequences than in those without.
- $H_4$ : The higher the WTP for health insurance, the higher the individual risk aversion in the financial domain.
- $H_5$ : The higher the WTP for health insurance, the higher the individual risk aversion in the health domain.