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Competitive Screening in Insurance Markets with Endogenous Labor Supply

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High vs low productivity (observable by employer but not insurer??)

$$w_L < w_H$$

High vs low loss probability

$$p_L < p_H$$

$$U(L) = v(L) + Eu(\tilde{c}) \equiv \hat{v}(\overline{L} - L) + Eu(wL - \tilde{x})$$

Where $\hat{v}' > 0, \hat{v}'' < 0$, $\overline{L}$ = max labor supply, $\tilde{x}$ = net loss

Alternative interpretation, two-period savings model with risky 2nd period.
$\overline{L}$ = 1st period income, L = savings, w = gross interest rate

Lemma 1 - Under DARA, with less insurance (and a fair premium adjustment), a higher L^* would be chosen by the individual.

Equivalent: With a mean-preserving increase in risk $\tilde{x}$, we save more.

Note: This result requires only prudence (weaker than DARA)

For the high-risk type,, with same insurance contract

$\tilde{x}$ is FSD dominated by low-risk $\tilde{x}$

==> L will be higher for high risks due to risk aversion
(more precautionary savings)

Higher L implies less risk averse. Effect on *MRS*? (irregular crossing?)
(High risk with lower MRS?)

Assumptions & lemma 4 imply that, *ceteris paribus*, with $\beta < 1$:

MRS is higher for low-productivity individuals of same risk type.

Thus:

MRS is higher for high-risk individuals iff regular crossing

MRS can be higher for low-risks if irregular crossing

Precautionary effect of higher ***L*** for high risks → less risk averse

Possibly have low-risks with higher *MRS*:

Type **LL** with higher *MRS* than type **LH**

Type **HL** with higher *MRS* than type **HH**

Not an irregular crossing if CARA or "not too DARA" [or if $p_H >> p_L$]

(i) not a large precautionary effect (not a large change in *L* from $\beta = 1$ case)

(ii) not a large change in risk aversion due to any changes in *L*

Smart (2000), Wambach (2000), Villeneuve (2003)

	Productivity		Risk Type (regular crossing only)		
MRS higher	LH	LL	LH	HH	**-- steeper**
MRS lower	HH	HL	LL	HL	**-- flatter**

steepest **LH > {LL, HH} > HL** *flattest*

Smart's pooling is only between LL & HH types

Netzer & Scheuer also allow for the possibility (with $\beta < 1$):

	Productivity		Risk Type (with irregular crossings)		
MRS higher	LH	LL	LL	HL	**steeper**
MRS lower	HH	HL	LH	HH	**flatter**

Always have LH type with full coverage.

Can have pooling equilibrium with:

1. All 3 types pool: (**LL,HH,HL)**
2. Type 1 equilibrium: (**LL,HH** pool, less cover for **LH**)
3. Type II equilibrium: (**HH,HL** pool, more cover for **LL**)

Set-up, as explained above, is similar to Smart (2000). Yet Smart only obtains the type I equilibrium.

-- Nice paper. MANY assumptions. How general are the resulting equilibria?

-- Does assuming entry cost $E \rightarrow 0$ and a large number of insurers really "solve" the positive profit issue? (Each insurer takes an infinitely small piece of the positive profit?)