

*The Relationship Between Intertemporal Demand and  
the Human Capital Production Technology*

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- WHAT IS THE PAPER ABOUT?

Studies how different Human Capital Production Technology (HCPT) affect the solution of a life-cycle model with joint labour supply/investment in human capital decisions.

1. Start from a standard framework (Blinder-Weiss JPE 1976):  
Linear HCPT - Human Capital is the only factor.
2. Characterise the solution for this general set-up.
3. Solve explicitly a parametric case.
4. Characterise and solve for one generalised HCPT: assets are an additional input.

- MAIN RESULTS

1. Linear HCPT:

- a. labor-leisure choice does not depend on preferences;
- b. labor-leisure and share of time devoted to HC investment DOES NOT depend on the wage rate.

2. General HCPT:

- a. labor-leisure choice does not depend on preferences;
- b. labor-leisure and share of time devoted to HC investment DOES depend on the wage rate.

- COMMENTS

1. Good news: we can solve phase 2. How about phases 1, 3 and 4?

2. It is not clear whether the analysis is GE or PE. If GE, it should be stated clearly that the analysis is restricted to steady-states only. Prices  $w(t)$  and  $r(t)$  are constant, otherwise the solution would be more complicated.

3. The contribution focuses only on the theoretical issues of the problem: it would be interesting to complement it with an empirical analysis (e.g. Heckman 1976).

Can we pin down a functional form?

What are the testable prediction of the theory?

At least it would be interesting to present some stylised facts.

4. More emphasis on the economic intuition of the results. For example:

Phase 2 – 1<sup>st</sup> generalised model - The hours worked equation changes.

$$h_t^L = \frac{(r + \delta)}{a} \rightarrow h_t^G = \frac{(r + \delta)}{a} C = \frac{(r + \delta)}{a} (1 - \gamma)^{1-\gamma} \gamma^\gamma \left(\frac{r}{w}\right)^\gamma$$

A new constant term  $C$  weights the old solution.

$C$  : ‘shares’ parameters + relative price  $r/w$  (rather than the wage rate).

Intuition:

portfolio problem, optimal asset allocation between two alternative options.

Whenever

$$r > w \left( \frac{1}{(1-\gamma)^{1-\gamma} \gamma^\gamma} \right)^{\frac{1}{\gamma}} \rightarrow h^L_t > h^G_t$$

Moreover with *CEIS* and separable preferences

$$x^G_t = (1-\gamma)x^L_t \rightarrow x^L_t > x^G_t$$

5. A technical remark. Must assume concavity of the utility function.
6. They could include other extensions to the basic model: imperfect capital markets.
7. Some abuse of language:  $w$  and  $r$  are not parameters (if GE), they are given for the agent, but are endogenous together with the allocations.
8. There is a claim about a result of King/Plosser/Rebelo (1988): should report which part of their proof is flawed.