Income-Based Student Funding

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February 18, 2016
What is income-based funding (IBF)?

Two main types of income-based funding

- **Income-contingent loans**
  - Graduates pay a % of income
  - Payments stop when balance reaches 0, or after some (long) period of time

- **Income Share Agreements**
  - Graduates pay a % of income
  - No balance, contract length not contingent on payments
Potential benefits of IBF

- Reduced labor income risk
- Improved information and incentives for student success
How large is the cost of uninsured labor income?

- Agent receives risky *after tax* labor income, consumes it all.
- Log-labor income follows process:
  \[
  y_t = y_0 + x_t + \epsilon_t, \quad \epsilon_t \sim N(0, \sigma_T)
  \]
  \[
  x_t = x_{t-1} + \mu + \eta_t, \quad \eta_t \sim N(0, \sigma_p)
  \]
  \[
  x_0 = 0
  \]

- \(\sigma_T\) and \(\sigma_p\) are the volatilities of transitory and permanent shocks, respectively, and \(\mu\) deterministic labor income growth.
- Agent values consumption according to:
  \[
  V_0 = E_0 \left[ \sum_{t=1}^{N} \beta^t \frac{Y_t^{1-\gamma}}{1-\gamma} \right]
  \]
How large is the cost of uninsured labor income?

Using data from Brown, Gomes and Huang (2015), $\sigma_T = .23$, and $\sigma_p = .14$. Then:

<table>
<thead>
<tr>
<th>$\gamma$</th>
<th>1</th>
<th>5</th>
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<tbody>
<tr>
<td>$\frac{CE}{Y_0}$</td>
<td>.97</td>
<td>.88</td>
</tr>
<tr>
<td>$\mu - \mu_{CE}$</td>
<td>.01</td>
<td>.05</td>
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- **Lifetime CE loss** $\sim 60\%$
  - with $\gamma = 5$, $N = 40$, $\beta = .99$.
  - $\sim 20\%$ with $\gamma = 1$.

- Using loans to finance education *exacerbates* the problem
  - Loans induce leverage
Improved information and incentives for student success

Problem with education investments:

- Large investment made with limited information
- Mentoring has potentially large effects, but it is costly

Potential benefits from income-based funding:

- Better information about different degrees and institutions
- Better incentives to help the student succeed
  - Alas, these benefits are harder to measure
Timeline of significant events in IBF

1950: Friedman proposes IBF
1955: Muhammad Ali receives IBF
1960: IBF discussed for Federal funding
1965: Yale’s TPP
1970: Yale discontinues TPP
1975: Australia’s HECS NZ follows
1980: Colsofs
1985: Lumni
1990: Deutch Bildung
1995: Upstart
2000: Chile follows
2005: US follows
2010: MyRichUncle
2015: CareerConcept
2000: Brain Capital
2010: Pave
Lumni’s story

- First Chilean fund
- First Colombian fund
- First US fund
- First Mexican fund
- First Peruvian fund

- 2002: First Chilean fund
- 2007: 1,000 students financed
- 2008: First Mexican fund
- 2010: 1,000 students financed
- 2013: 7,700 students financed
- 2014: 5,000 students financed
Lumni’s numbers

Typical contract:
• 2 - 3 years of funding
• 5 years repayment
• $\sim 14\%$ of income committed

Size:
• Committed funds: $\sim 50M$
• # of students: 7,700 at the end of 2015
• Returns in for-profit funds: 8% – 14% range
Why not income-based funding?

Typical answers from an economist:

- Adverse selection
  - Clearly an issue for funding older persons
  - Not clear which party has better information in other cases

- Moral hazard
  - An issue with short-term contracts
  - Significantly addressed with long-term contracts
Why not income-based funding?

A practical perspective:

- Agency costs *have not* been an issue
  - Graduate incomes in line with expectations
  - Payments in line with expectations

- Legal ambiguity *has* been an issue
  - Leads to a free-rider problem

- Main issues:
  - Enforceability
  - Applicability of usury laws
  - Taxation
  - Regulatory entity
Looking forward

- Current legislative initiatives would take care of some of the current issues
  - Rubio even made it part of his campaign

- Purdue University is poised to launch an ISA fund next year

- The number of industry entrants is growing, watch for their track record

- Expect low-growth while legal issues remain.
  - Policymakers have a large role in the development of this type of funding!
The End

Thank you