Why re-design earnings taxation?

- Changes in employment patterns, in earnings inequalities and in population trends
- New empirical findings on response elasticities
- New insights from optimal tax design
- New insights from behavioural economics
- A need to look at the whole income tax/benefit system
+ Commentaries by Moffitt, by Laroque and by Hoynes
Summary direction of reform plan

- Change transfer/tax rate structure to match lessons from evidence and from optimal design theory
  - limits to tax rises at the top
    - domicile rules and anti-avoidance
  - lower marginal and participation tax rates at the bottom
    - means-testing should be less aggressive
- An emphasis on age-based taxation
  - target pre-retirement ages
  - distinguish by age of youngest child
- Integration of benefits and, to an extent, taxation
- Interaction with saving taxation and tax smoothing..

Motivated by a changed economic environment

- Changes in employment patterns
  - growth of female labour supply
  - changes in youth employment
  - changes in ‘early retirement’ behaviour
- Changes in population
  - growth in single person & single parent households
  - growth in migration
- growth in earnings and wealth inequalities
  - change in nature of income and earnings risks
… and increased empirical knowledge

- labour supply responses for individuals and families
  - at the ‘intensive’ and ‘extensive’ margins
  - by age and demographic structure
- importance of margins other than ‘simple’ labour supply
  - taxable income elasticities
  - tax-return information
- human capital responses and savings/social security incentives

Effective marginal tax rates: Lone Parents UK
Participation tax rates: Lone Parents UK

Budget Constraint: Lone Parents UK
Interaction of taxes, tax credits and benefits in the UK

The interaction of taxes and benefits in the UK

- Local tax rebate
- Rent rebate
- Work Tax Credit
- Income Support
- Net earnings
- Other earnings

fixed costs of work may be important too!

weekly hours of work

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**Tax rates on lower incomes**

**Main defects in current welfare/benefit systems**

- participation tax rates at the bottom remain very high
- Marginal tax rates well over 80% for low income working families because of phasing-out of means-tested benefits
  - in the UK this is Working Tax Credit + Housing Benefit + …
  - and interactions with the income tax system
- Are these effective tax rates too high?
- Depends on the key margins of response?
Male employment by age – US, FR and UK 1975

Male employment by age – US, FR and UK 2005
Can a lowering rates at the bottom be ‘optimal’?

• New insights from optimal tax theory show negative marginal tax rates can be an optimal design

• With participation effects, high tax rates at the bottom are no longer necessarily desirable and negative participation tax rates can be optimal (Saez, 2002; Diamond, 1980; Laroque, 2004)

\[
\frac{T_i - T_{i-1}}{C_i - C_{i-1}} = \frac{1}{\zeta_i h_i} \sum_{j \geq i} h_j \left[ 1 - g_j - \eta_j \frac{T_j - T_0}{C_j - C_0} \right].
\]

• Labour supply estimation suggest extensive margin is more responsive to incentives than intensive margin

### Structural Model Elasticities

(a) Single Mother Youngest Child Aged 11-18, UK

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### Structural Model Elasticities

(c) Single Mother, Youngest Child Aged 0-4, UK

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*Participation elasticity* 0.6352

- Implications for the optimal schedule …..

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**Implied Optimal Schedule, Youngest Child Aged 0-4**

![Graph showing implied optimal schedule](image)

- No hours rule
- 16 hours rule

Weekly earnings March 2002 prices £6 per hour

Blundell and Shephard (2008)
Some lessons from theory and evidence

- gross income taken in tax and withdrawal of benefits at low earnings is too high
  - the marginal rate of 75% that many low to moderate earners face is likely to be too high
  - some specific benefits, like housing benefit in the UK, have extremely high withdrawal rates. This exacerbates the problem of undesirably high marginal rates

- suggests a dynamic incentive structured around the age of the youngest child
  - incentives to work conditioned on age of youngest child
  - but efficiency gain from hours rule is limited, an optimality vs complexity trade-off

IFS Tax Rate Reform: lone parent

Brewer, Saez and Shephard (Mirrlees Review)
An optimal top tax rate ‘$t$’

- $e$ – taxable income elasticity

- $t = \frac{1}{1 + a \cdot e}$

- where $a \approx 2$ Pareto parameter.

- Estimate $e$ from the evolution of top incomes following large top MTR changes
Recovering the taxable income elasticity

- Top 1% income share increases from 6% to 12%
- Net-of-tax rate increases from 20% to 60%
  - elasticity \( e = \frac{2}{3}, \quad t_{\text{max}} = 43\% \)
- But is relative growth in top 1% due only to tax cuts?
  - compare with 1-5% group
- Taxable income elasticity falls to around .45
  - implies an ‘optimal’ top incomes tax rate a little over 50%

B. Top 5-1% Income and MTR, 1962-2003
Optimal Taxes and Migration

• Concern that individuals move to low tax countries
  – migration response is similar to an extensive response

• Optimal top tax rate with migration elasticity \((m)\) + intensive elasticity \((e)\) is:

\[
MTR=\frac{1}{1+a\cdot e + m}
\]

– does it change in recessions?
– nature of evidence on migration elasticity ‘m’ is weak

Tax Smoothing and Age-based taxation

• Age-based taxation will be optimal if
  – labour supply elasticities vary with age
  – if skill differentials increase with age
  – skill/earnings uncertainty varies with age
    • all are likely to be true

• Labour supply elasticities tend to be highest at either end of the life-cycle and for mothers of early school age children

• Tax smoothing through a life-time (expenditure) tax base allows individuals to ‘undo’ age-based earnings taxation
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• Interaction with saving taxation and tax smoothing..

for more theory and evidence see

The Mirrlees Review:
Tax by Design
http://www.ifs.org.uk/mirrleesreview/