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
• Key chapter (in Review): Brewer, Saez and Shephard (2008), http://www.ifs.org.uk/mirrleesreview/

+ 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

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?
Female Employment by age – US, FR and UK 1975

Female 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 …..

Implied Optimal Schedule, Youngest Child Aged 0-4

Blundell and Shephard (2008)
Implied Optimal Schedule, Youngest Child Aged 5-10

Blundell and Shephard (2008)

Implied Optimal Schedule, Youngest Child Aged 11-18

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

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**A. Top 1% Income Share and MTR, 1962-2003**

![Graph showing top 1% MTR and income share from 1962 to 2003](image-url)
Recovering the taxable income elasticity

- Top 1% income share increases from 6% to 12%
- Net-of-tax rate increases from 20% to 60%
  - elasticity $e = 2/3$, $t_{\text{max}} = 43\%$
- 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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for more theory and evidence see
The Mirrlees Review: Tax by Design
http://www.ifs.org.uk/mirrleesreview/