

Mirrlees Review: Labor Income Taxation and Means- Tested Transfer Programs

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Goals of Mirrlees Review regarding taxation of labor income and transfers

1. Analyze lessons from optimal tax theory for the design of labor income taxes and transfers
2. Apply those lessons to the UK:
 - Describe current tax/transfers in the UK
 - Simulate optimal tax/transfers in the UK
3. Identify issues that are debated among policy makers but not well explored in the economics literature

CURRENT UK TAX AND TRANSFER SYSTEM

Budget constraint is $c = z - T(z)$ where z pre-tax/transfer income

Two key concepts:

1. Intensive Margin: Marginal Tax Rate = $T'(z)$
2. Extensive Margin: Participation Tax Rate = $[T(z) - T(0)]/z$

In the UK:

- + Income Support creates high MTR, PTR at the very bottom
- + In-work tax credits reduces PTR for low income workers (16+ hours/week)
- + Payroll + income tax slightly progressive from middle to top

Figure 1A: Budget Constraint

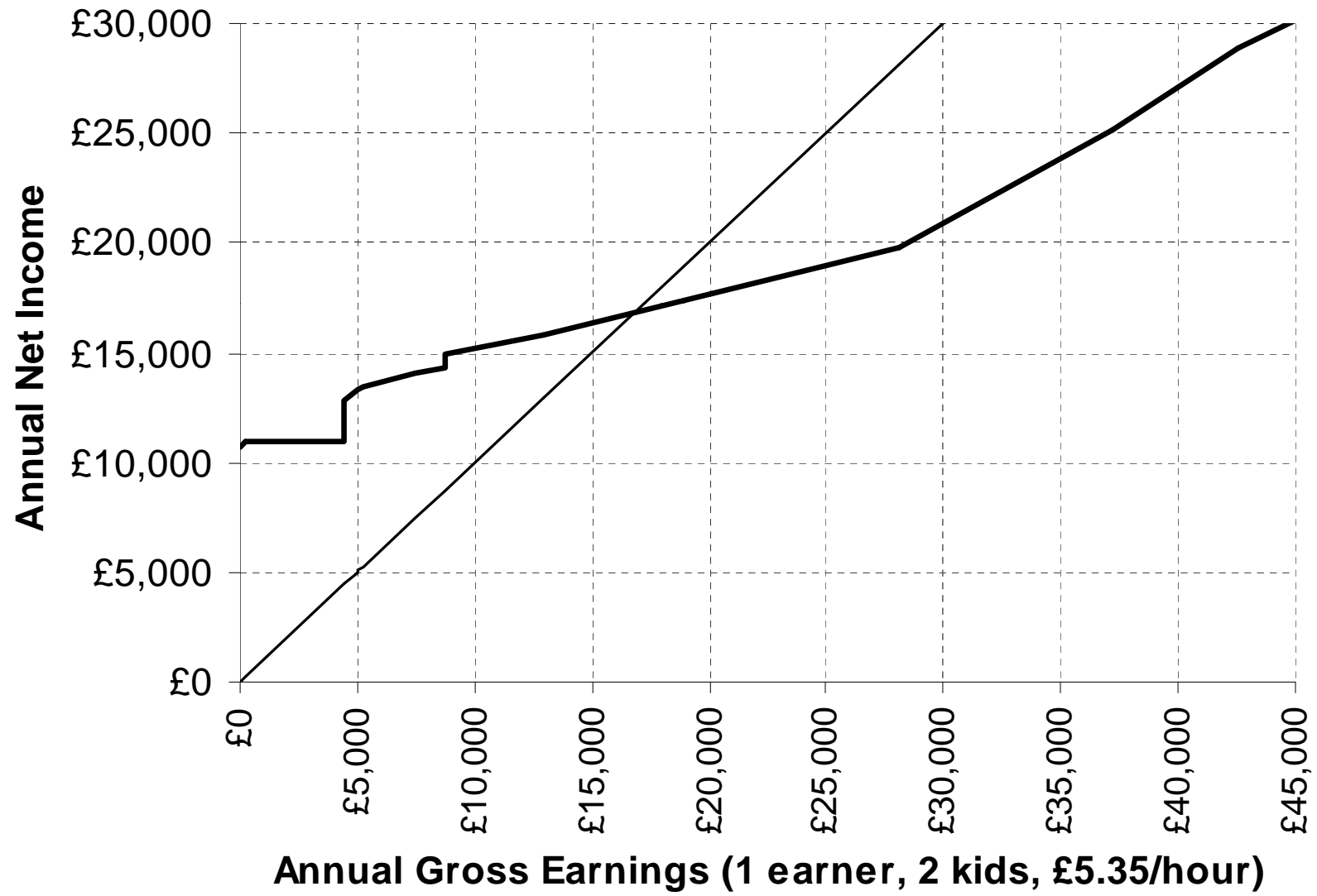
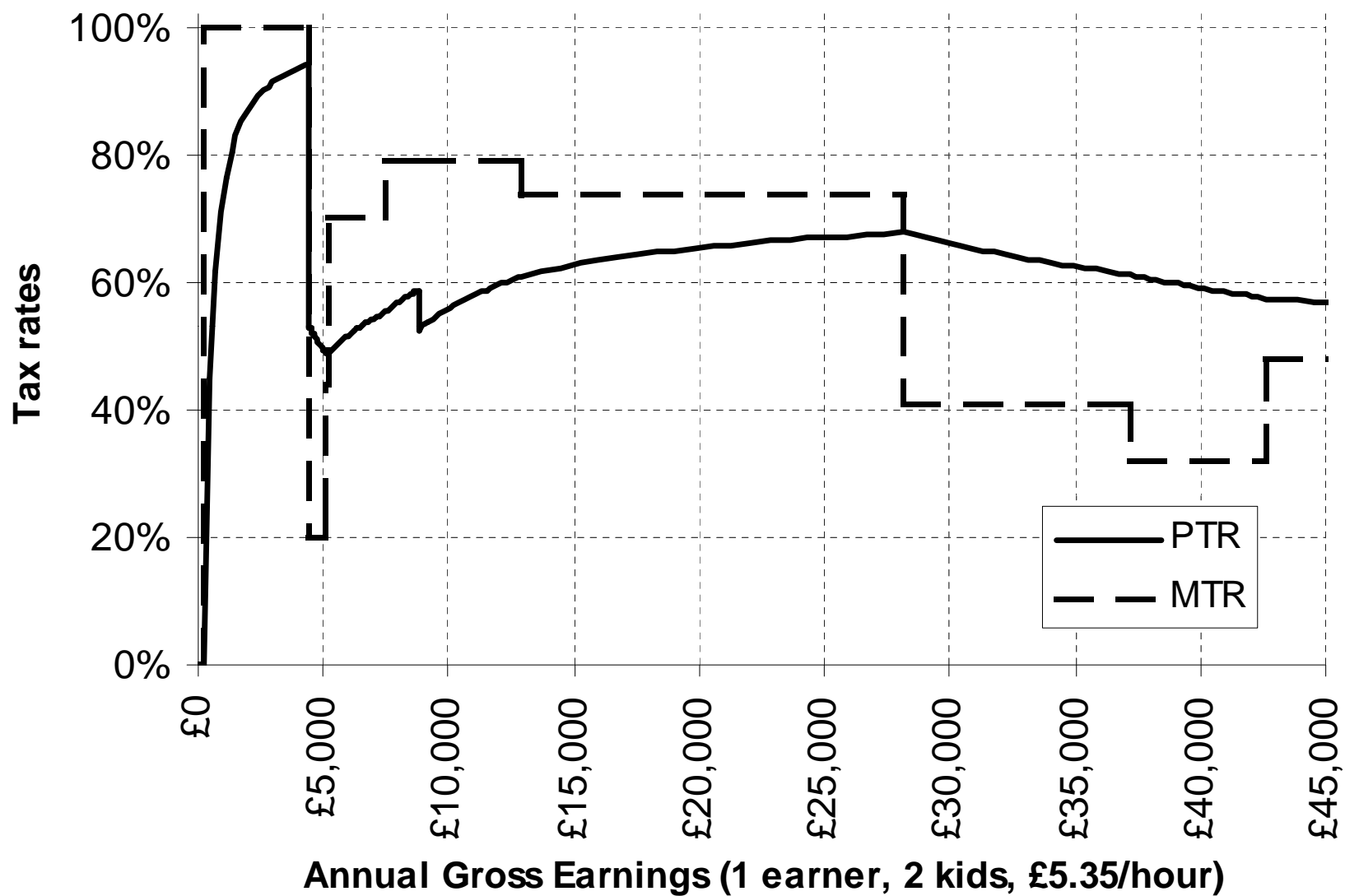


Figure 1B. Participation tax rate and marginal tax rate



OPTIMAL INCOME TAXATION IN MIRRLEES MODEL

Trades-off optimally **equity** and **efficiency** concerns

Equity: \$1 tax increase is socially more painful for low income than for high income families

Efficiency: Intensive Response of earnings captured by
 e = elasticity of earnings with respect to net-of-tax rate $1-T'$

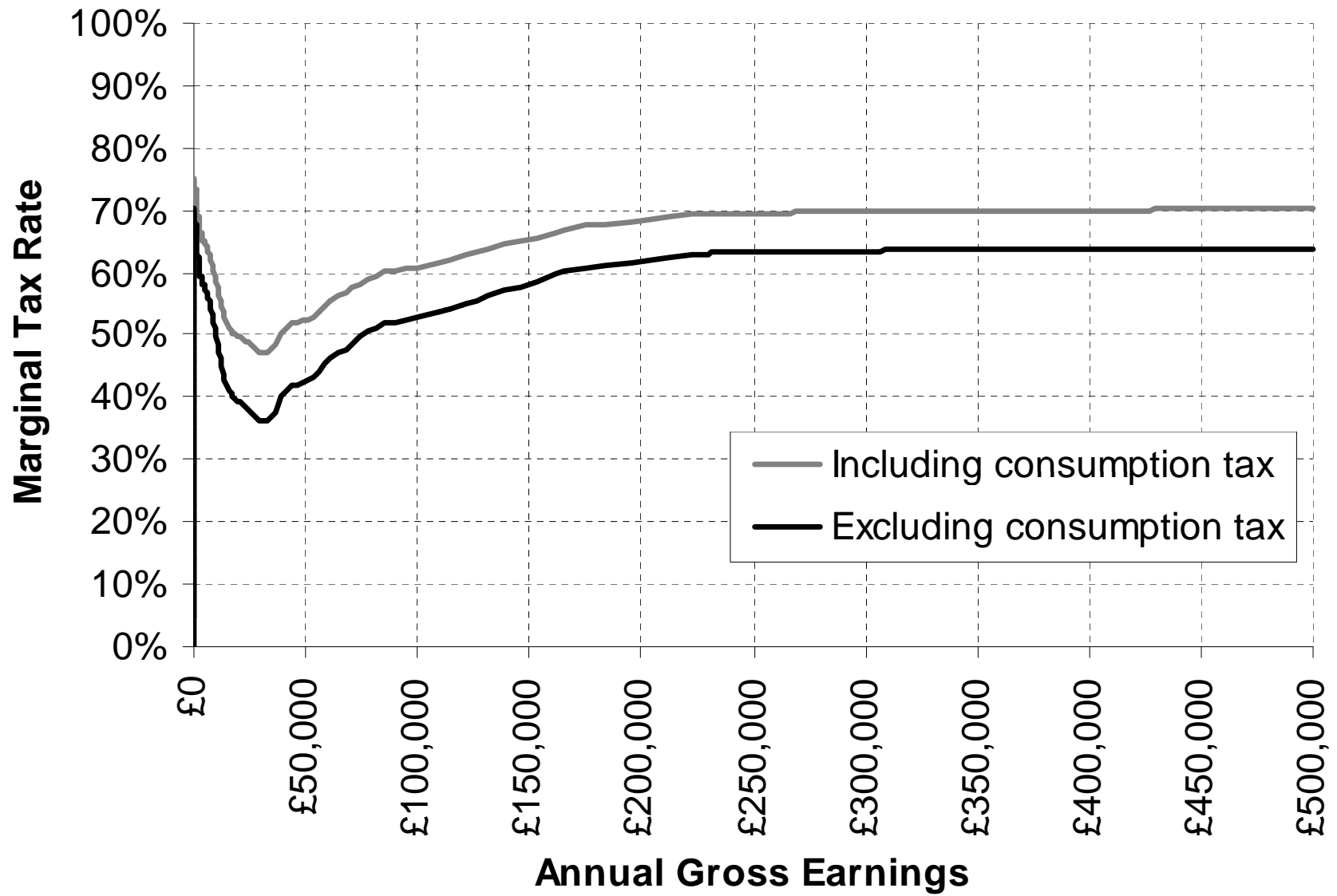
Optimal tax rate:

$$T'(z) = [1 - G(z)] / [1 - G(z) + a(z) \cdot e]$$

where $a(z)$ = Local Pareto parameter of the earnings distribution
 $G(z)$ = social value of giving \$1 to families with income above z

→ U-shape pattern to $T'(z)$ [as a function of z] is optimal

Figure 5: Optimal tax schedule



OPTIMAL TOP TAX RATE

Simple formula: $T' = 1 / (1 + a \cdot e)$

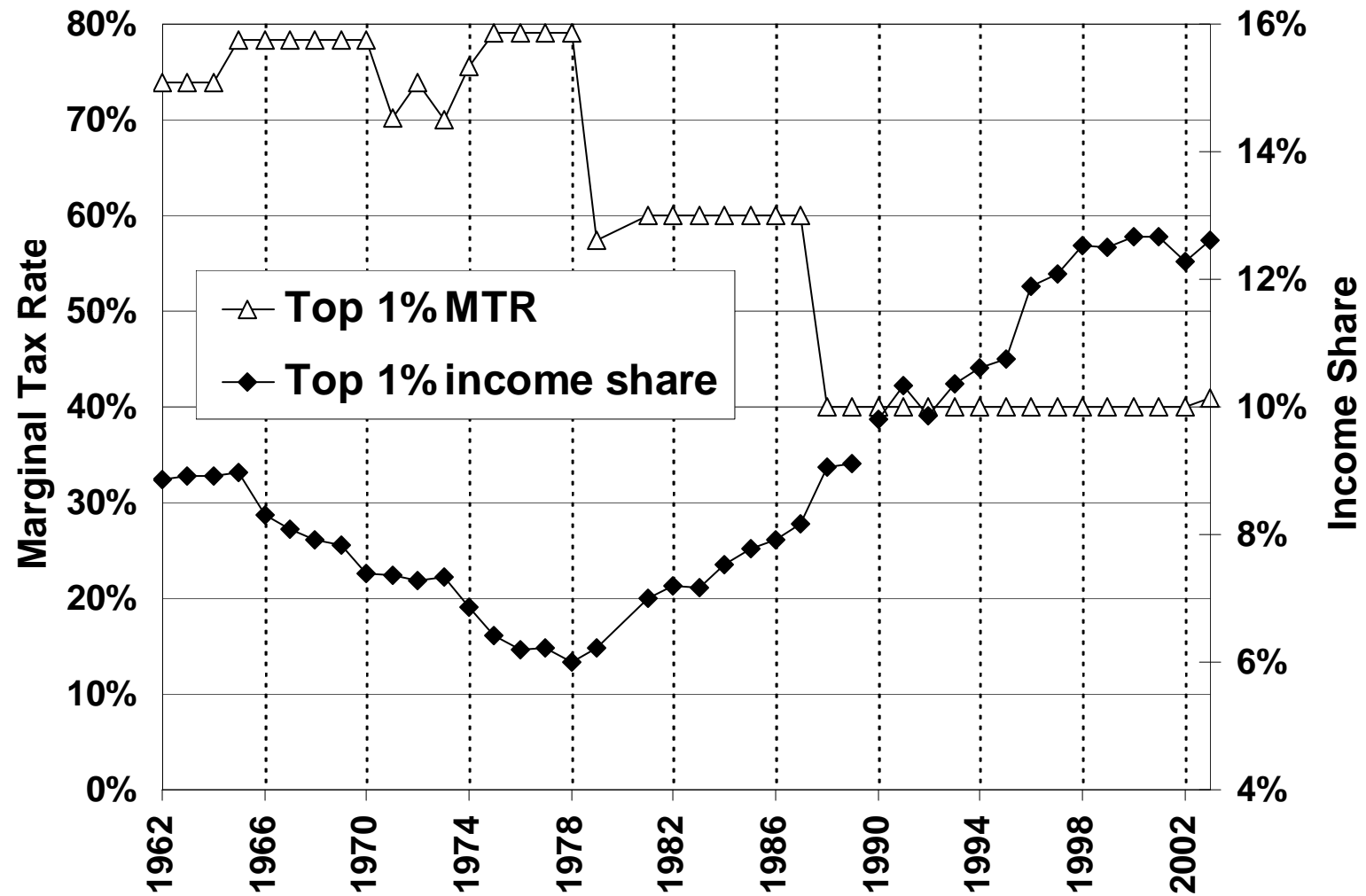
where a is the Pareto parameter and e the elasticity

Example: $a=2$ and $e=0.5 \rightarrow T'=50\%$

Issues with the theory:

- 1) At the top, e depends on tax avoidance opportunities \rightarrow
eliminating loopholes reduces e and allows higher tax rates
on top incomes
- 2) At the top, e might capture compensation bargaining effects
[lower $T' \rightarrow$ Top managers can extract higher pre-tax pay]

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



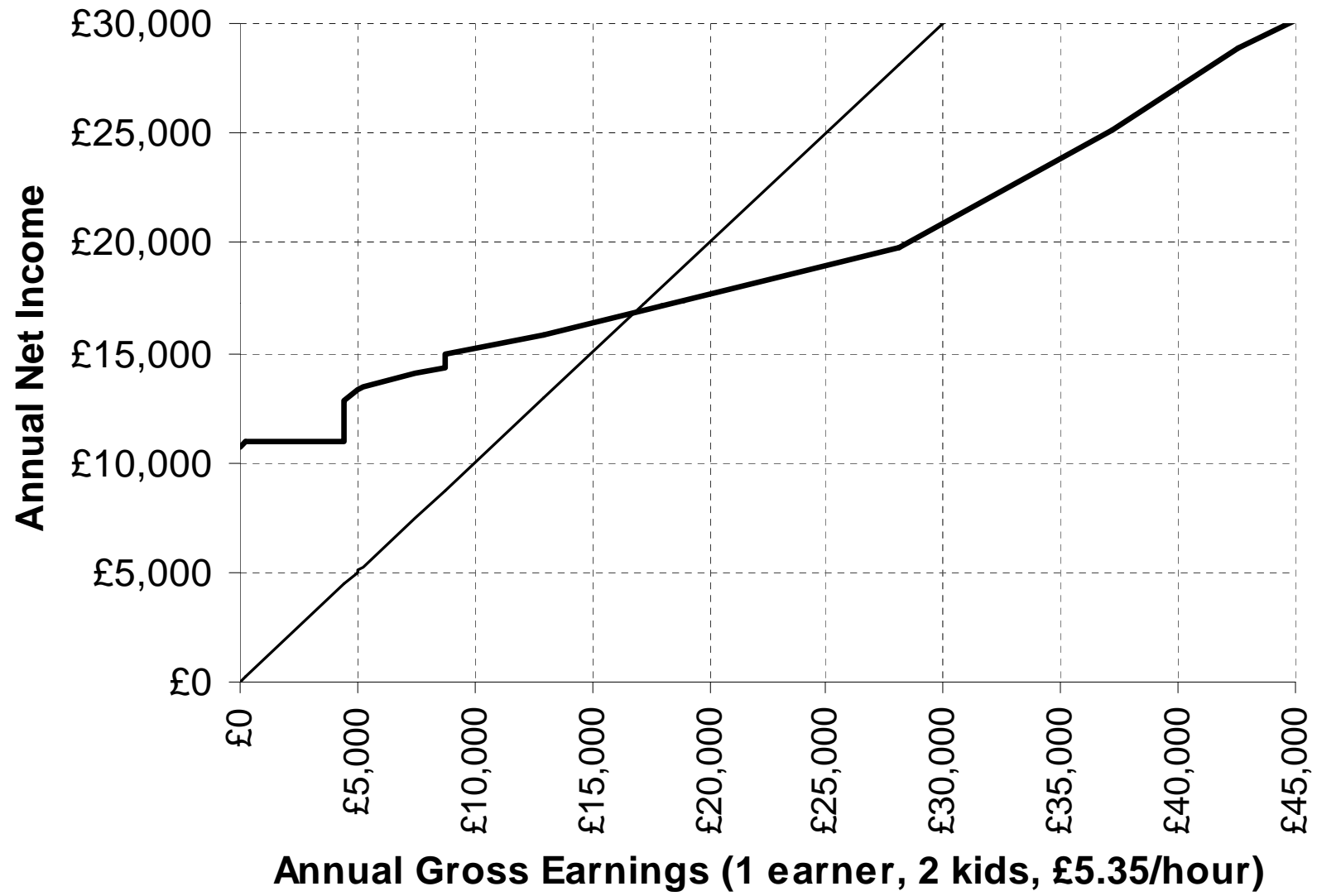
LOW INCOME TRANSFERS WITH PARTICIPATION EFFECTS

1. Empirical studies show that participation effects at the bottom are large (using expansions of in-work tax credits), especially for single parent families
2. With participation effects, high tax rates at the bottom are no longer desirable and in-work benefits can be optimal (Diamond, 1980; Saez, 2002, Laroque, 2004)

Logic is simple: starting from traditional welfare with high phase-out rate, introducing in-work benefits for low income workers is desirable for redistribution, promotes work which further saves government revenue

→ Many OECD countries have moved in that direction

Figure 1A: Budget Constraint



OPTIMAL TAXES AND MIGRATION

Concern in the EU context that top skilled individuals move to low tax countries such as Ireland or Switzerland

Migration response is similar to an extensive response

From a single country perspective, optimal top tax rate with migration elasticity (e_M) + intensive elasticity (e) is:

$$T' = 1/(1 + a \cdot e + e_M)$$

Empirical work on e_M is scarce: Footballers study [Kleven-Landais-Saez '10] suggests that e_M is relatively modest but not zero

Long-term solution will be **coordination** across countries

OTHER TOPICS: ADMINISTRATION

- The UK current tax system follows roughly rules of optimal taxation: (a) benefits for those with no incomes, (b) in-work benefits reduce PTRs at bottom and are phased-out higher in the distribution, (c) some progressivity at the top [with new 50% top rate]
- Administratively UK is a patchwork of programs:

Behavioral literature suggests that timing and framing of payments might be very important

Key difficulty: benefits need to be monthly while income tax need to be annual

Future IT Advances will allow real time processing of benefits and make taxes/transfers more transparent