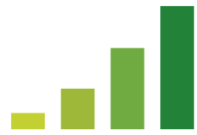# Taxation and Development: It's not just the size of it, it's where it comes from that counts

Laura Abramovsky, Paul Johnson and David Phillips

# The IFS approach – analysing tax and benefit policies

Paul Johnson

Analysing tax at the IFS

- IFS set up in late 1960s in response to shortcomings in UK tax policy making process

- Since then, we've shone a flashlight on the good, the bad, and the ugly of UK tax policy

  - Major reviews of the tax system (Meade, Mirrlees)

  - Our micro-simulation model, TAXBEN

  - Analysis of specific policies covering all areas of tax – VAT, corporation, income tax, NI, property tax etc

- (We hope) the independent assessment of policy helps improve policy-making, and inform public debate

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Understanding the distributional effects of policy (I)

- We use TAXBEN to simulate the distributional (and other) effects of policy: results often challenging pre-conceived notions

- Example 1: "VAT is regressive"

£ p.w. (right axis) •% of income (left axis) ×% of expenditure (left axis)
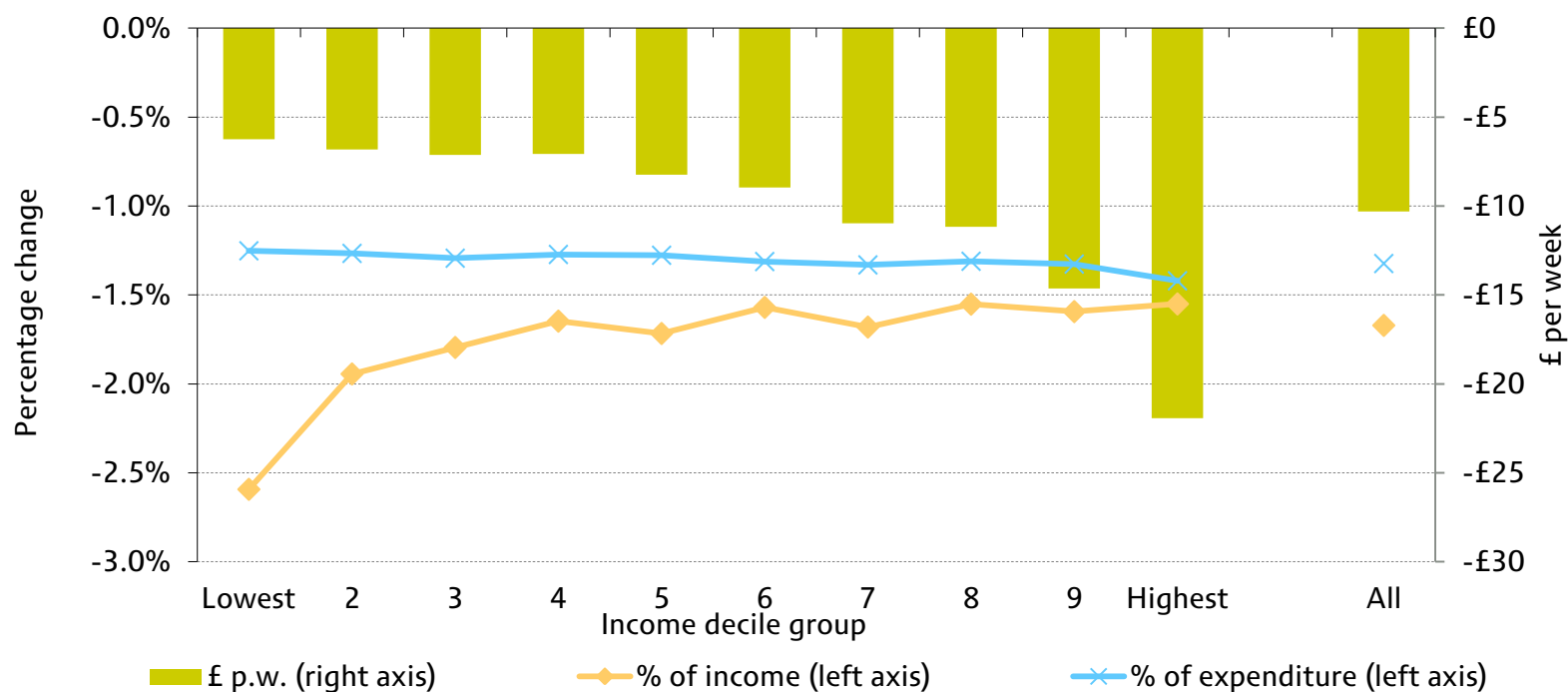
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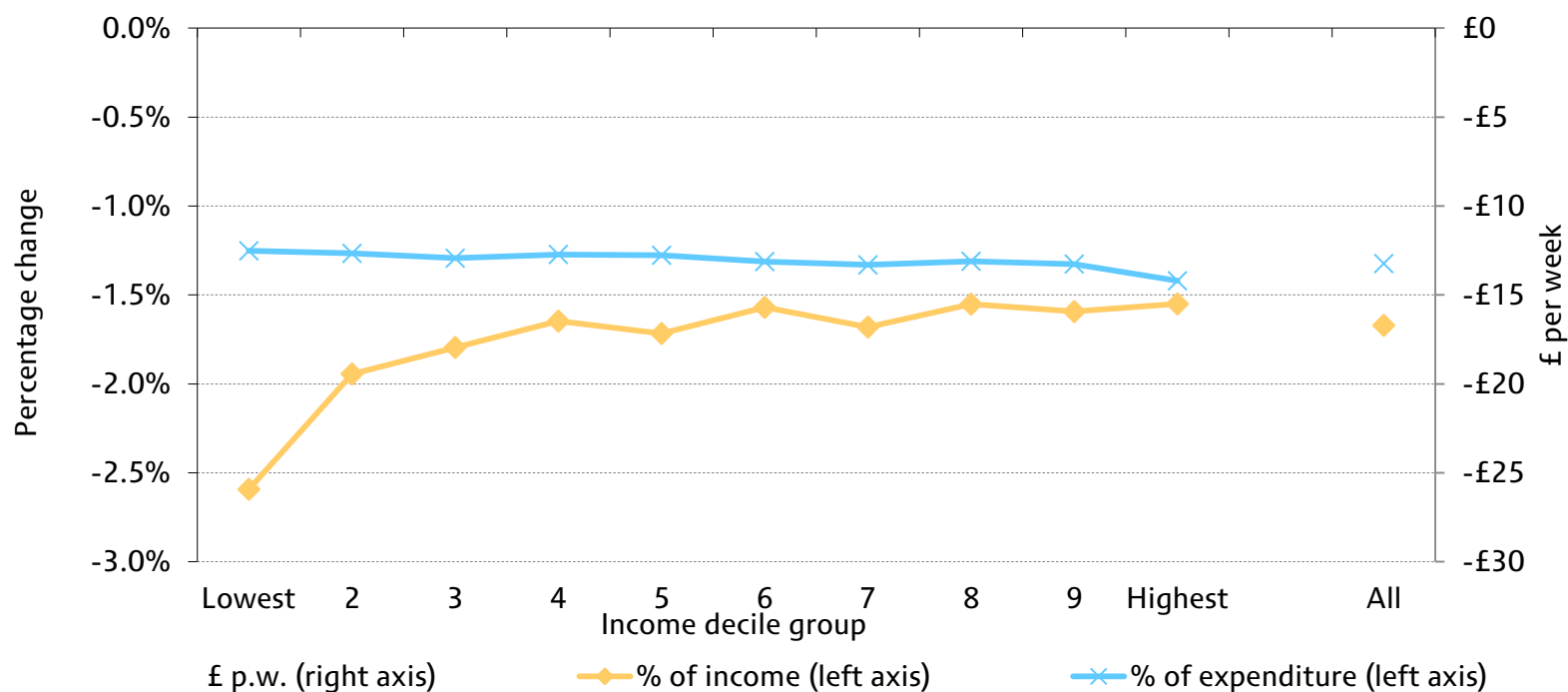
Understanding the distributional effects of policy (II)

- Example 2: "Increasing the income tax personal allowance is progressive"

Analysing impacts of policy on behaviour

- Tax and benefit policies can have desirable or undesirable behavioural effects – and sometimes both

- Example: the Working Families Tax Credit

- Evaluation of reform suggests it boosted employment rate of lone mothers by 3-5 percentage points
  - Small +ve effects on fathers, -ve effects on mothers in couples
  - In line with the change in financial work incentives

- But recent simulations suggest by boosting net income of low-earners, may reduce incentive for education

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Tax administration and enforcement

- Can also evaluate administration and enforcement

- What effects do audits have on subsequent reported income?

Figure 3: Impact of audit on reported tax liability: audit in any year
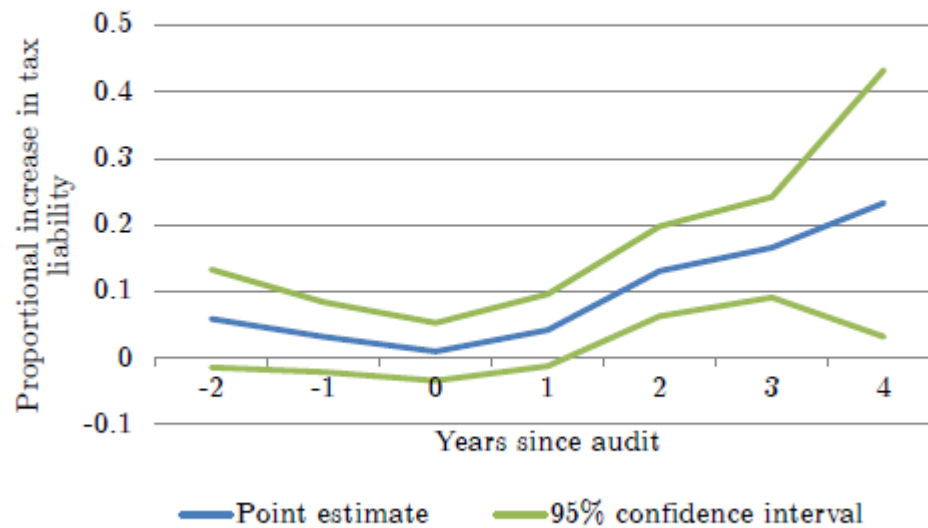
Taxes and benefits in developing countries (I)

- Taxation is receiving more attention from the development community

- Many developing countries need to raise revenues

  - Ensure fiscal sustainability

  - Increase spending on health, education or infrastructure

  - Reduce reliance on donor funding

- Design and operation of tax system is important part of 'state capacity' agenda

  - And key to government-citizen relations

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Taxes and benefits in developing countries (II)

- As countries develop they often begin to build systems of benefits (cash transfers)

  – To help tackle high levels of inequality and poverty

  – To create space to reduce wasteful subsidies, and raise taxes that would otherwise hit the poor

- Such systems need to be well targeted to make efficient use of limited resources

  – And effects on behaviour and efficiency need to be analysed

- Understanding the effects of tax and benefit policy therefore of growing importance in many developing countries

- Applied empirical research is key to this
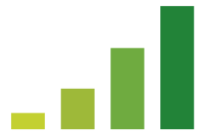
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Analysing tax and benefit policies in developing countries

Laura Abramovsky and David Phillips

Taxation in developing countries @ the IFS

- IFS has been working on issues in developing countries for 12 years

    – Since 2009, this includes tax and benefit design

- Undertaken a range of analyses

    – Built and utilised tax micro-simulation models for Mexico and El Salvador to analyse revenue, distributional, and behavioural effects of reforms

    – Analysed effects of pension reforms in Chile on equality and economic informality

    – Quantified the changes in corporate tax systems in developing countries since the 1990s

    – Assessed the lessons that can be learned for developing countries from the "Mirrlees Review" principles

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Three interlinked areas of 'Tax Policy'

- Tax design
  - How taxes are structured

- Administration of the tax system
  - Process by which the tax system is enforced and tax is collected

- Political economy aspects of taxation
  - Constraints placed upon tax design and administration

- We will show, using examples, why tax design and analysis of tax structure is just as important as the other two
  - And how they all link together

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Tax revenues are rising in low income countries…
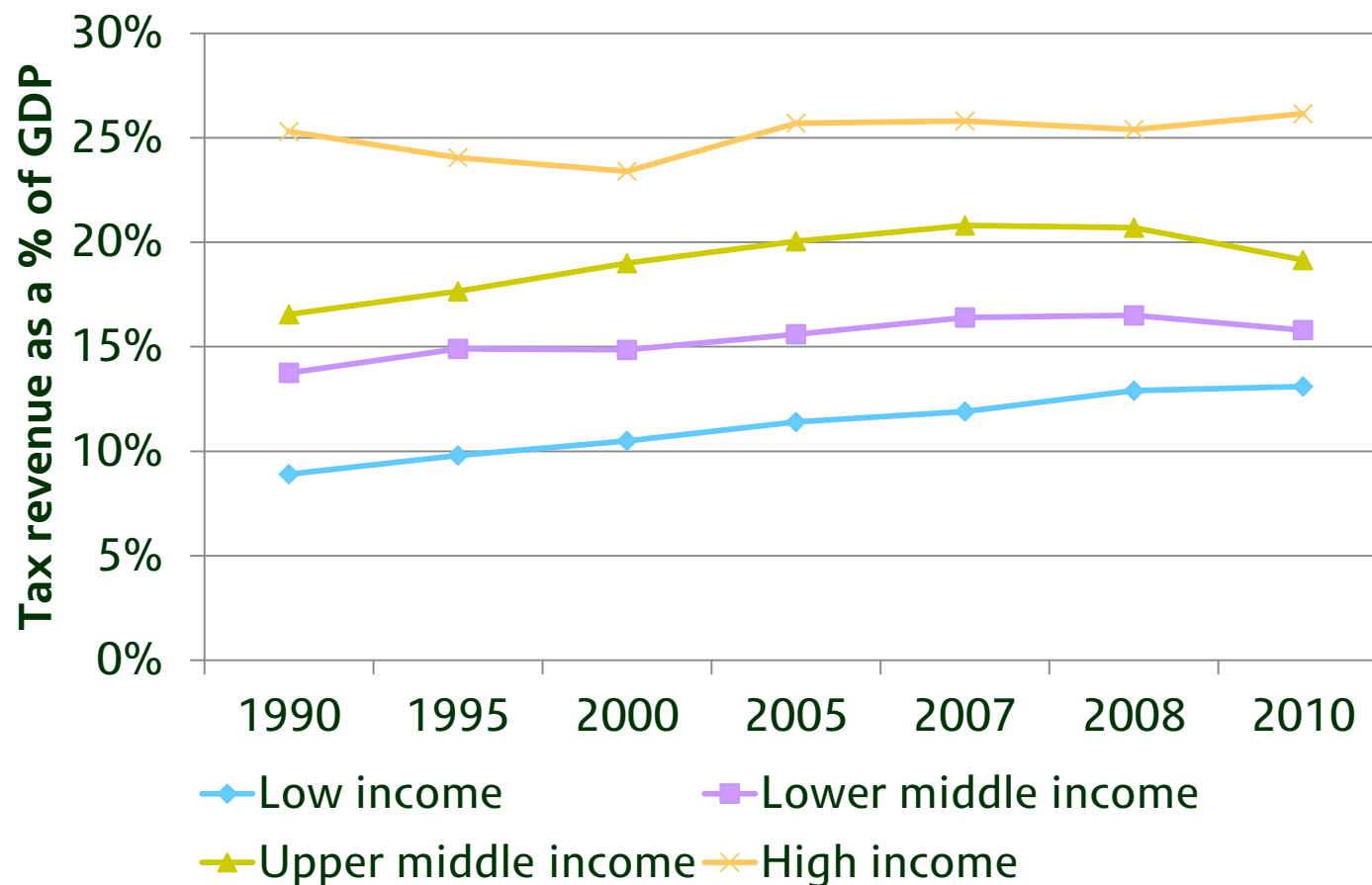
… but remain a constraint on investment

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Differences in tax revenue structure large and persistent…

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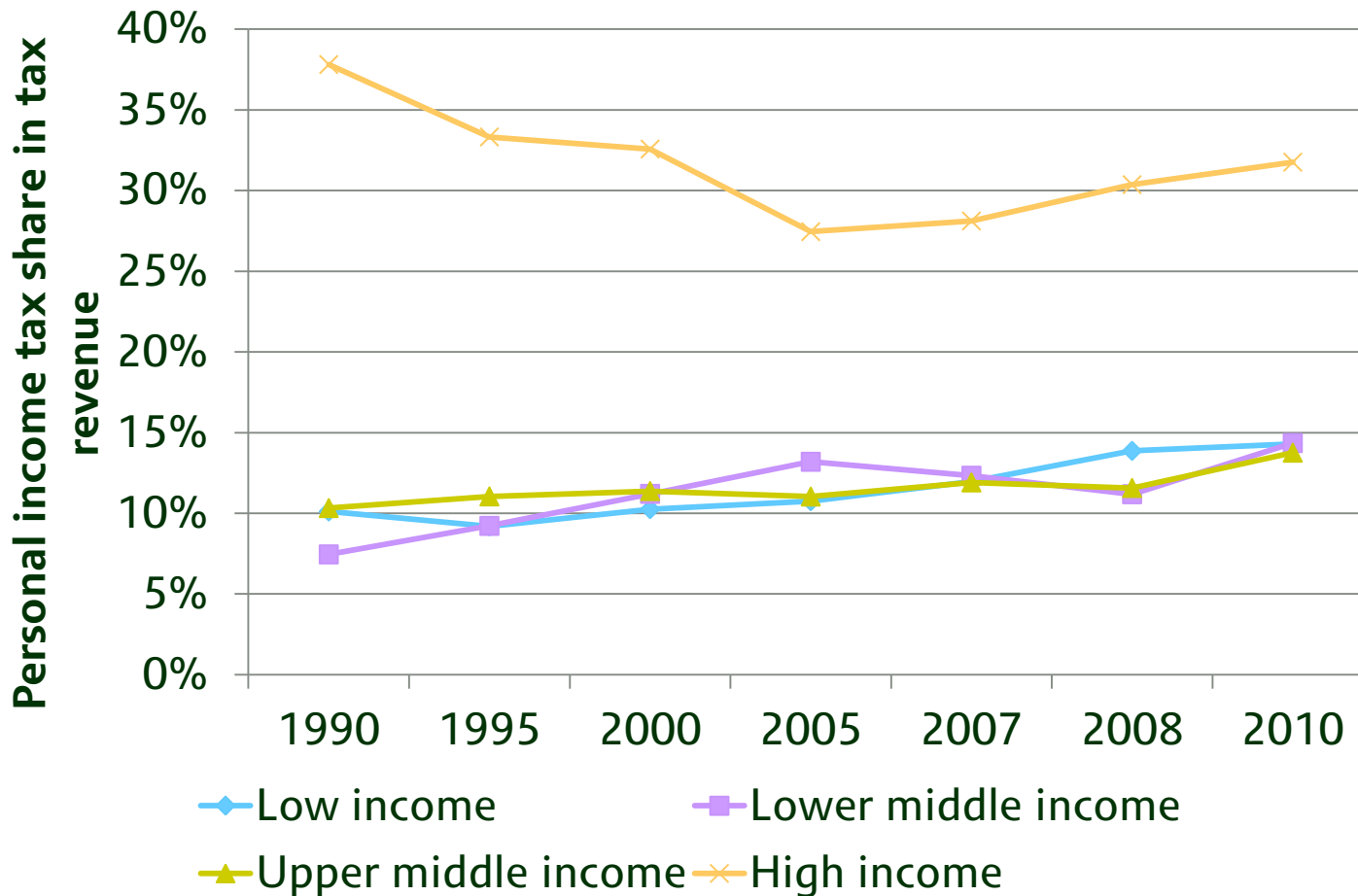
DfID is funding significant work on taxation

- Collaboration with the HMRC to improve tax administration in different developing countries

- Country specific projects

  - E.g. Afghanistan, Nigeria, different states of India, Mozambique, Ethiopia, Pakistan

- International Centre for Tax and Development (ICTD)

- International Growth Centre (IGC)

  - One component of which is "Public Sector and Revenue"

- But much of the focus of this work is on tax administration, and political economy of taxation

  - Or led by senior academics who may not have incentive to replicate analysis in different countries

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Analysis of tax design: why is it important?

- Analysis of tax design is key to understanding the efficiency of the tax system – both in terms of revenue, and wider economic effects

  - Poorly designed taxes can distort and harm the economy

- Interaction between tax design and tax administration

  - Complex taxes with lots of exemptions, and different rates for different activities is harder to administer, and may create opportunities for corruption

- Understanding distributional effects of different policies is key

  - Are costly exemptions aimed at redistribution actually well targeted?

  - Are suggested reforms hitting poor groups?

- Analysis of tax design is an empirical exercise

  - Answers depend on specific policies and country context
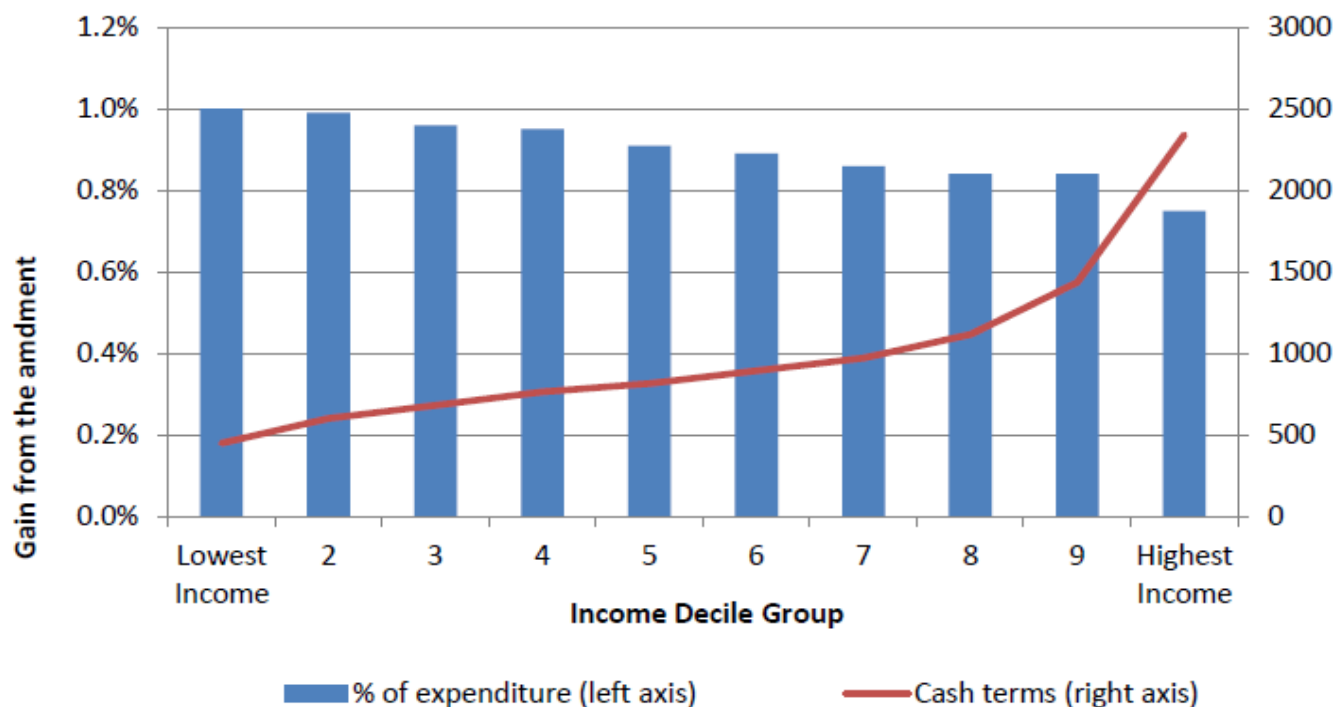
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Examples

- Using micro-simulation models to analyse distributional, revenue and behavioural effects of tax policies

  - VAT reforms in Mexico

- Analysing the efficiency and revenue effects of tax policy using administrative data

  - Corporate income and turnover taxes in Pakistan

- Analysing the long-term effects of policies on informality

  - Pensions reforms in Chile

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Example 1: Microsimulation in Mexico (I)

- Micro-simulation models allow simulation of distributional and behavioural effect of policies at level of *individual household*.

- Household survey data (e.g. budget surveys), and sometimes other sources (e.g. admin or national accounts data)

  - Increasingly available in developing countries

- We built one for Mexico, initially to analyse 2010 tax reforms

  - Debate about proposed 2% tax on all goods and services

  - In the end, standard rate of VAT increased 1% instead

  - This amendment was to make reforms more 'progressive'

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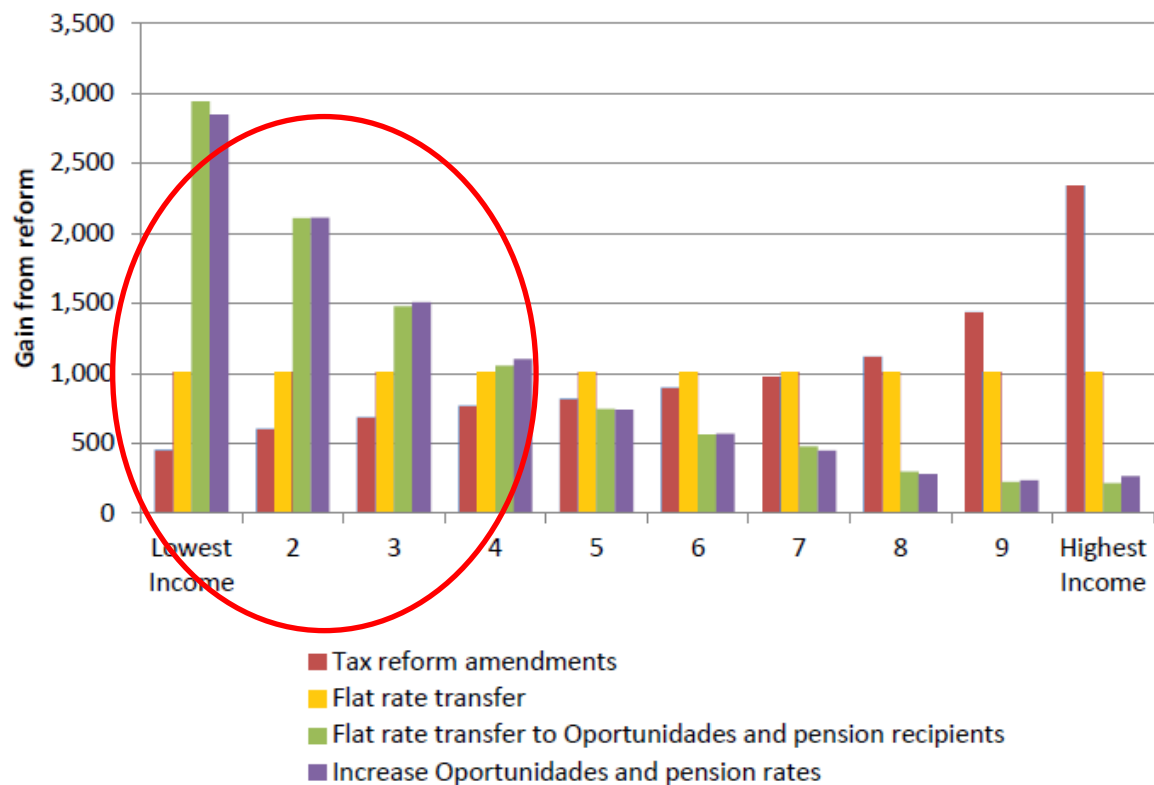# Example 1: Microsimulation in Mexico (II)

Figure 2. Gains from the replacement of the CCP with a VAT measured as a percentage of household expenditure and in cash terms (Pesos per annum)

Source: Authors' calculations using ENIGH 2008 and MEXTAX

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Example 1: Microsimulation in Mexico (III)

Figure 3. Cash gains from alternative ways of spending the revenue foregone through the amendments to the 2010 tax reforms (replacing the CCP with the VAT rise), across the income distribution

Source: Authors' calculations using ENIGH 2008 and MEXTAX.

Example 1: Microsimulation in Mexico (IV)

- Microsimulation models can also incorporate behavioural effects

  - e.g. Higher taxes reduce formal labour supply and/or consumption, reducing yield

- One area to explore – is this a reason to impose lower rates of VAT on goods like food?

  - If tax them, shift to home production and informal sector

  - Undermine revenues, and hold back formal economy

- Flips usual arguments on their head

  - Exempt some goods for efficiency *not* equity reasons

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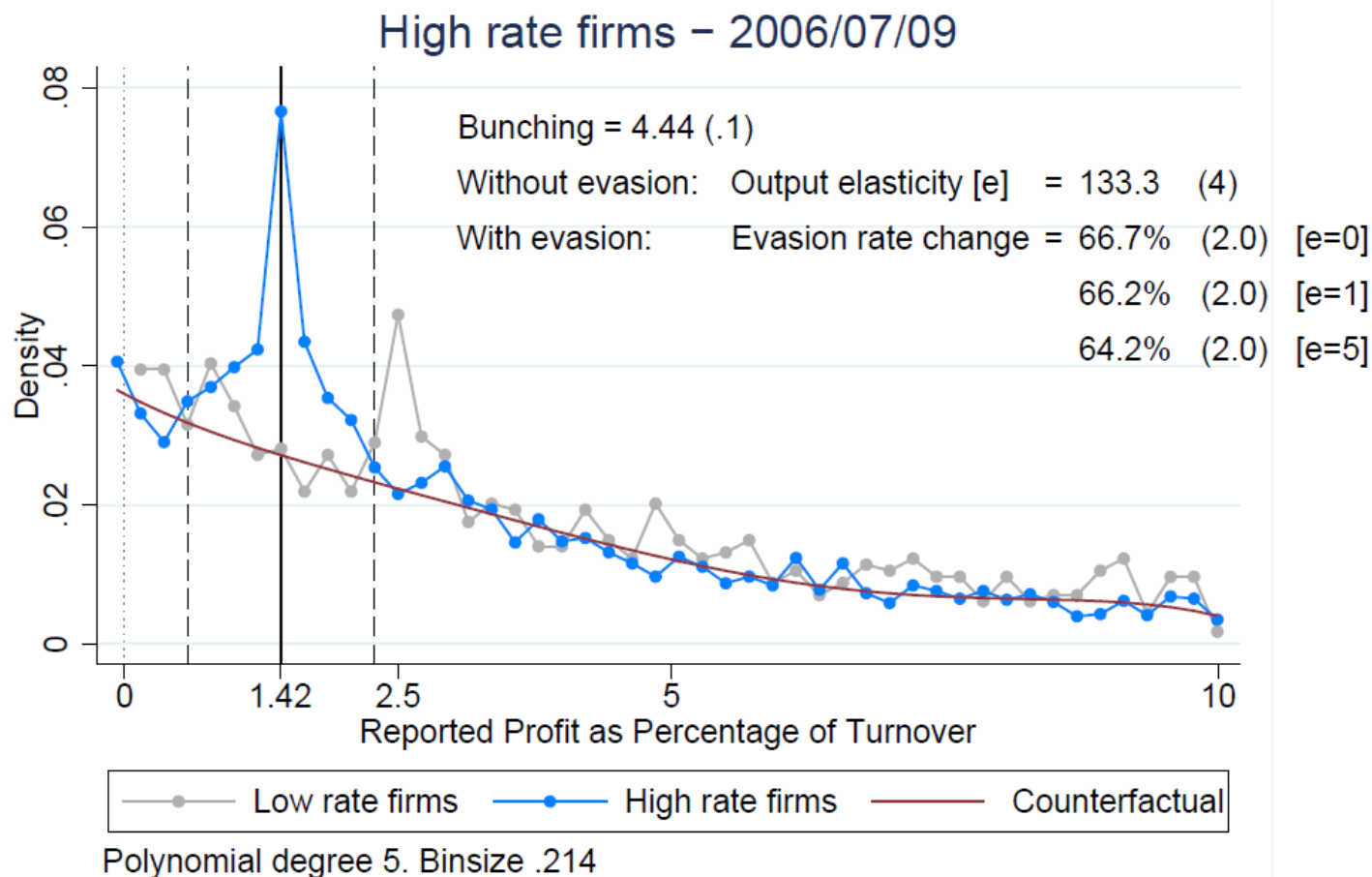Fiscal Studies

Example 1: Applicable elsewhere?

- Many countries levy a lower or zero rate of VAT on basic goods
  - Examine whether this policy is sensible given context (e.g. ability to redistribute using other means; informality)
- India is considering a comprehensive reform of indirect tax
  - Can look at distributional and behavioural effects
- Analysis of costly energy, food or water subsidies
  - What is the distributional effect? Designing packages to compensate poor if removed
- Increasing revenues to fund, e.g. increased spending on healthcare and schools
  - Analyse distributional and efficiency effect of different funding
- Results may differ significantly across countries

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Example 2: Analysing Pakistani Corporate Tax (I)

- A lot can be learned from analysis tax admin data too
    - High quality and accurate
- Best et al making use of tax admin data from Pakistan
    - Look at admin issues, and design issues
- Corporate tax in Pakistan
    - 35% tax rate on profits
    - Or 0.5% tax rate on turnover
    - Pay whichever is *higher*
- Turnover taxes are generally frowned upon by economists
    - Inefficient and distort production
- But may be a role when problems administering profits tax

Example 2: Analysing Pakistani Corporate Tax (II)
Estimating Evasion

High rate firms − 2006/07/09

Bunching = 4.44 (.1)

Without evasion: Output elasticity [e] = 133.3 (4)

With evasion: Evasion rate change = 66.7% (2.0) [e=0]

66.2% (2.0) [e=1]

64.2% (2.0) [e=5]

Reported Profit as Percentage of Turnover

Low rate firms ——●—— High rate firms —— Counterfactual

Polynomial degree 5. Binsize .214

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Example 2: Analysing Pakistani Corporate Tax (III)

- Easier to avoid profits tax than turnover tax by overstating costs

  – Results suggest avoidance/evasion using cost-overstating may be reducing amount of profits tax paid by more than 60%

  – Turnover tax stops this

- Type of corporate tax regime depend on ability of tax authorities to enforce tax rules

  – If poor, then modest turnover tax as a back-up, may be good

  – As improve, want to move away from this

- Again shows context specific nature of 'good' tax design

  – Analytical tools and ideas same, but specific policies differ from developed countries – and across developing countries

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Example 2: Highlighting bad design

Figure 3: Minimum revenue tax schedule when $\Delta < 0$
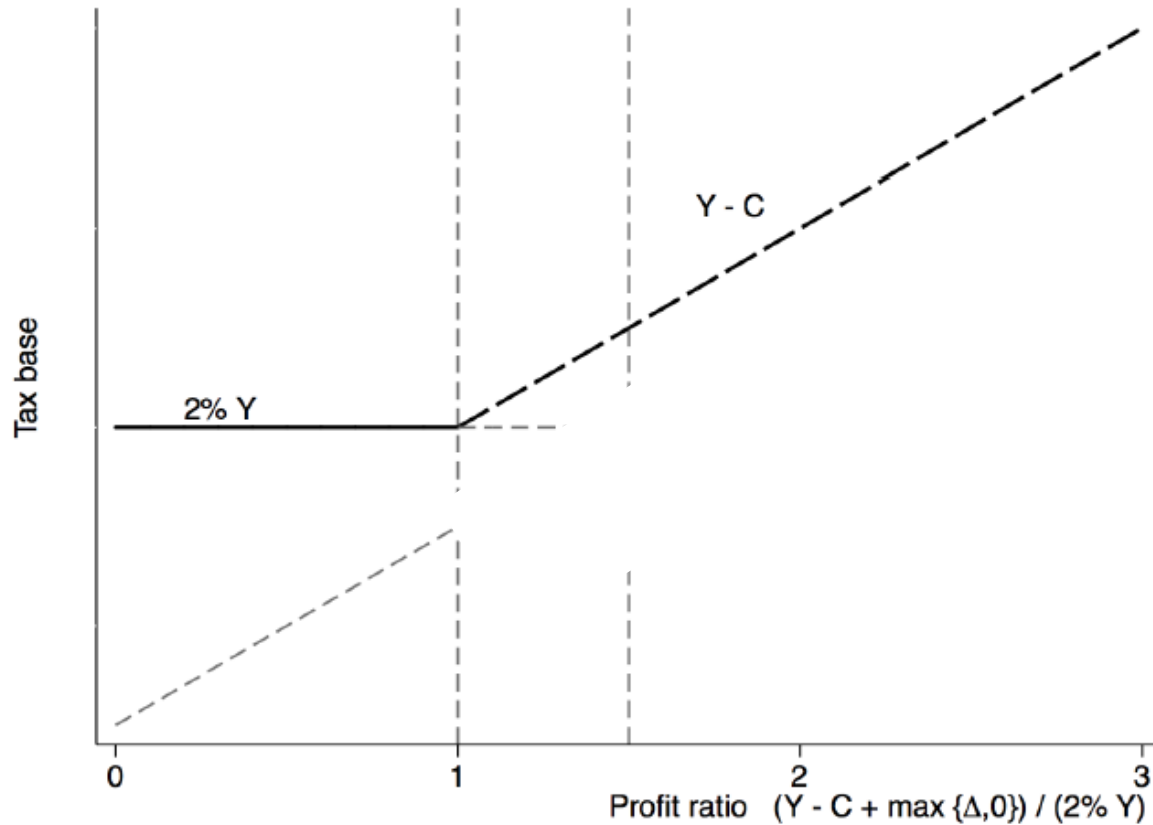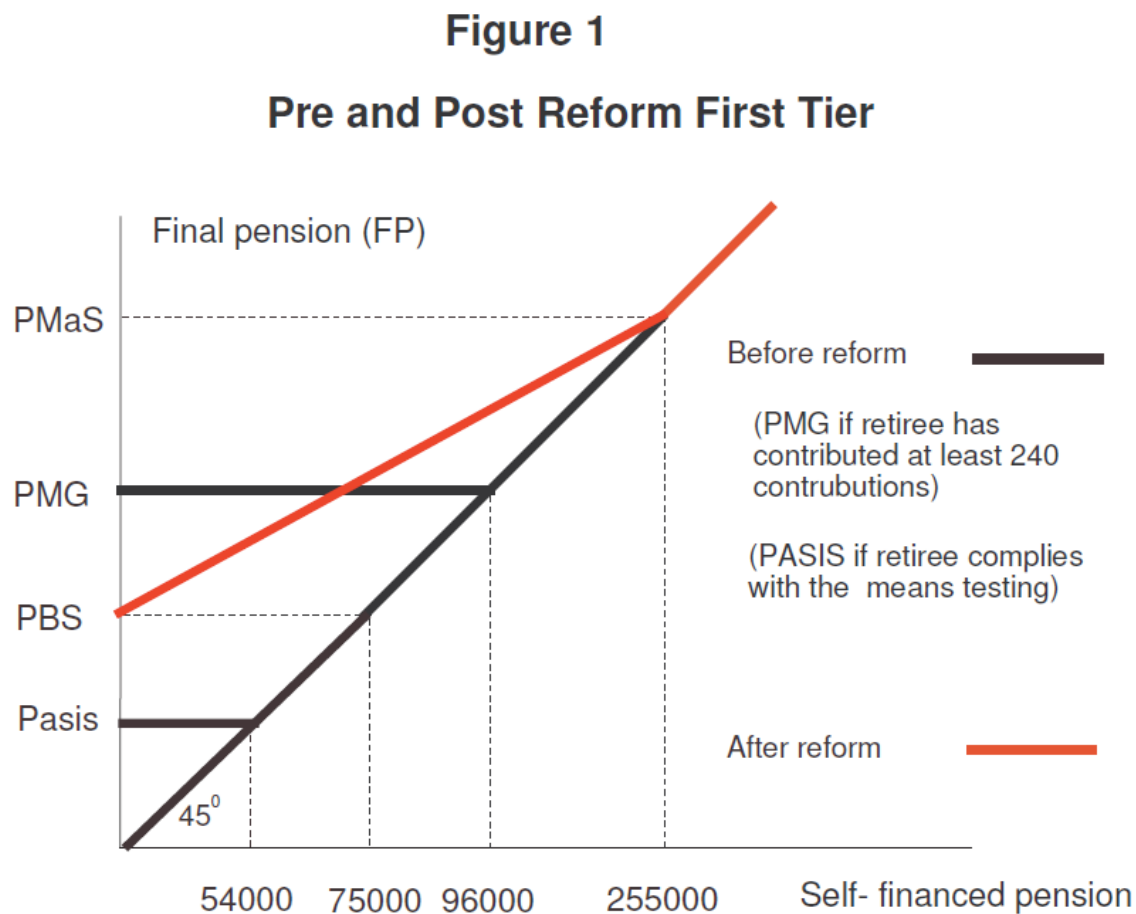
Example 2: Applicable elsewhere?

- A number of countries have such alternative minimum taxes

- Tax admin data can be used to look at other issues

  - Responsiveness of high income individuals to progressive tax rates

  - Cost exemptions or reduced rates – sometimes govts. don't know this

  - Whole range of tax admin policies

- The link between tax-admin and tax structure is key, and analysis of admin data is vital to understand this

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Example 3: Pensions in Chile (I)

- Analysis of tax and benefit reforms can also show unexpected results – unintended consequences of policies

- Reforms to state pension system in Chile provide an example

- Chile's state pensions have long been part-privatised, with pension linked to how much contributed
  - Means-tested and contributory 'minimums'

- Major reforms undertaken in 2008
  - Increase progressivity of system, and boost pensions of women
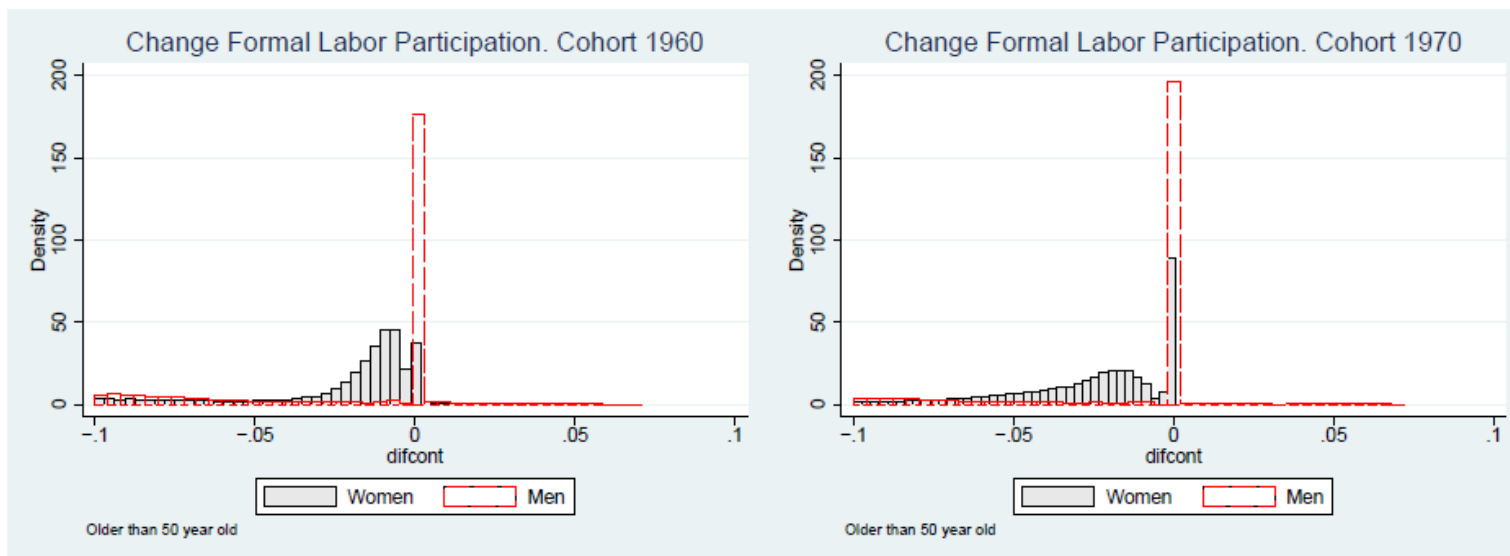 - Boost incentives to contribute and be employed formally

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Example 3: Pensions in Chile (II)

The Incentive Structure of the Reform

Figure 1

Pre and Post Reform First Tier

Example 3: Pensions in Chile (III)

Changes in Informality

Example 3: Pensions in Chile (IV)

- So economic analysis of a reform shows it might not actually deliver all its aims

  - Can even work *against* aims

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Example 3: Applicable elsewhere?

- Pensions policy not only an issue for middle income countries
  - Many African and Asian countries operate contributory systems for formal sector workers – how can coverage be expanded?

- Similar incentive effects may be going on in other areas too
  - Roll out of free or subsidised healthcare systems alongside contributory systems – undermine incentive to be formal?
  - Again, some evidence of this and lessons from Latin America

- More generally, assessing tax and benefit policies to ensure not having undesirable consequences important
  - VAT encourage informality
  - Reduced rates for partic. activities or groups distorting behaviour

Cross-cutting themes

- Helping equip developing countries to analyse tax design and improve tax design therefore can have real gains

    - Distributional

    - Economic growth

    - Boost revenue

- And interlinks with agenda on tax admin, and political economy of the policy-making process

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The interlinkage of tax policy
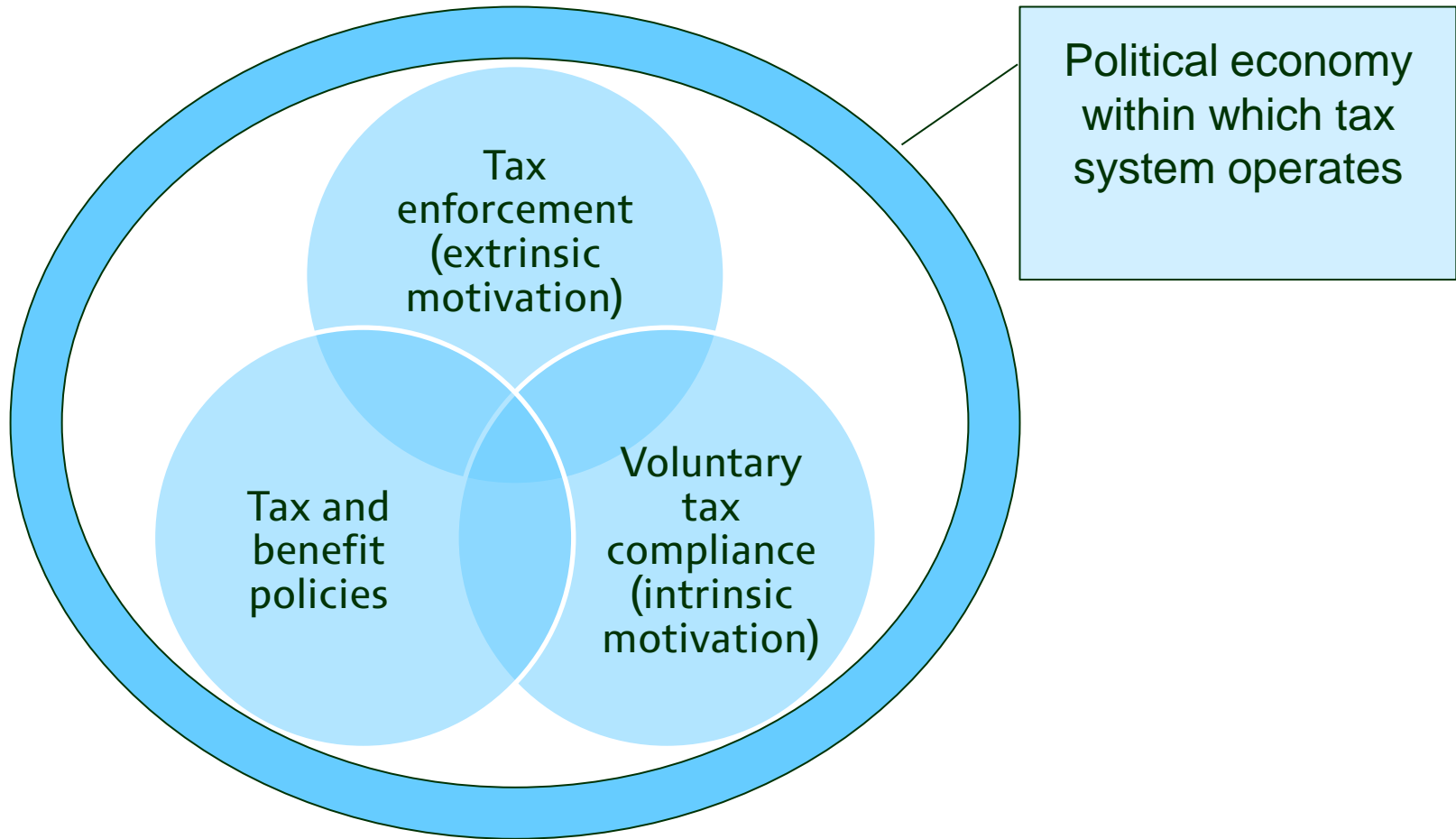
Summary

- Tax/benefit policy is important and links to admin and broader political economy of tax

- Theoretical and empirical analysis can generate powerful results with strong policy relevance

- Results likely to be context specific

  - Dependent on economic structure (e.g. extent of informality, proportion of self-employed)

  - The range of instruments available (e.g. targeted benefits)

  - Administrative and enforcement capacity

- Implies analysis needs to be done in a range of countries

  - Rolling out underutilised simpler tools like microsimulation

  - Undertaking cutting edge research

- Support building in-country capacity for ongoing policy analysis

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