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Principles of tax design: lessons for taxing goods and services

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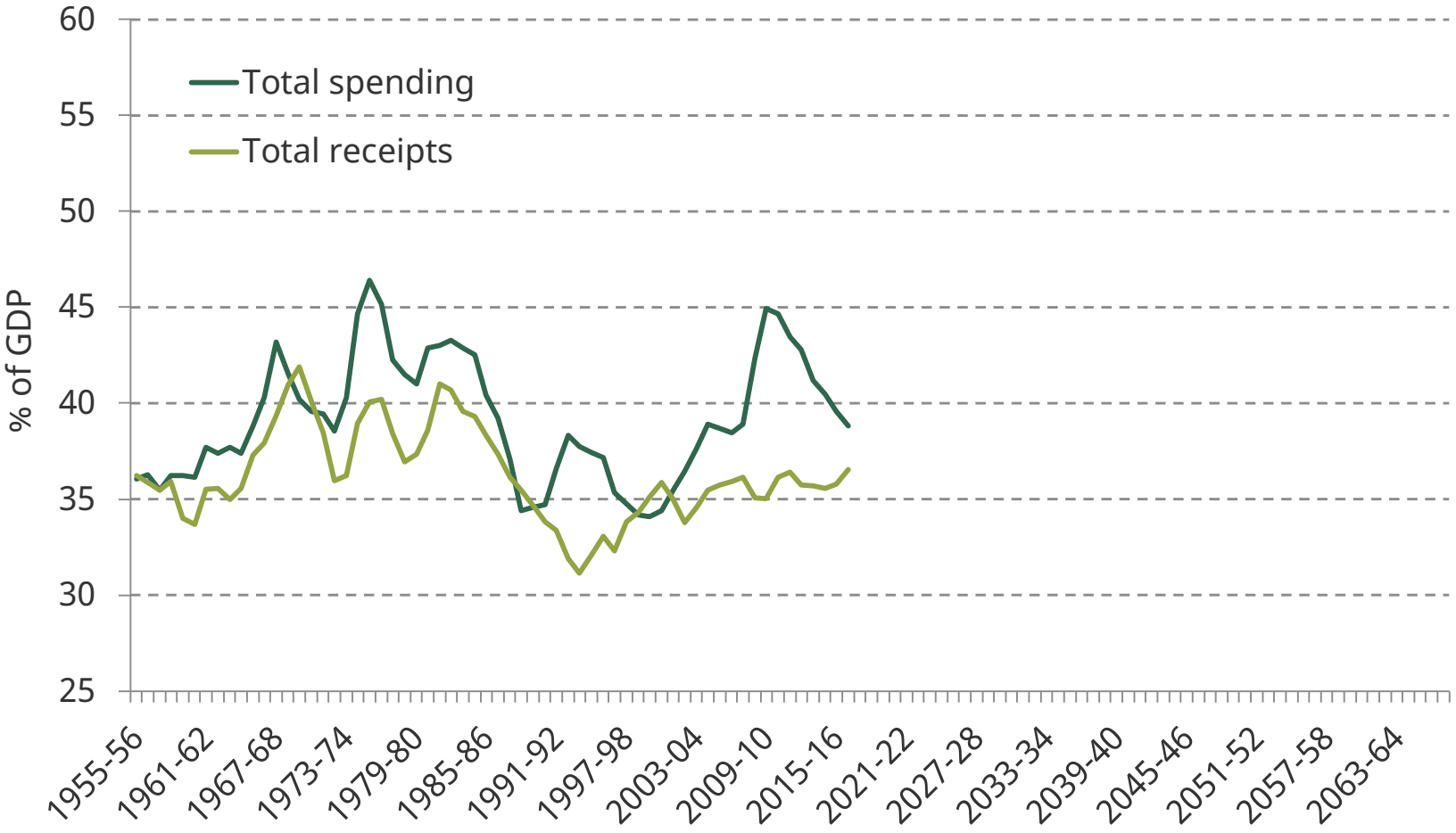
January 10th 2020, IFS Public Economics lectures

Motivation 1: Public spending



Source: OBR Fiscal Sustainability Report July 2018 and OBR Economic and Fiscal Outlooks March 2018.

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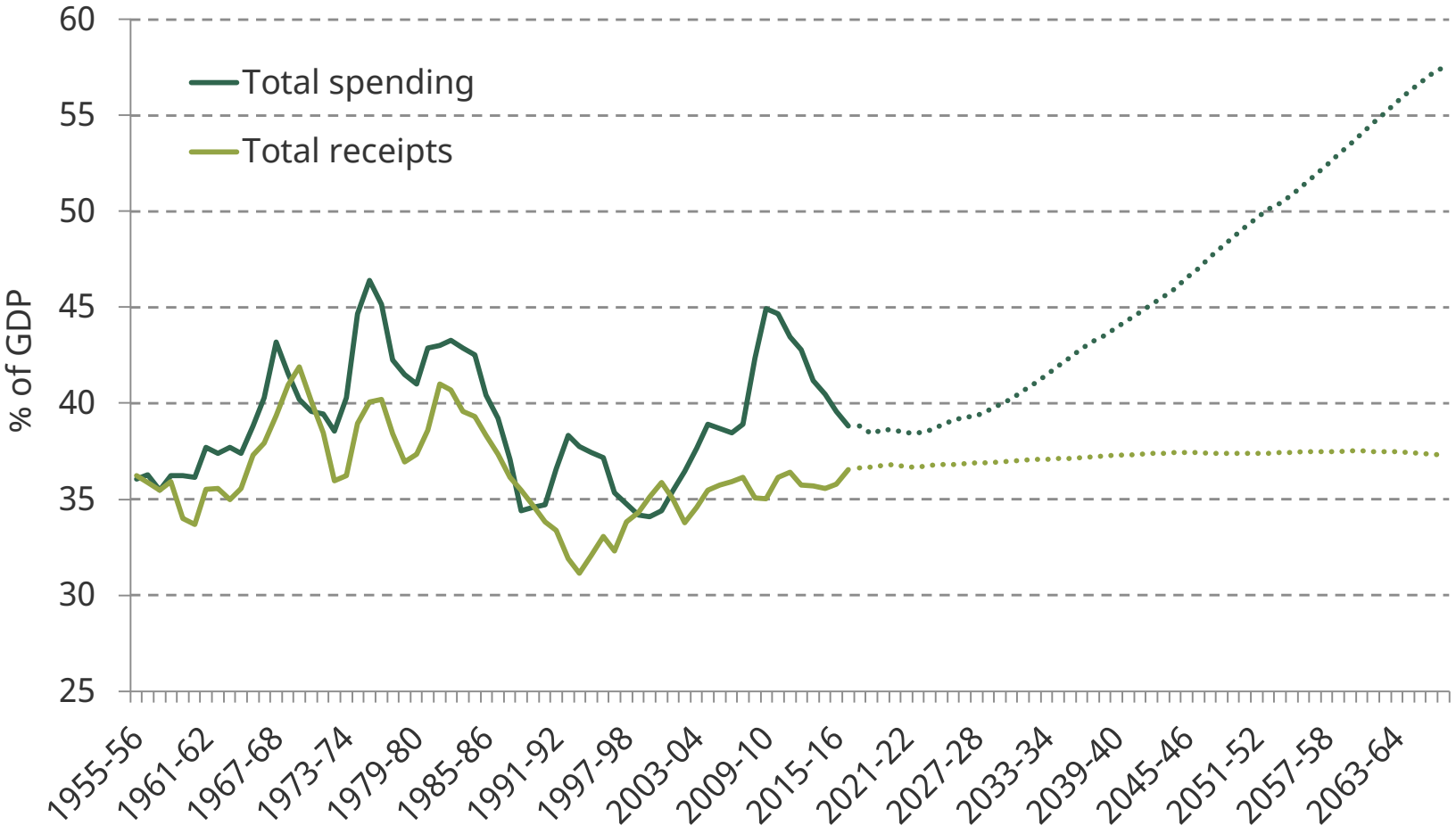

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Motivation 2: Redistribution

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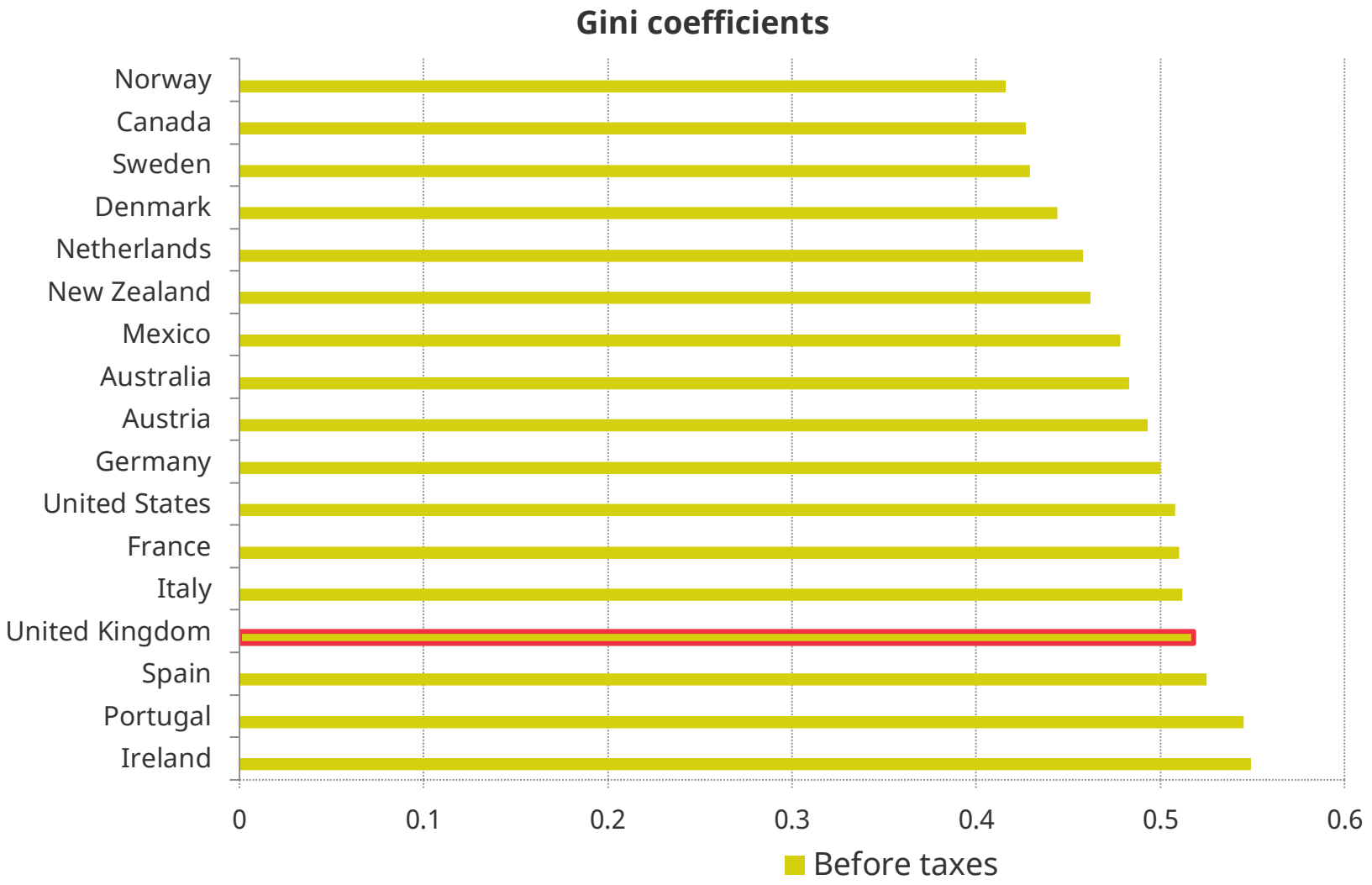

Motivation 2: Redistribution

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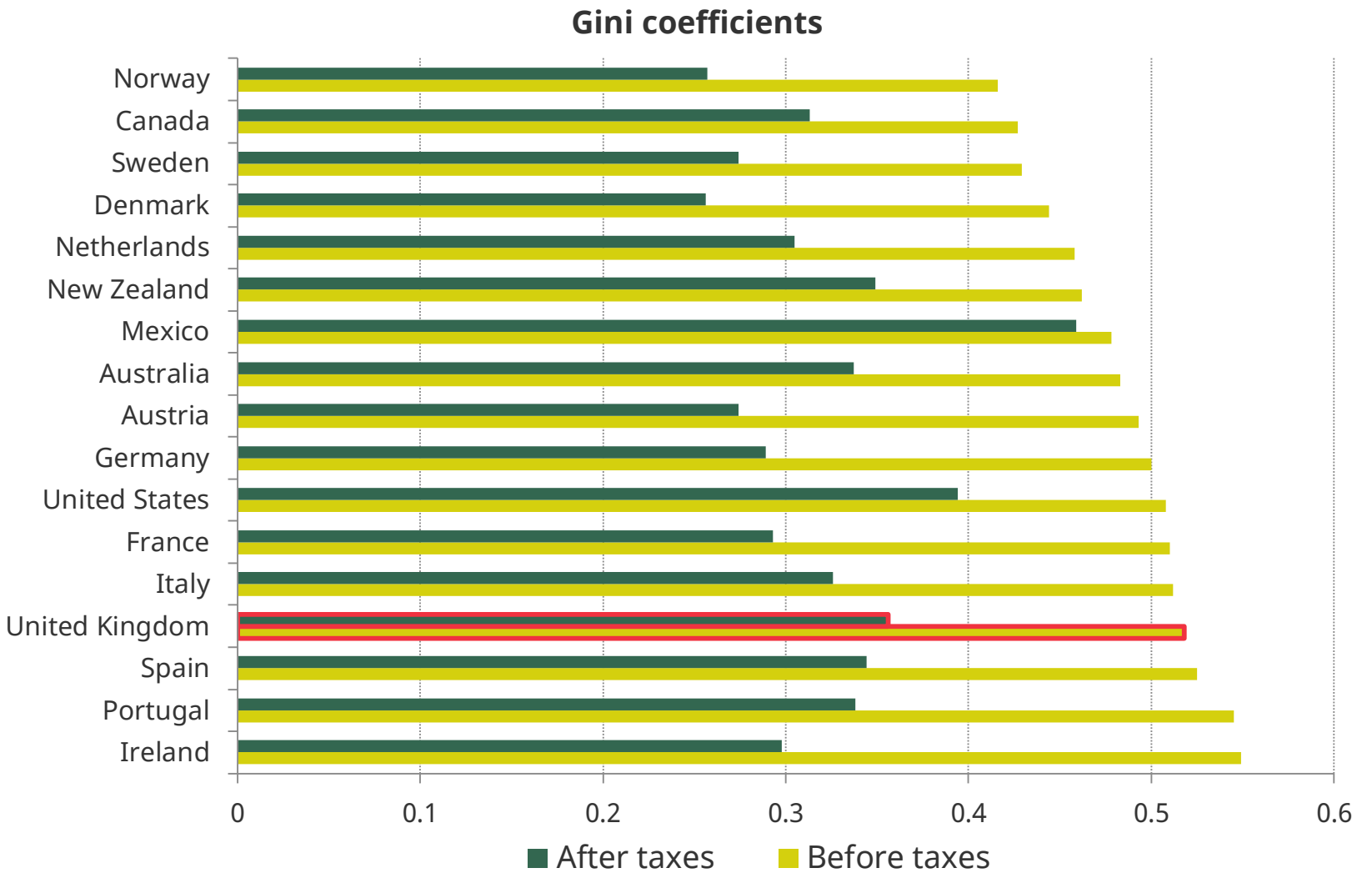

Motivation 3: Changing behaviour

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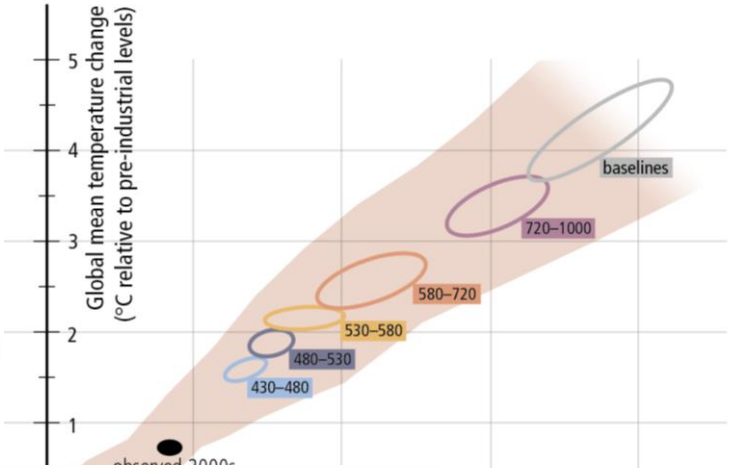

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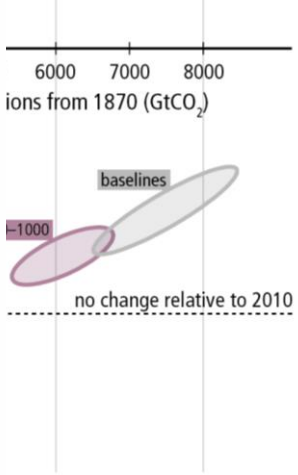

This lecture

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1. **Why taxes are important** ✓
2. **The economic approach to tax design**
3. **Neutral taxation: the design of the Value Added Tax**
4. **Departures from neutrality: the role of evidence**

The economic approach to tax design

What's the problem?

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Fundamental welfare theorems

1. Any competitive equilibrium leads to a Pareto efficient allocation of resources
2. Any efficient allocation can be attained as a competitive equilibrium given the right initial allocation

These only allow for "lump sum" taxes

- As these do not depend on individual choices, all mutually beneficial trades occur – efficiency
- In reality, lump sum taxes are not available

→ The problem of tax design is to support a "second best" system that trades off efficiency and equity considerations

Guiding principles for tax design

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On top of **minimising distortions**, low **administration costs**, **fairness** and **transparency** are also desirable for a given distributional outcome.

Mirrlees Review (2011) sets out principles for tax system design

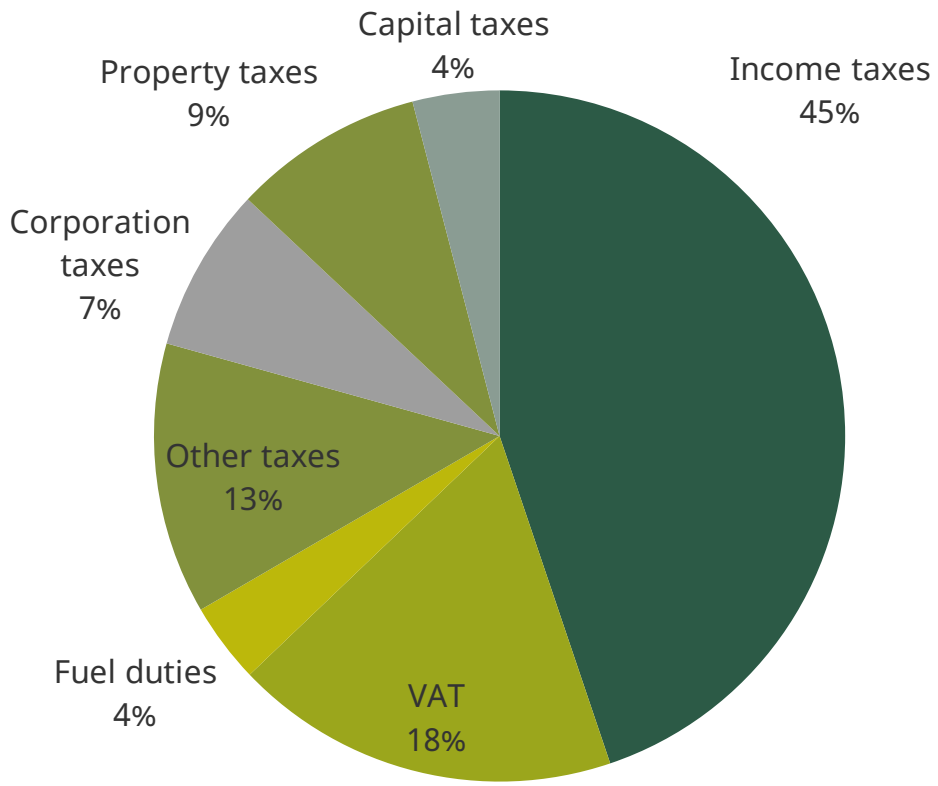
- Emphasis on system as whole: don't evaluate taxes in isolation!

1. Simplicity – easy to understand and comply with
2. Stability – minimising the frequency of policy changes
3. **Neutrality** – treating similar activities in similar ways

Why neutrality?

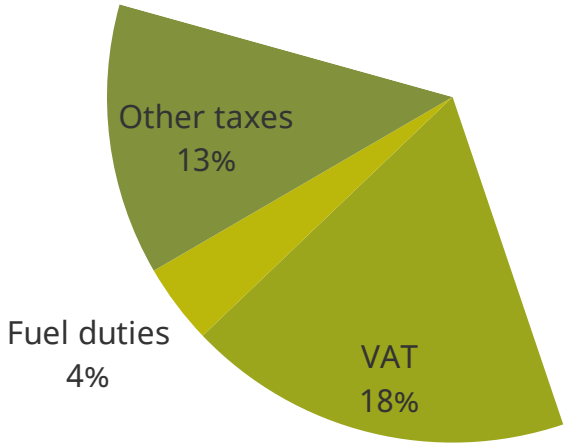
- Fewer distortions in general, and also promotes fairness and simplicity

UK tax revenue 2019-20



Source: OBR (2019)

UK tax revenue 2019-20

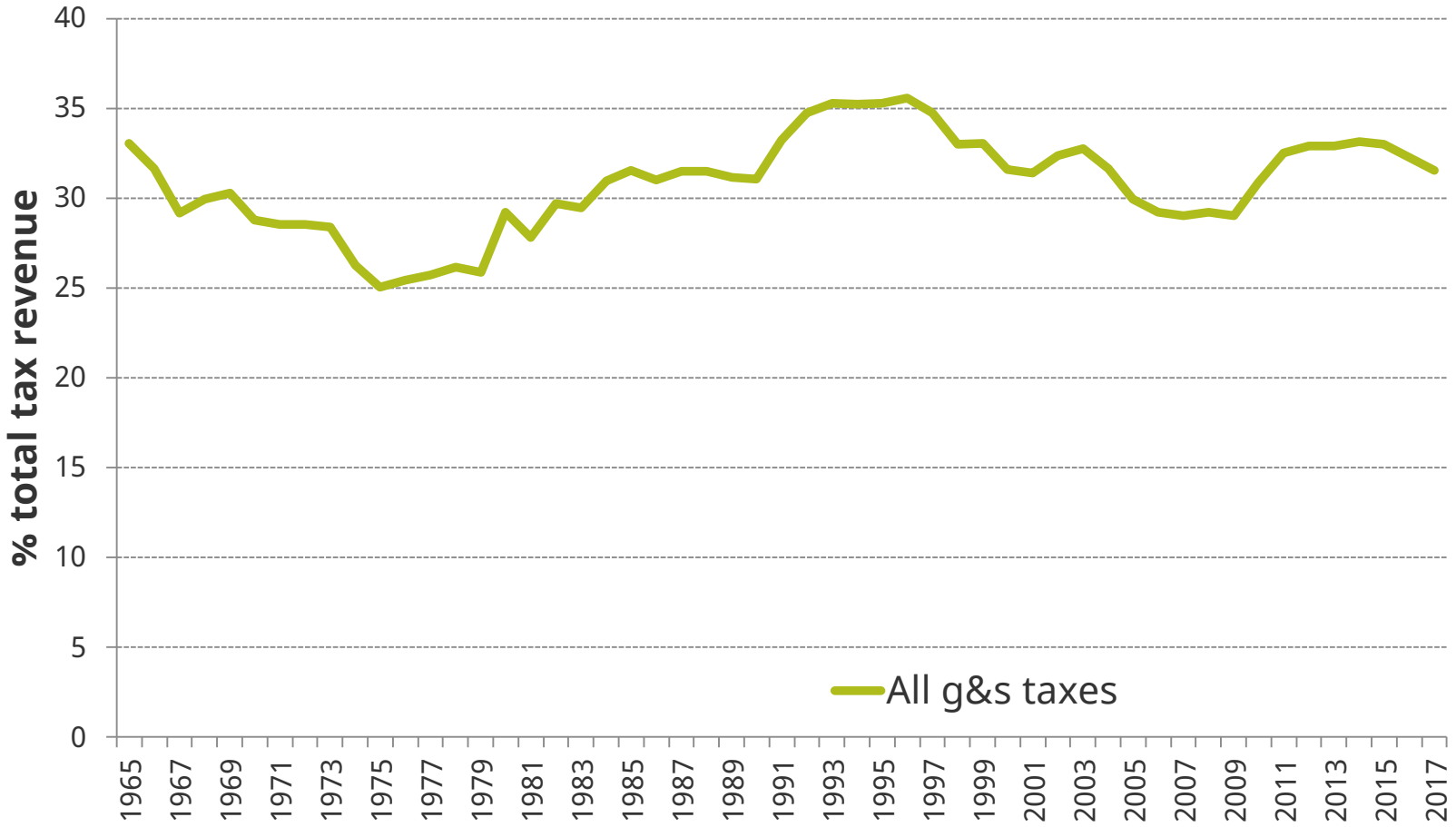


- Indirect taxes are levied on the sale of a good or service
- VAT will raise revenue of **£137 billion**, or over **£4700** per household
- Enough to cover all public health spending

Source: OBR (2019)

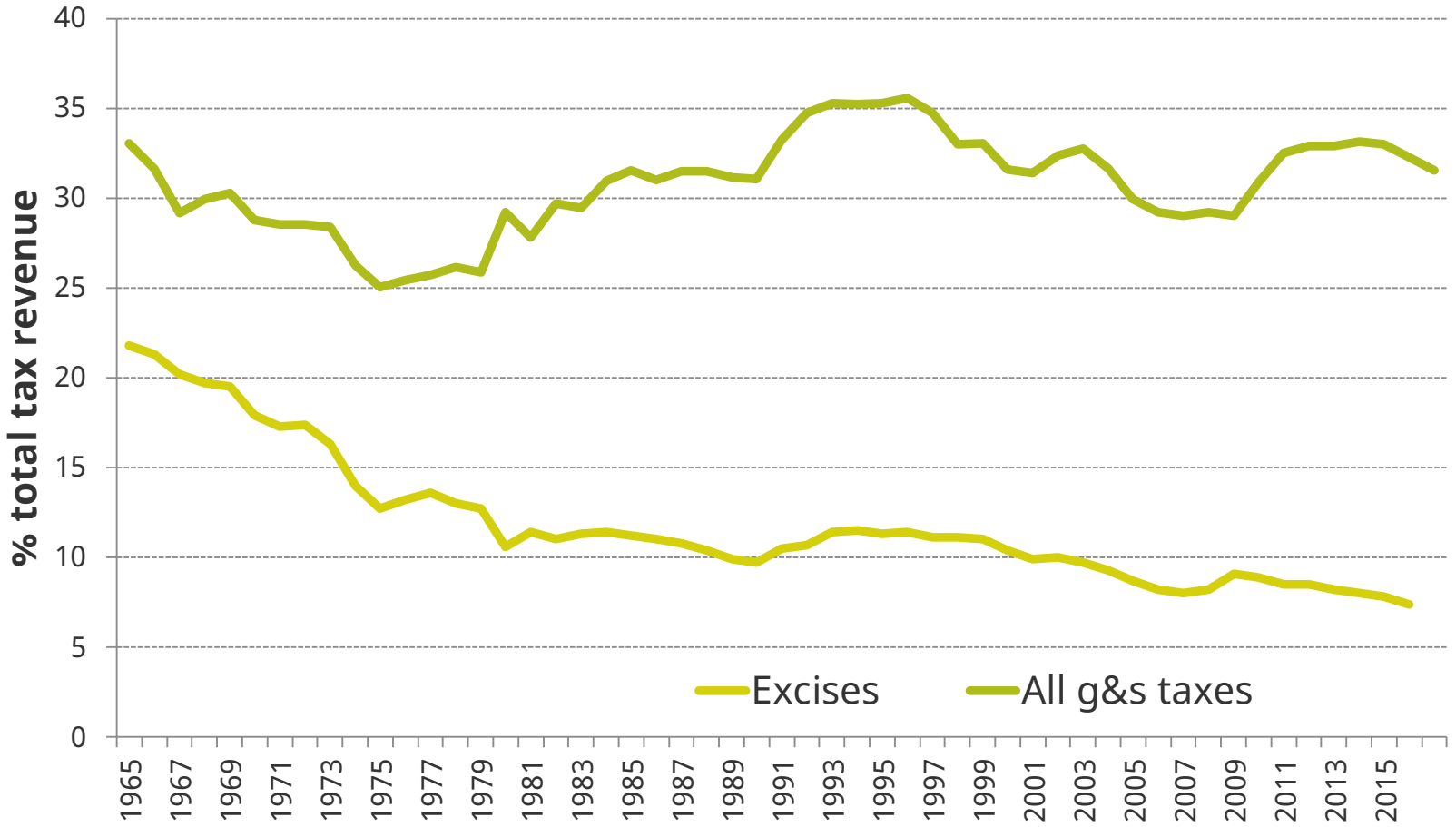
Neutral taxation: the design of the Value Added Tax

UK indirect tax revenues



Source: OECD Revenue Statistics

UK indirect tax revenues



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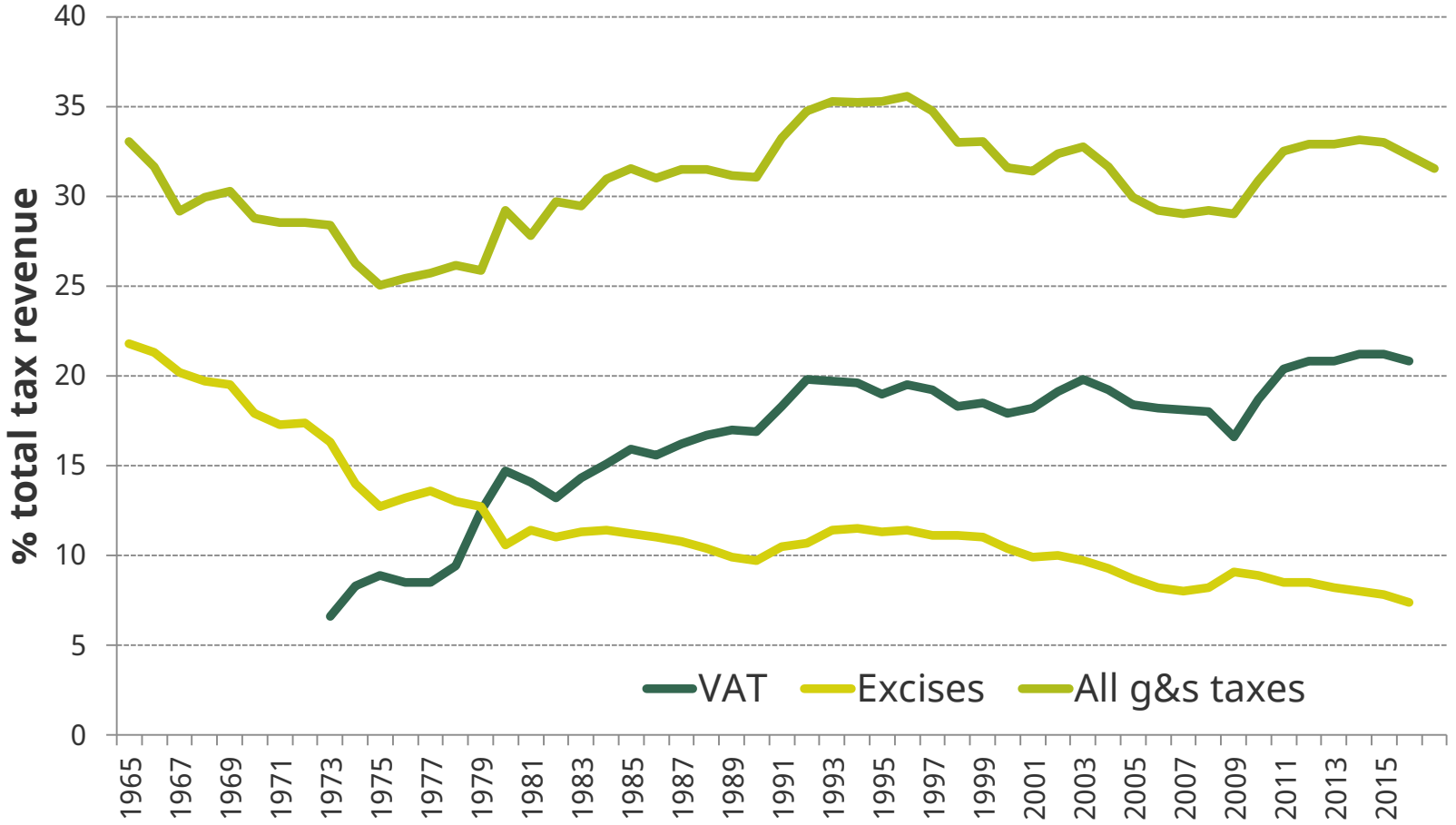
UK indirect tax revenues



Source: OECD Revenue Statistics

The spread of VAT

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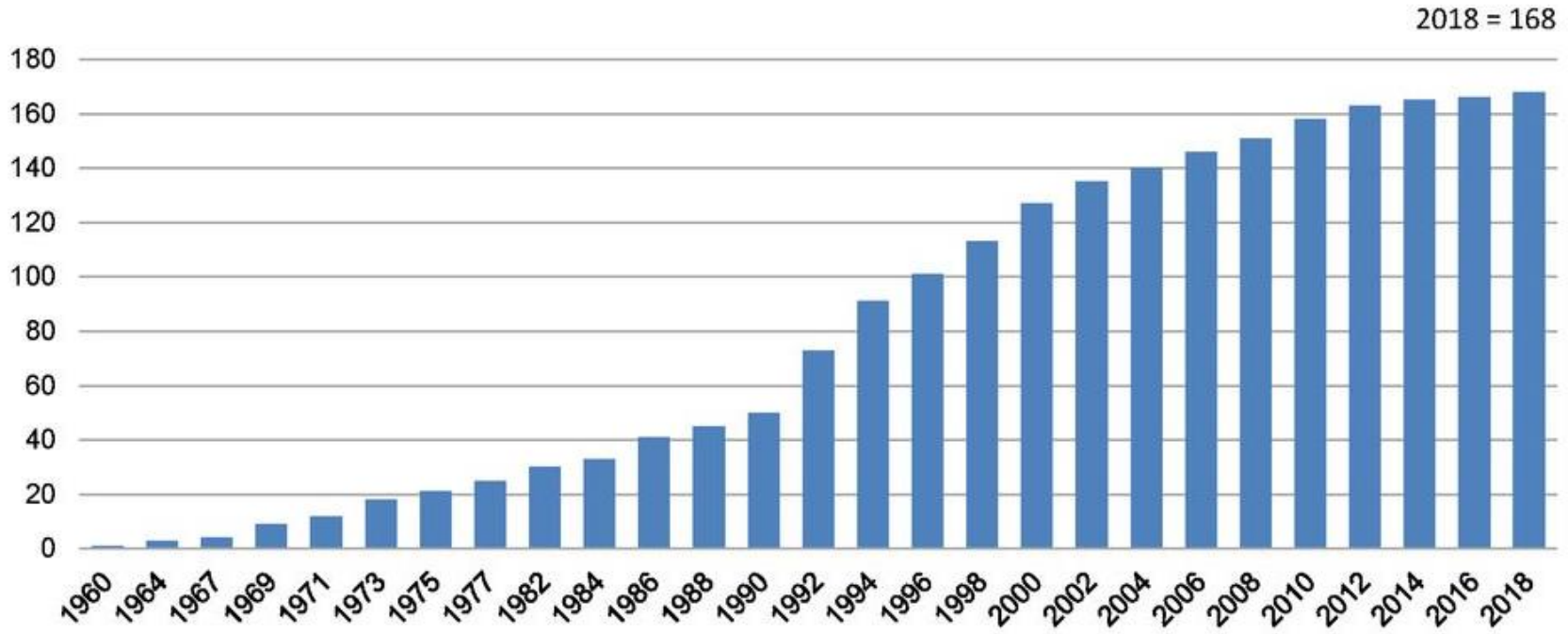
Countries with a VAT system (OECD, 2018)



Why is VAT so popular?

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Key feature: it is designed to avoid the taxation of intermediate inputs

Theoretical basis formalised in Diamond and Mirrlees (1971): Production Efficiency Theorem

- Taxing intermediate goods distorts relative input prices for producers – this reduces total output by reducing production efficiency
- For given revenue requirement, shifting taxation to consumption allows an increase in output for the same final prices – a Pareto improvement
- The result is still second-best, but unnecessary *additional* distortions avoided

Production Efficiency Theorem

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This theorem is closely linked to the principle of Neutrality

- Taxes on inputs would not be **neutral** about the supply chain
- They change input prices and incentivise producers to self-supply

A benchmark feature of a good indirect tax system is **taxing consumption only** (absent externalities)

- VAT achieves this by allowing businesses to reclaim the up front tax they pay on inputs

N.B. VAT has additional benefits in terms of encouraging tax compliance and facilitating enforcement, but can also be complicated to administer and comply with

Departures from neutrality: the role of evidence

Not so neutral: VAT in the UK

Source: IFS Fiscal Facts

VAT Revenue Ratios around the world

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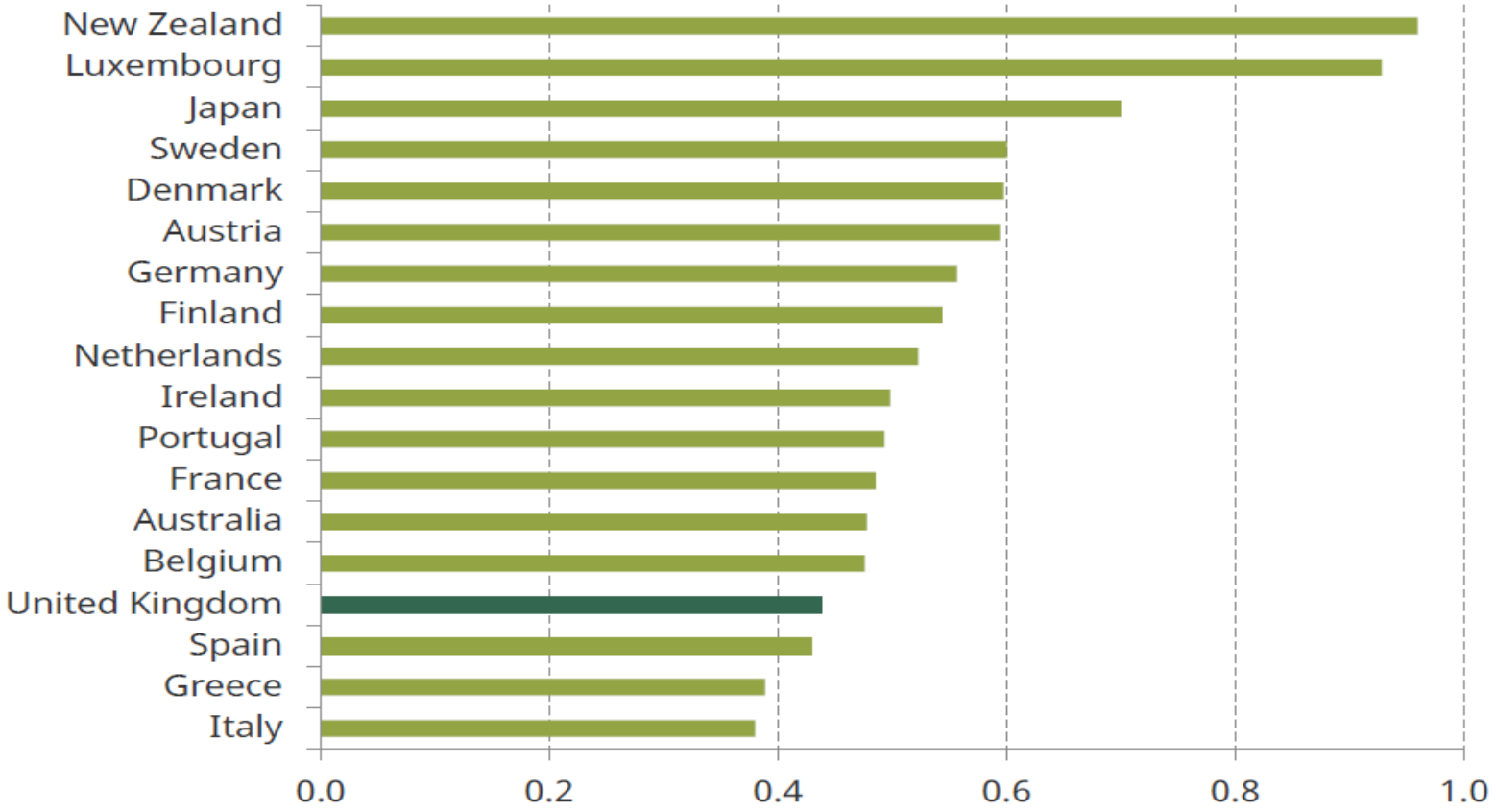
VAT revenue as a proportion of *potential* VAT revenue



Source: Conte, Miller and Pope (2019)

Non-neutrality is expensive. Is it effective?

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A primary rationale for reduced VAT rates is redistribution

- Lots of the goods and services subject to reduced rates are those considered basic goods – food, energy supply and so on
- The idea is that such basic goods take up a larger share of the expenditure of poorer households. But is this redistribution effective?
- VAT is only one tax in the *system as a whole*: not every tax has to achieve every objective
- Given the cost of preferential VAT rates, are there better ways to redistribute?

Distributional impact of uniform VAT in the UK

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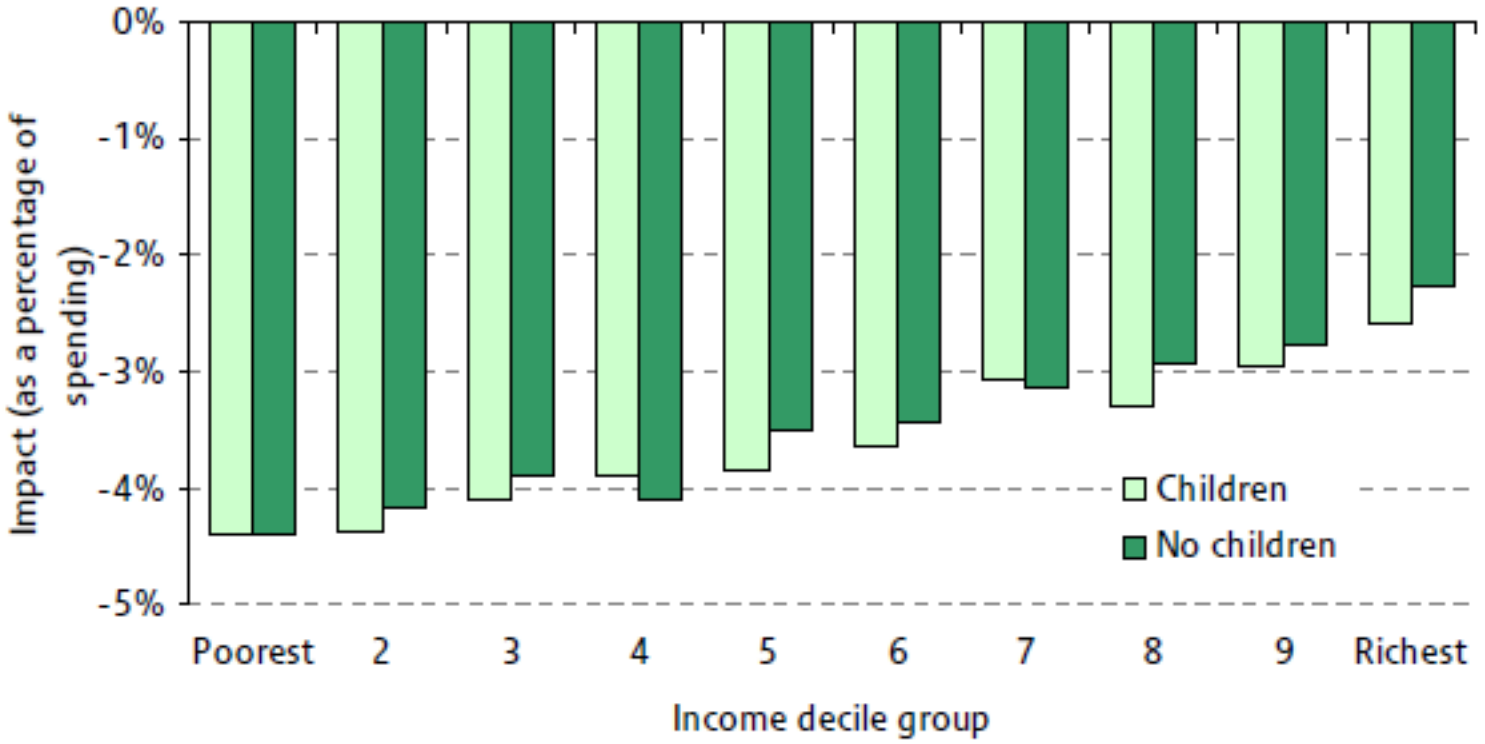

Source: Crossley et al (2008)

Higher income households spend more overall, so in cash terms they would lose out more and contribute more in taxation. Similar results across developed countries (e.g. OECD, 2014).

Distributional impact of uniform VAT in the UK *with compensation*

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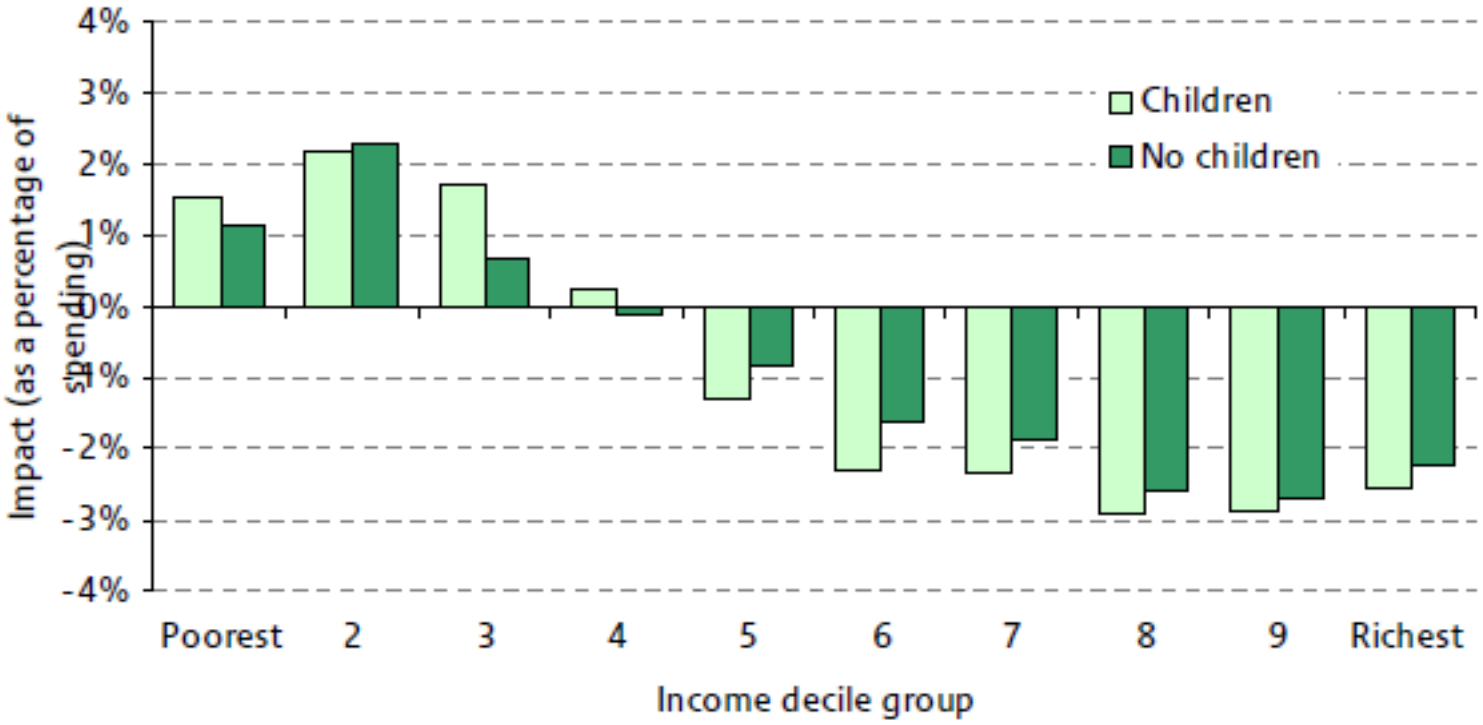
16.5% increase in income support, housing benefit and tax credits – this uses about two thirds of the overall revenue gain



Source: Crossley et al (2008)

Evidence from 6 LMICs: a broader VAT base funding a universal cash transfer

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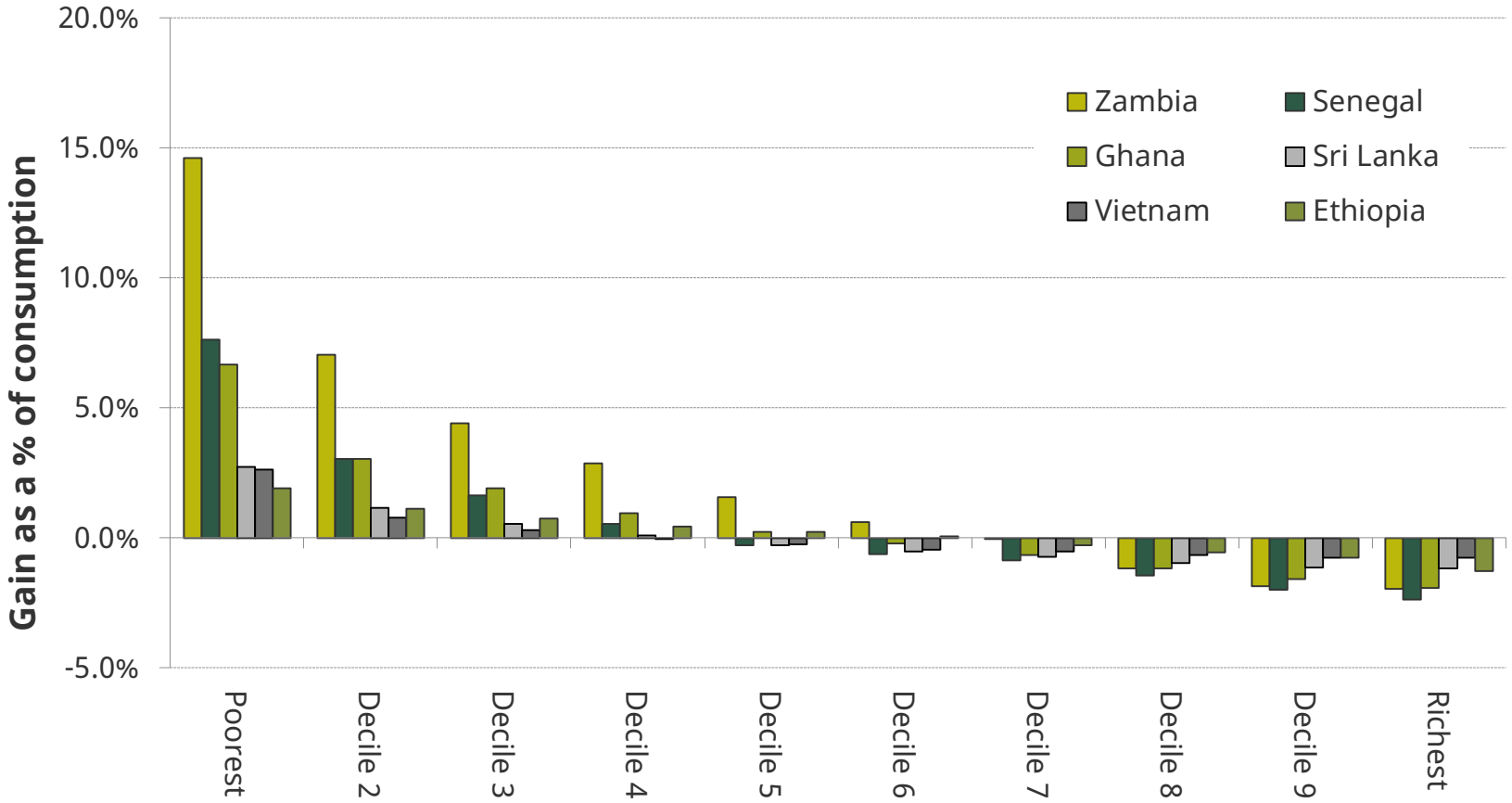

Note: Households ranked by consumption per equivalent household member
Source: Warwick et al (forthcoming)

Beyond redistribution

There may be other reasons to depart from the neutral baseline…

- A low rate on childcare to offset the work disincentives of income tax?
- A low rate on wheelchairs which are required by a very specific group?

But in general, specific cases are hard to identify, and poorly motivated tax policy means a more complicated and costly tax system, and leads to:

Wrapping up

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1. **Why taxes are important** ✓
   - Public services, poverty and inequality, and shaping behaviour
2. **The economic approach to tax design** ✓
   - Much disagreement remains in optimal tax literature, but rules of thumb can guide policy in powerful ways
3. **Neutral taxation: the design of the Value Added Tax** ✓
   - VAT as a prime example of how economic thinking has shaped policy
4. **Departures from neutrality: the role of evidence** ✓
   - Research is crucial for informing policy, and economists have an important role in highlighting and communicating findings

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