

The social trilemma in practice

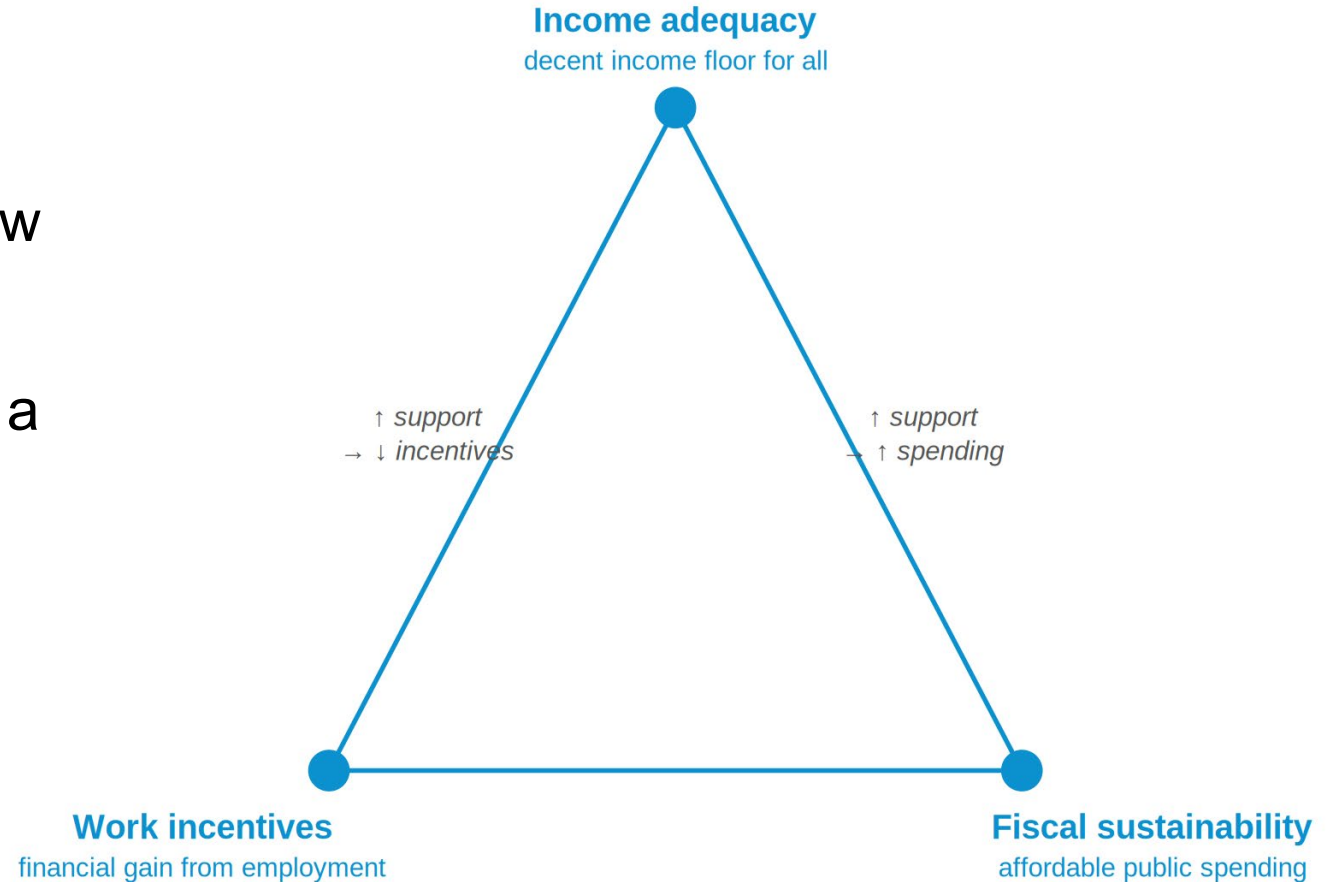
Fiscal costs of balancing poverty reduction and work
incentives in EU-27

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The social trilemma

Three aims at once unreachable

1. **Income adequacy** — decent floor below the poverty line
2. **Work incentives** — financial gain from a job stays positive
3. **Fiscal sustainability** — affordable as a share of GDP



(Cantillon, Goedemé & Hills, 2019)

Research question

*What public spending achieves **zero poverty** — while keeping work incentives **no worse than today**?*

Framed as a constrained policy question

“no worse than today” = participation tax rates \leq baseline

Achievable inside the existing EU policy framework?



EU policy

2022 Council Recommendation on adequate minimum income

→ income adequacy for everyone

Work incentives to keep in mind:

→ income disregard

→ in-work benefits

→ tax credits

→ minimum wages (a Directive)



What we do

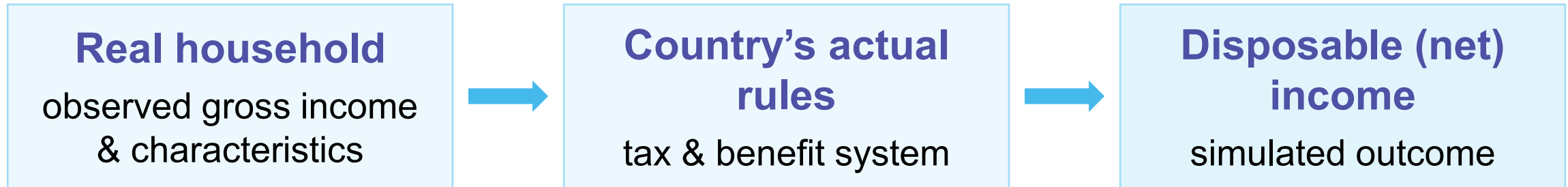
- 0 Baseline:** today's poverty + work incentives, country by country
- 1 Top-up reform:** raise minimum income to the line → poverty eliminated by construction; costs → fiscal cost + work incentive deterioration
- 2 Minimum wages:** is Directive mandate enough to offset disincentives? No
- 3 Income disregard:** work incentives increase for the poor, but not for everyone
- 4 In-work benefits:** positive linear effects for low earners

All 27 member states · policy year 2023



Workhorse model: EUROMOD

EUROMOD — the EU tax–benefit microsimulation model



Change a rule, or one person's job status → re-run → new disposable income
→ simulate policies/counterfactuals that don't exist yet, on real populations

The data

EU-SILC

EU Statistics on Income & Living
Conditions

representative income / household
micro-data

all 27 member states · income year
2023

HHoT

Hypothetical Household Tool

stylised households

transparent illustration of the mechanism

Population-representative (EU-SILC) · clean stylised cases (HHoT) — complementary



Measuring poverty: AROP

AROP — At Risk Of Poverty (the EU standard)

Relative line = 60% of national median equivalised disposable income

Equivalised — adjusted for household size & composition

Robustness — also tested at 50% and 40%

modified OECD scale

1.0 first adult

0.5 each extra adult

0.3 each child <15



Measuring incentives: the PTR

PTR (Participation Tax Rate)

Share of earnings lost to taxes + contributions and withdrawn benefits
The fiscal disincentives to work (extensive margin)

$$PTR = 1 - \frac{y^{employed} - y^{inactive}}{Earnings} = \frac{\Delta T - \Delta B}{Earnings}$$

PTR 60%

keep 40c per €

PTR 100%

no gain from working

PTR > 100%

inactivity trap



Step 1: Minimum incomes to eradicate poverty



Minimum income adequacy reform

The reform — add a top-up that closes every household's gap to the line
→ **poverty eliminated by construction (no household left below the line)**

Line	Definition	EU population reached
40%	40% of median equivalised income	4.47%
50%	50% of the median	9.07%
60%	60% of median (EU headline AROP)	15.42%



Minimum income policies

- **Minimum income guarantee:** top-up incomes to a certain floor. Means-tested and withdrawn 1-for-1 as own income rises
- Disincentives are small, but sizable for low-earning, low-skill individuals (Bargain & Doorley, 2011; AIReF)
- EU Council Recommendation (2023) on adequate minimum income –all EU countries have some form of MI
- Raising an MI top-up to close the poverty gap **mechanically raises PTRs** (Collado et al. 2017; Immervoll, Kleven, Kreiner & Saez 2007)
- Adequacy is lacking (Cantillon et al. 2017; Almeida et al, 2024), it stagnates (Marchal & Marx 2024; Bornukova et al., 2025)



MI top-ups increase PTR

Minimum wage €1,000

10% tax

MI top-up: €500 first adult, +€300 each extra · withdrawn 1-for-1

Single adult — floor €500		
	Not working	Working
Net own income	€0	€900
+ Top-up	+€500	+€0
= Disposable	€500	€900
gain €400 on €1,000 · PTR = 60%		

One-earner couple + 1 child — floor €1,100		
	Not working	Working
Net own income	€0	€900
+ Top-up	+€1,100	+€200
= Disposable	€1,100	€1,100
gain €0 on €1,000 · PTR = 100%		

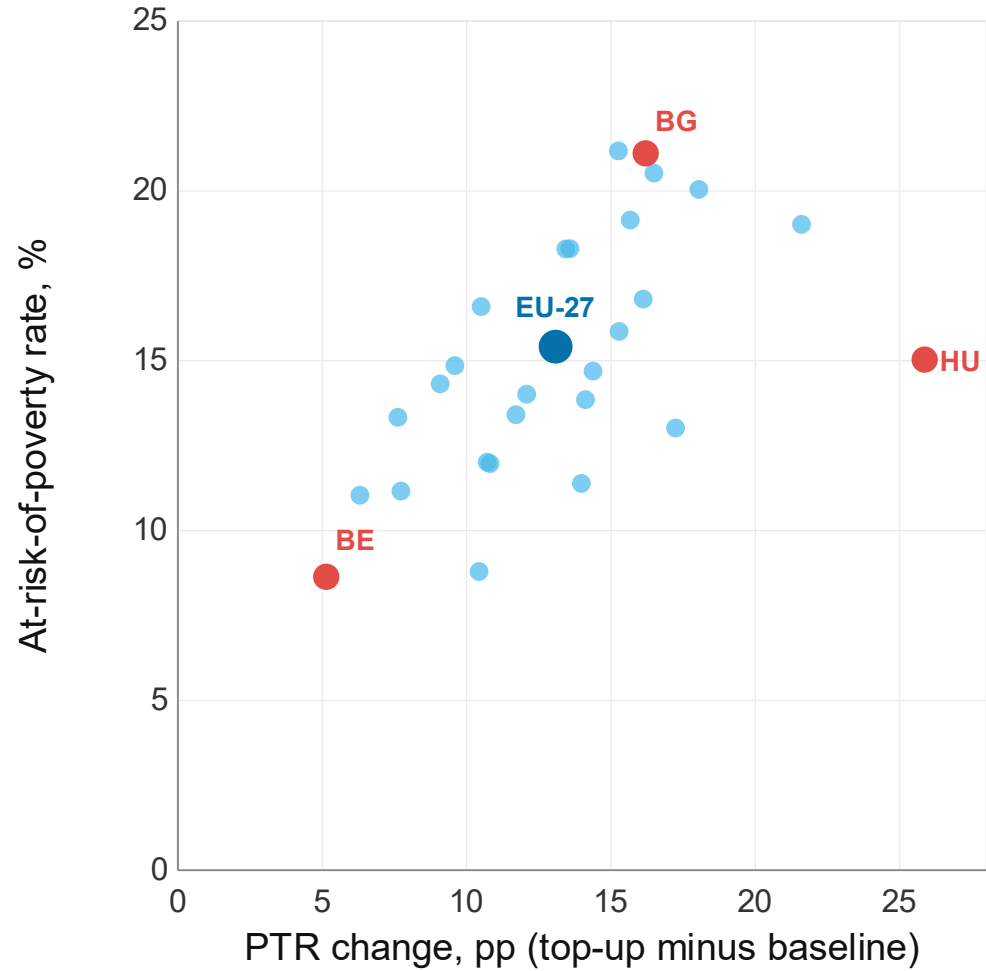


The trilemma in two charts

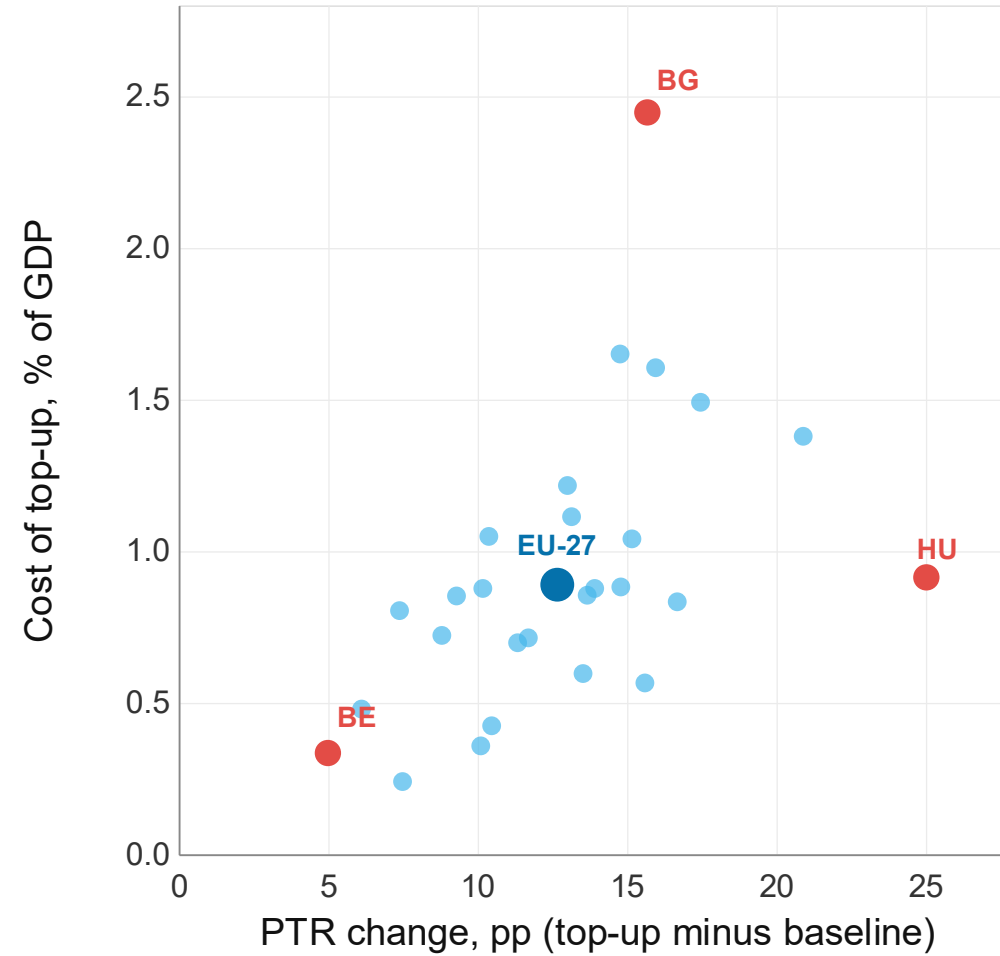
baseline → 60% top-up

shift right — PTR worsens

Panel A — Poverty reduction



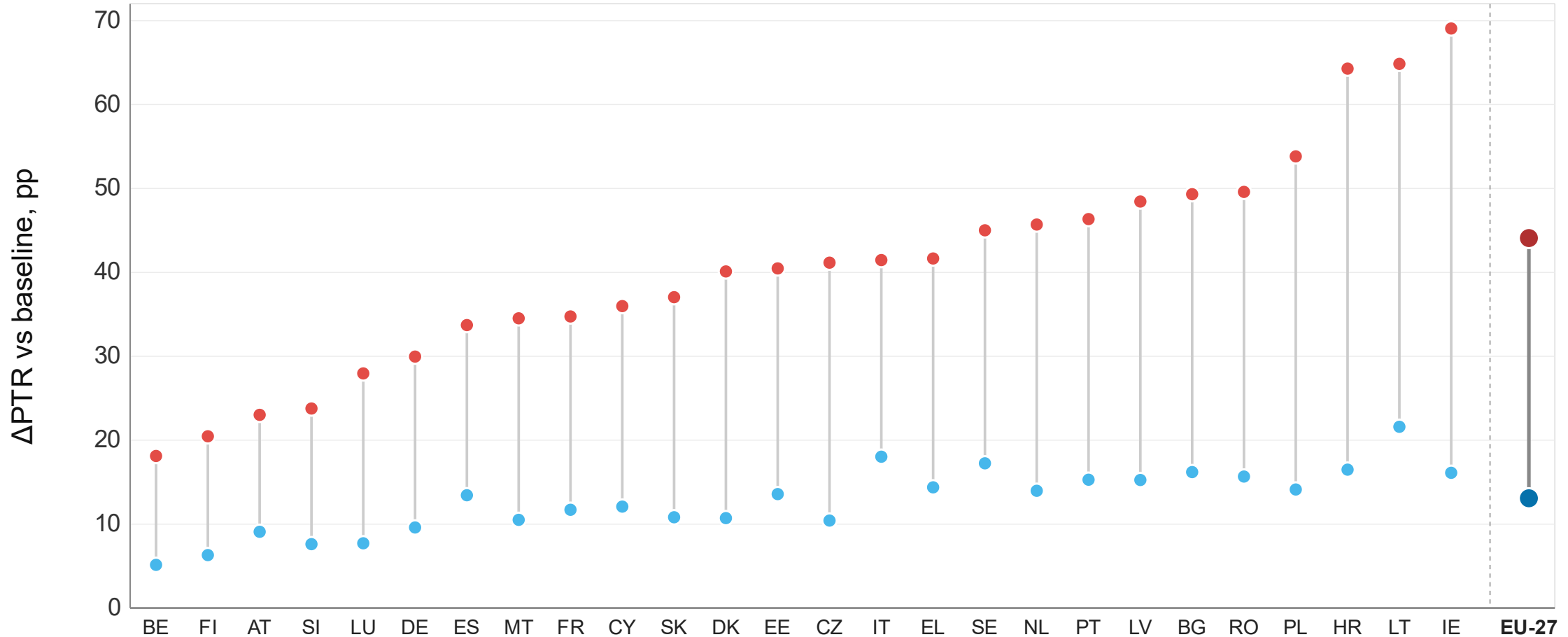
Panel B — Fiscal cost



● EU-27 countries ● Selected (BG, BE, HU) ● EU-27 average



The damage is concentrated at the bottom



● All households

● Poor households

● gap = concentration among poor

Countries sorted by Δ PTR(poor). † Excluded (PTR_{poor} > 100): HU.



Step 2: Minimum wages

Will they help with incentives?

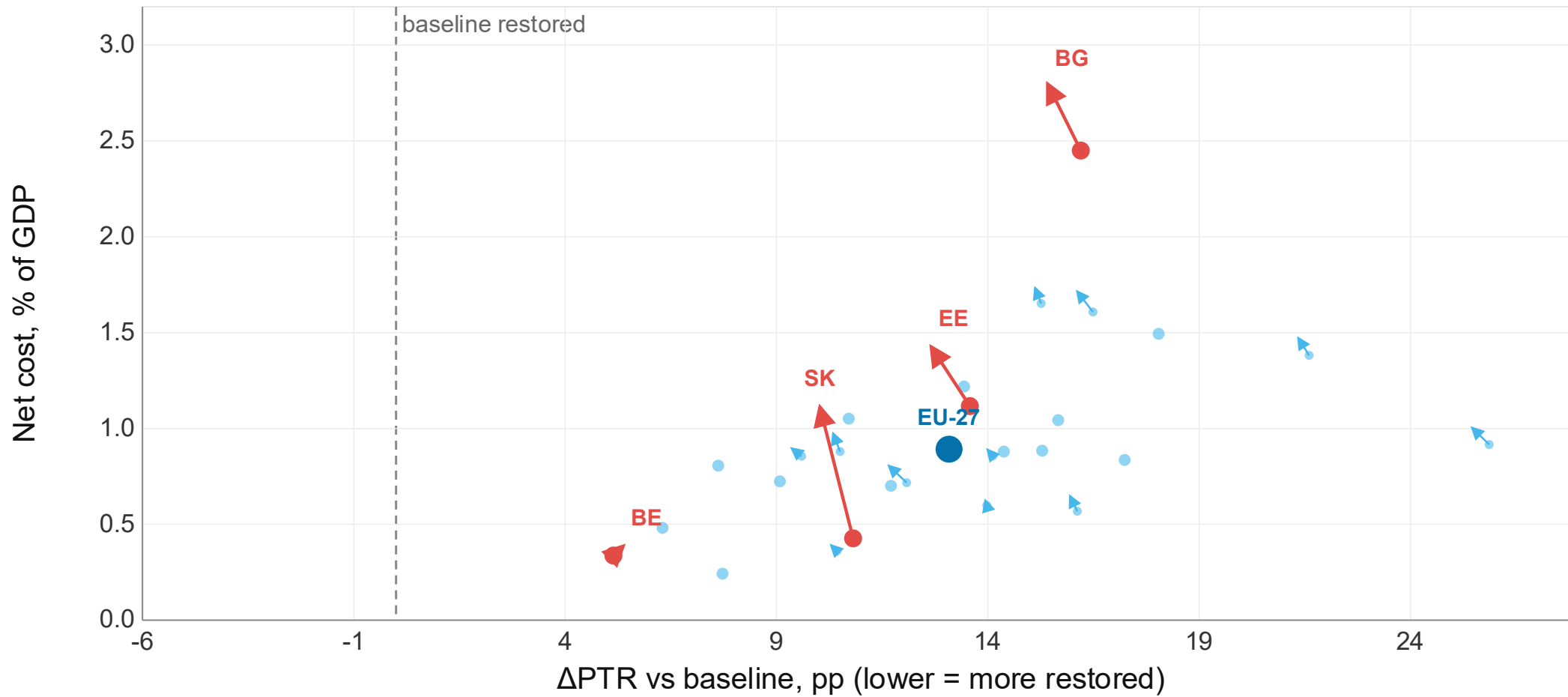


Minimum wages: policy and evidence

- EU policy: Directive (2022) recommends raising Min Wages to 60% of median wage
 - All but 5 EU states have statutory minimum wages
 - Those 5 that do not have (AT, DK, FI, IT, SE) – have sector-specific union agreements
 - Some countries are above the 60% of median threshold already (ES, FR, PT, EL, SI)
- Recent consensus on labour market effects: wage-distribution compression at the bottom; small, often insignificant employment effects. Median own-wage elasticity ≈ -0.13 (Dube & Lindner 2024). Near-zero bunching evidence (Cengiz et al. 2019); monopsony rationale (Manning 2021). Small but real disemployment, concentrated on youth/low-skilled (Neumark & Shirley 2022).



Can a higher minimum wage fix it? 60% of median



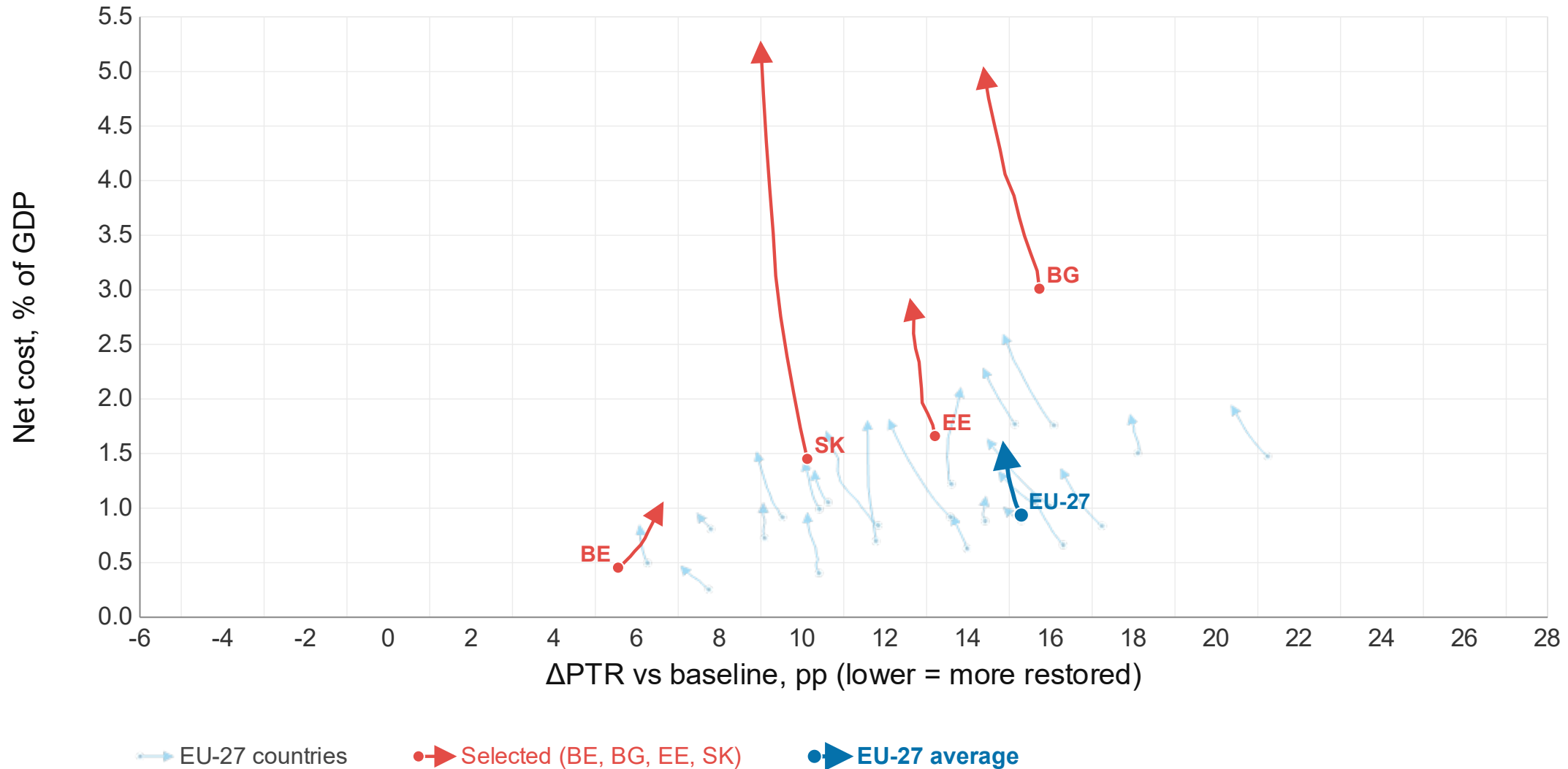
●→ EU-27 countries

●→ Selected (EE, BG, SK, BE)

● EU-27 average



Push the wage beyond the Directive? To 80%



Why a higher minimum wage might increase PTRs?

Benefit withdrawal

large rise lifts net earnings above the means-test threshold → euros kept → PTR increases (a cliff edge)

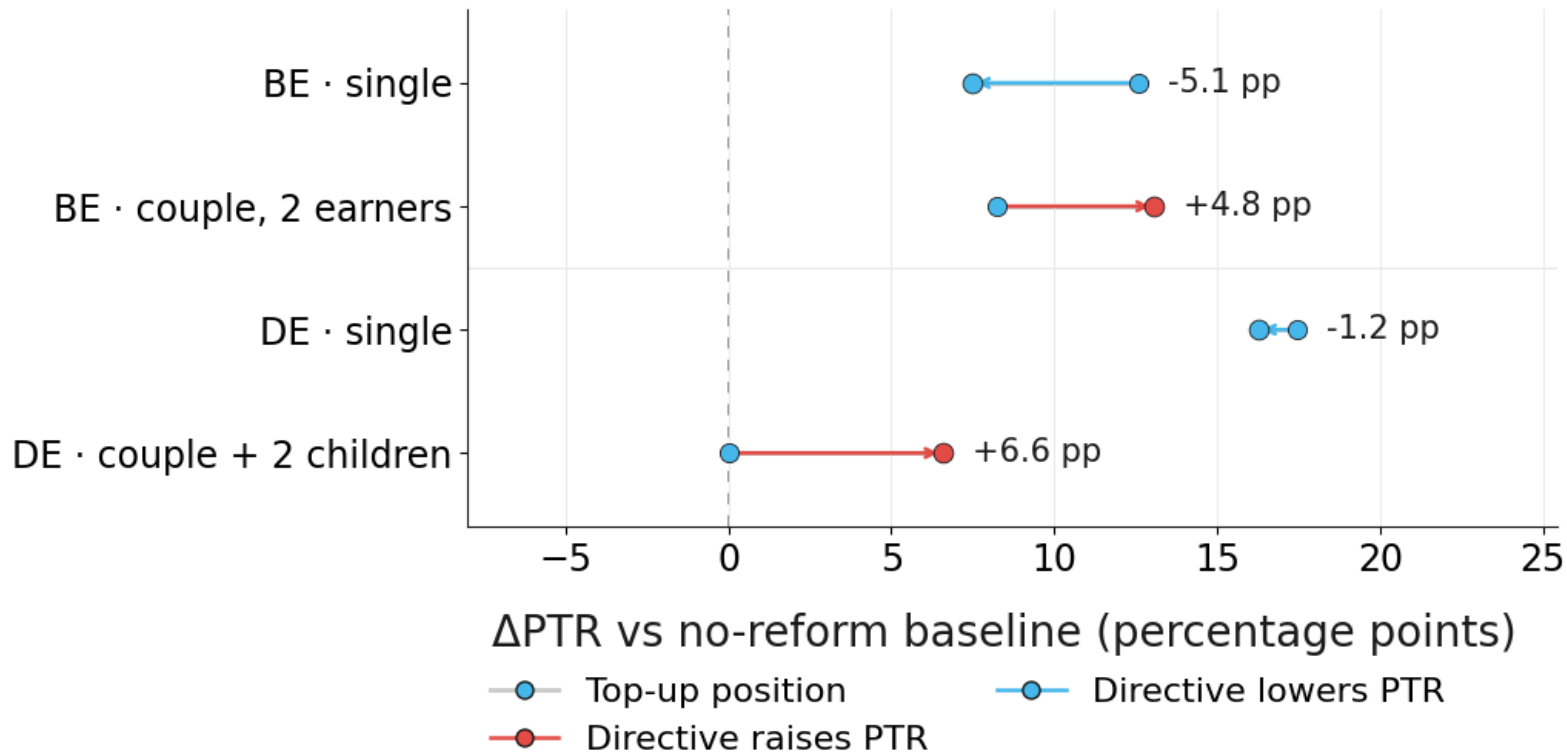
Common for child benefits

Tax brackets

higher gross can cross into a higher band → a higher slice taxed away → PTR rises slightly

MinWage increasing PTRs: HHoT illustration

MW directive: selected PTR movements



- **BE:** tax marriage quotient lost with higher MinWage
- **DE:** means-tested child benefit lost with higher MinWage



Step 3: Income disregard

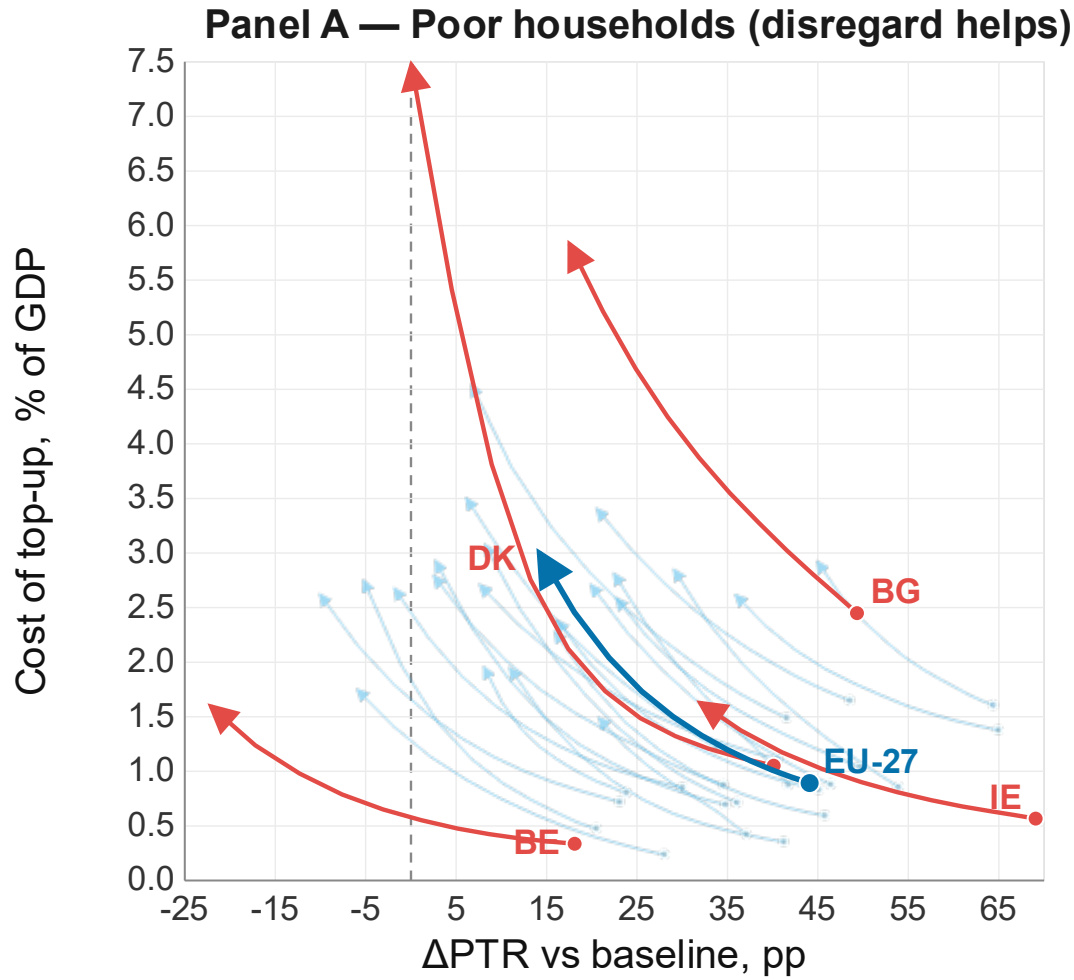


Income disregard: policy and evidence

- **Income (earnings) disregard: the means test ignores a fraction r of net earnings**
→ **working households keep more top-up**
- Widespread in North, West and Southern Europe, typically in 20-30% range
- RCT evidence from NL: raised part-time employment at budget-neutral cost (Verlaet, Rosenkranz, Groot & Sanders 2023; CPB 2020)
- Collado et al. (2017): income disregard reverses negative PTR effects from MI



Income disregard (0-50%) works for the poor



- Collado et al. (2017) show that 50% income disregard is enough to eliminate disincentives
 - In UK, BE, DK
 - For the poor
- Our results align

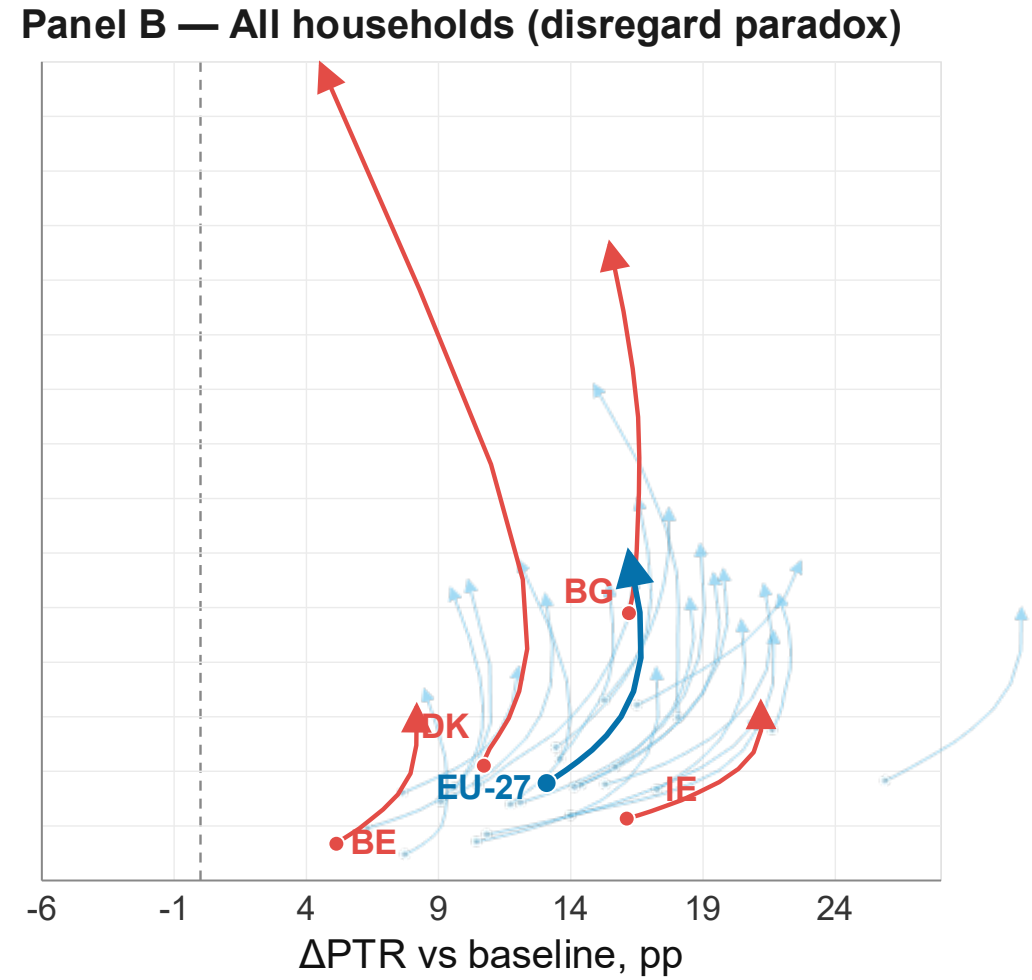
→ EU-27 countries

•→ Selected (BG, BE, IE)

•→ EU-27 average



Income disregard works for the poor, but not for all



Why the split? The disregard widens eligibility

Assessed income = income – r × earnings → qualify when income < line + r × earnings

Earners above the old cutoff pulled into assistance → get in the withdrawal zone → PTRs rise

Couple · one earner MW €1,000 · one inactive · 10% tax · couple threshold €800		
	No disregard	50% disregard
HH net income (1 earner)	€900	€900
Assessed for means test	€900	€450
Eligible? (line €800)	No	Yes
Top-up if partner inactive	€0	€350
Disposable: inactive → employed	900 → 1,800	1,250 → 1,800
Gain from partner working	€900	€550
PTR of the entering partner	10%	45%

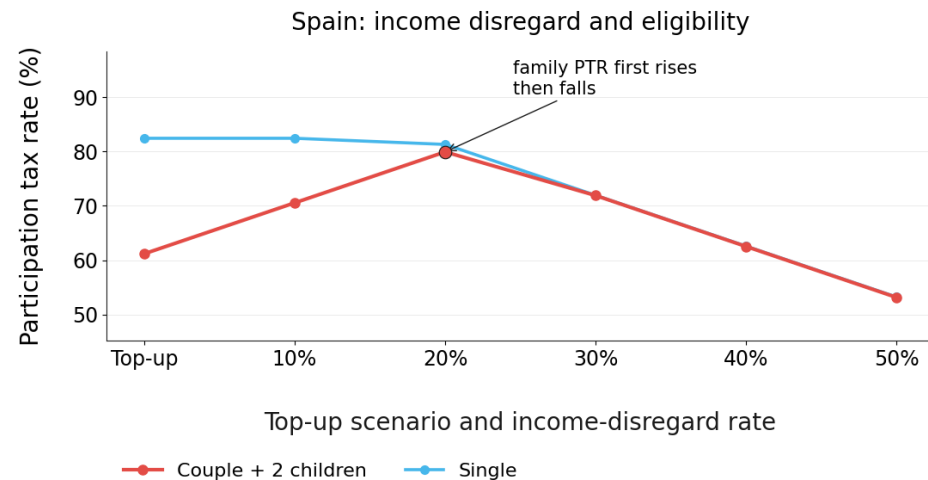
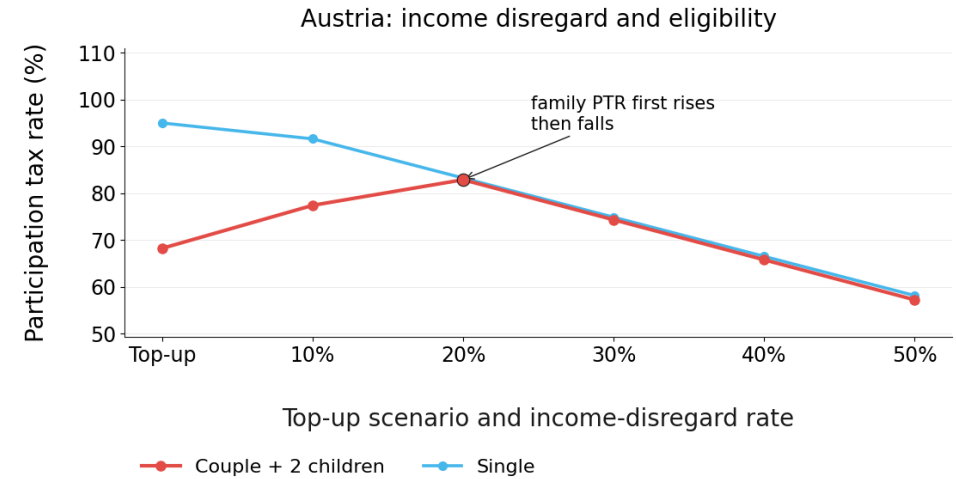
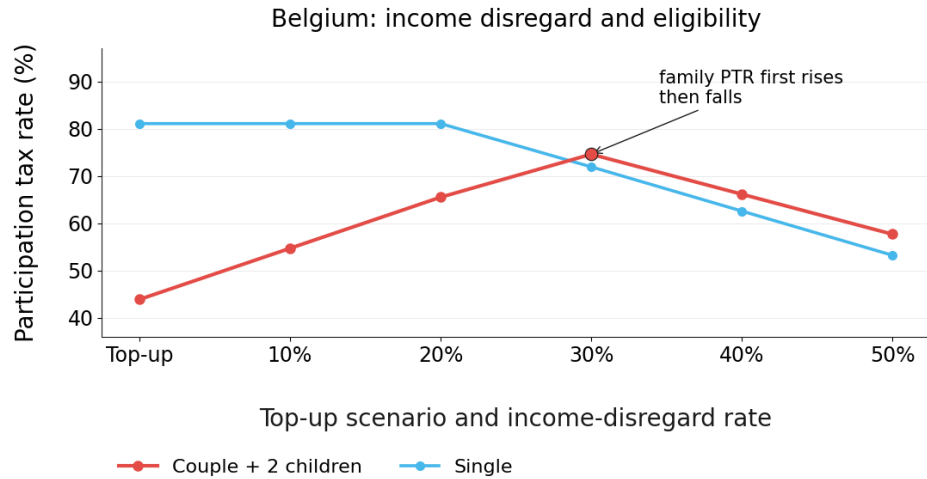
10% → 45%

10 pp tax
+ 35 pp withdrawal

a never-on-assistance couple pulled into the scheme by disregard



Income disregard increasing PTRs: HHoT examples



Step 4: In-work Benefit

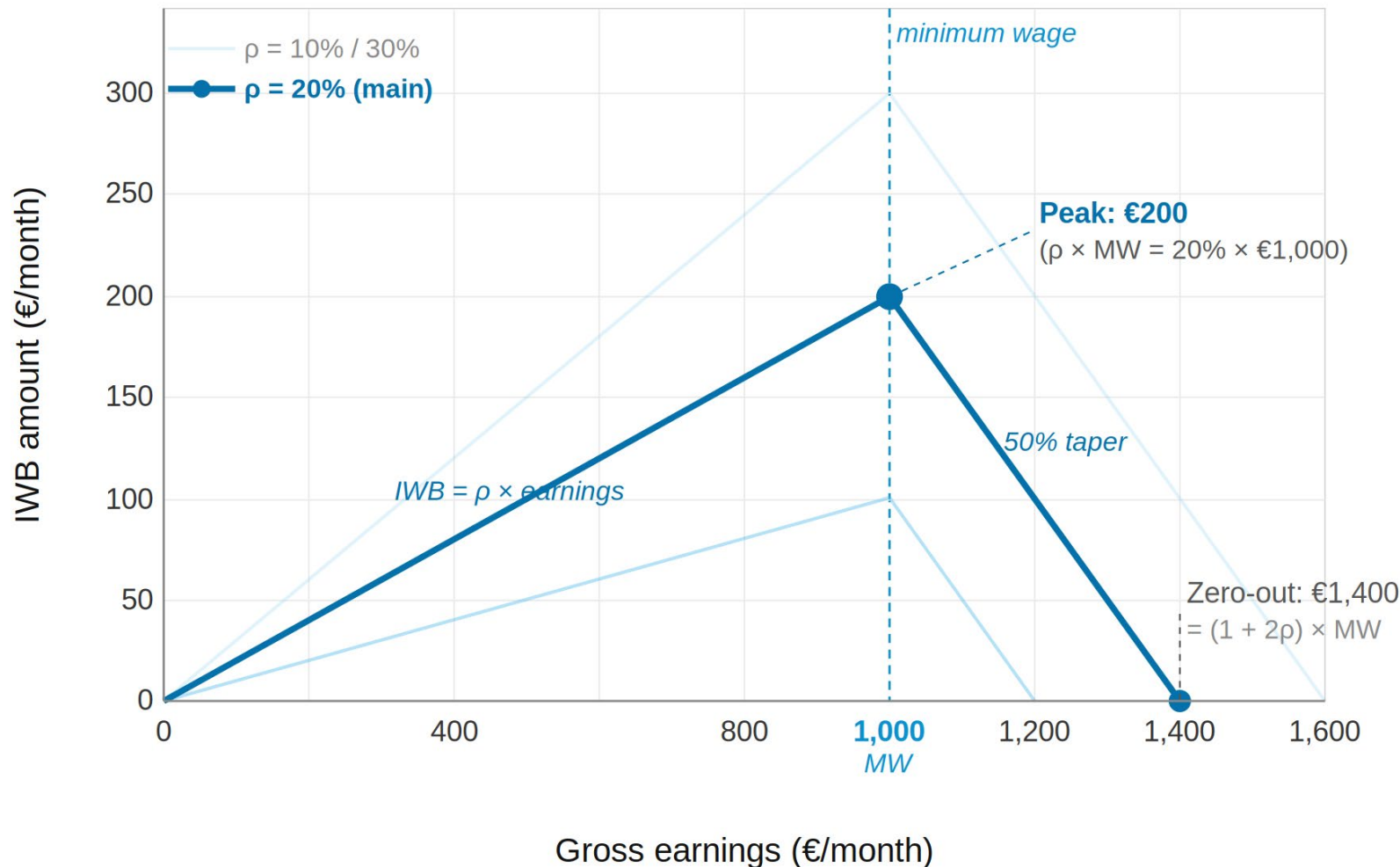


In-work benefit: policy and evidence

- Cash transfers or tax reliefs paid conditional on employment, intended to top up the net earnings of low-paid workers
 - IE, FR, BE, NL, DE, FI, SE have them in form of benefits, either household or individual level
 - US Earned Income Tax Credit, similar scheme in UK
- Participation gains on the extensive margin, mainly single mothers for US EITC (Eissa & Liebman (1996); Eissa & Hoynes (2004, 2006); robustness later contested Kleven (2024)).
- European schemes show positive but mostly small employment effects: NL (Bosch & van der Klaauw 2012; Bettendorf et al. 2014, 2015); FR (Stancanelli 2008; CNE 2011), DE (Steiner & Wrohlich 2005; Caliendo et al. 2016); BE (Orsini 2007; Dagsvik et al. 2011).
- Employer incidence: a substantial share is captured via lower pre-tax wages → case for pairing IWBs with a binding minimum wage. Rothstein (2010); Leigh (2010); Azmat (2019); Lee & Saez (2012).



In-work benefit outside the tax–benefit system



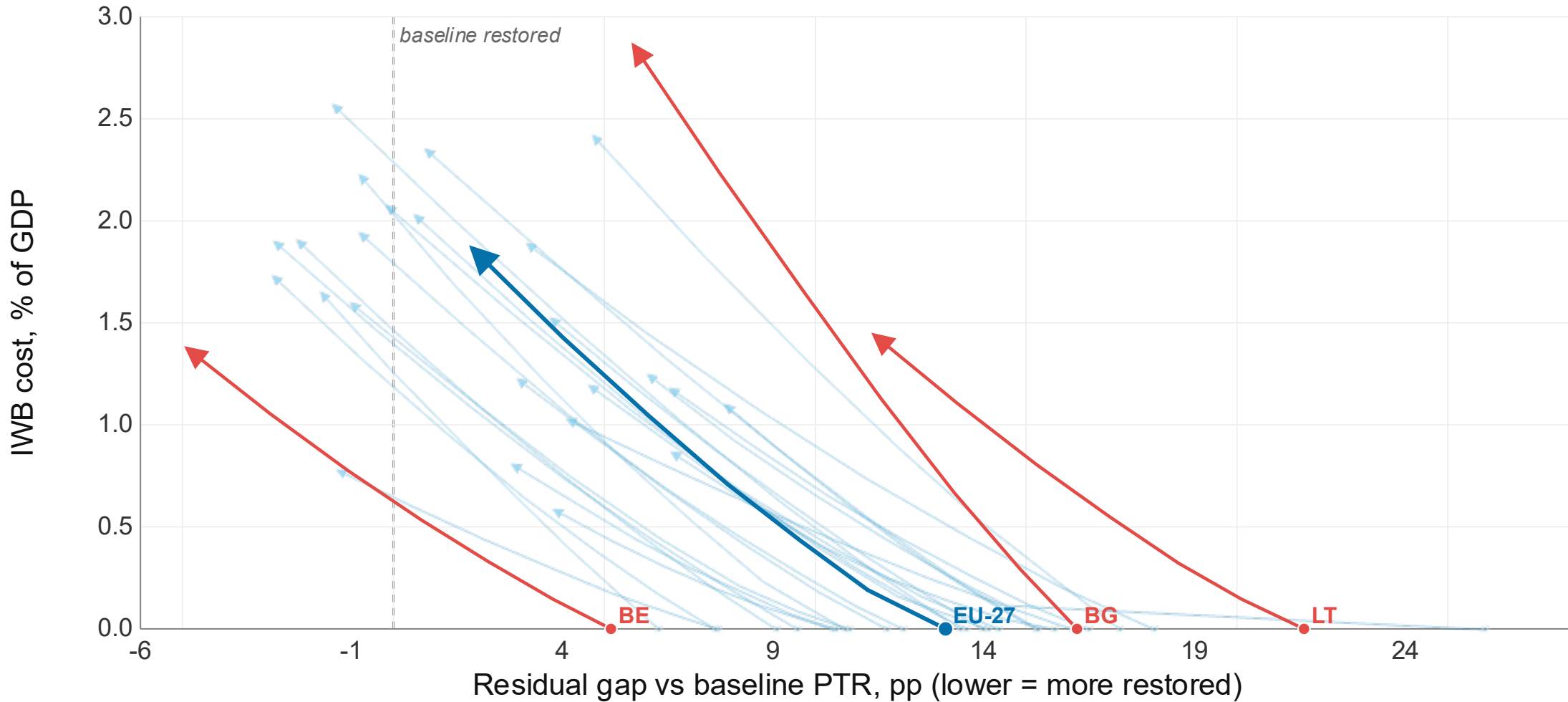
IWB rises with earnings,
phases out after Min
Wage (50% taper)

non-taxable · not means-
tested · outside EUROMOD

Following Allen et al., 2025



In-work benefit — results (0% - 30%)



EU-27 countries Selected (BE, BG, LT) EU-27 average



Conclusion & next steps

So far

- Top-up MI ends poverty at modest cost, creates disincentives at the bottom
- Directive minimum wage not enough, sometimes worse
- Income disregard helps the poor, but raises the population-average PTR
- In-work benefit the only monotone, no-backfire instrument

Next ?

- In-work benefit does not cover all the poor
 - Distributional consequences for PTRs?
- Part-time work incentives

