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DIPARTIMENTO DI ARCHITETTURA
E STUDI URBANI

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Do social benefits contribute to labour shortages?

Estimating and decomposing marginal effective tax rates in Greece

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Structure

- Introduction
- Methodology and data
- Results
- Policy implications

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Labour shortages

- Labour shortages in Greece are often attributed to
  - skill mismatches
  - low pay
- or - when pay is not that low - to a combination of
  - poor working conditions and
  - precarious seasonal employment
- in industries such as tourism or agriculture

Social benefits and labour supply

- Nevertheless, anecdotal evidence and press reports suggest that taxes and social benefits may also play a role
- tilting the choice between
  - formal / dependent and
  - informal / self-employment
- towards the latter

Social benefits and informal work

> **Εργαζόμενοι ζητούν μέρος της αμοιβής στο… χέρι για να μην ανέβουν κλίμακα και χάσουν κοινωνικά επιδόματα.**

2. Η εξάρτηση των εργαζομένων από τα **κοινωνικά επιδόματα**. Είναι συνήθης πρακτική ο εργαζόμενος να εμφανίζεται με χαμηλότερο μισθό στα χαρτιά από ό,τι εισπράττει στην πραγματικότητα. Αυτό διευκολύνει τον εργοδότη που πληρώνει λιγότερες ασφαλιστικές εισφορές, βολεύει και τον εργαζόμενο ο οποίος, εκτός από το «μαύρο» κομμάτι του μισθού του, εισπράττει και τα κοινωνικά επιδόματα: επίδομα τέκνων, επίδομα στέγασης, επίδομα φοιτητικής στέγης, επίδομα θέρμανσης είναι μερικά μόνο από αυτά. Οσο η επιδοματική πολιτική της χώρας θα έχει ως μοναδικό κριτήριο το περιεχόμενο των φορολογικών δηλώσεων, τόσο θα συνεχίζεται η στρέβλωση.

Social safety net

- Until recently, income support for the poor and the unemployed in Greece was so limited that the poverty or unemployment traps afflicting other systems of social protection could not arise here

- In the 2010s the country's social safety net was strengthened

- A number of means-tested benefits were introduced:
  - child benefit (2013/2018)
  - guaranteed minimum income (2017)
  - housing benefit (2019)
  - childcare voucher (2022)

- The paper asks whether the strengthening of the social safety net has inadvertently weakened work incentives of benefit recipients

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Work incentives

- Exactly how social benefits affect the decisions of recipients as regards labour supply depends crucially on their interaction with
  - *other social benefits*
  - *taxes*
  - *social contributions*

- Benefit recipients face two decisions:
  - ✓ *whether to take up a job or not*
  - ✓ *how many hours to work once in employment*

PTRs and METRs

- Formally, the employment responses of benefit recipients manifest themselves along:
  - the extensive margin (i.e. whether to take up a job or not)
  - the intensive margin (i.e. how many hours to work)

- The implicit work disincentives can be gauged through
  - participation tax rates (PTRs)
  - marginal effective tax rates (METRs)

PTRs

- PTRs operate on the extensive margin: they show how much of the additional household income brought in when a previously non-employed family member takes up a job is lost because of taxation of earnings and reductions in benefits

- The PTR facing individual *i* in household *h* is:

$$PTR_i = 1 - \frac{Y_h^w - Y_h^b}{E_i^w}$$

- Where:
  - E_i^w = *gross earnings of individual i when in work*
  - Y_h^w = *household income when individual i is in work*
  - Y_h^b = *household income when individual i lives on benefits*

METRs

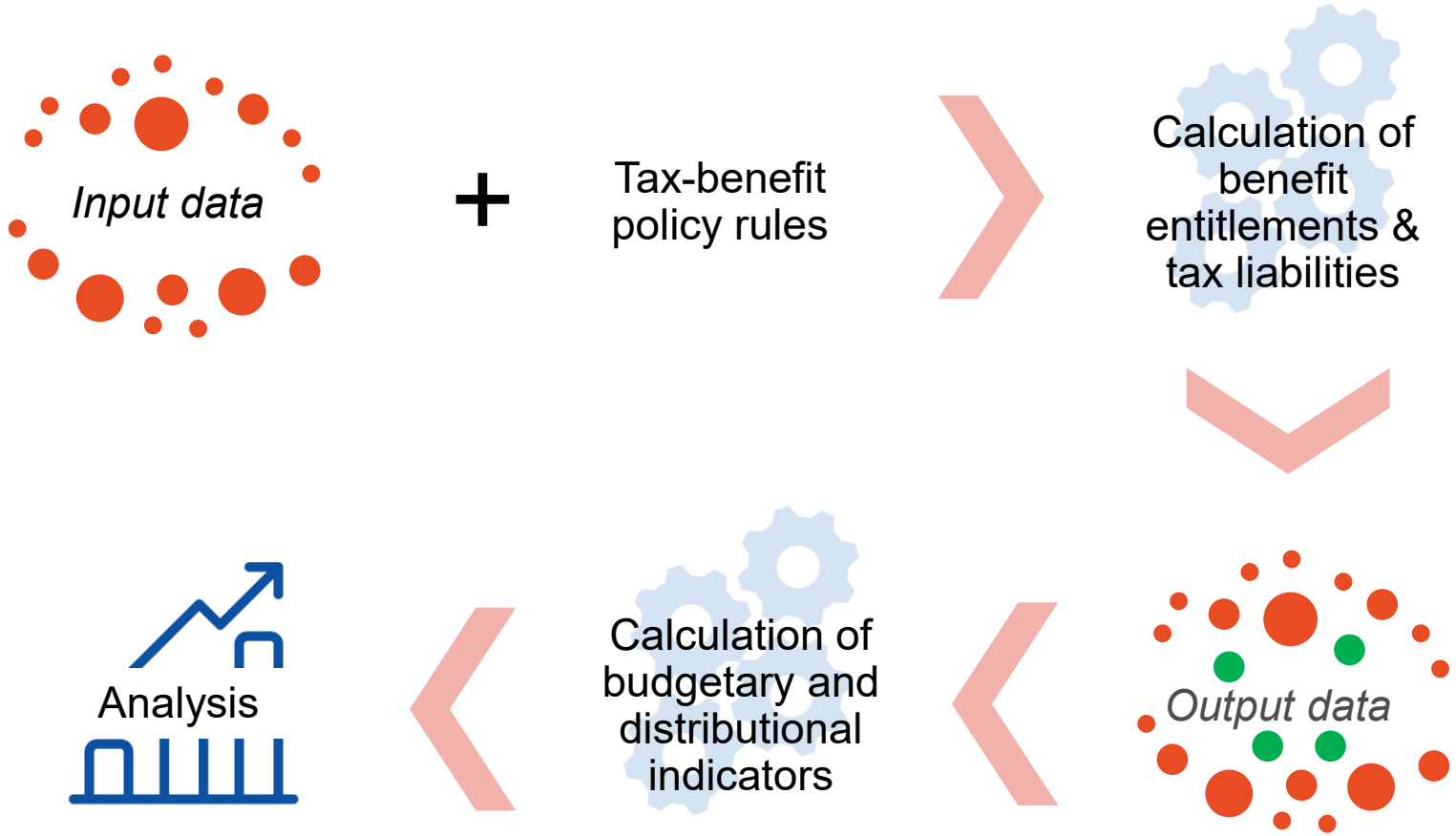
- METRs operate on the intensive margin: they show how much of the additional labour earnings is lost to extra taxes and extra social contributions due, and to social benefits reduced or withdrawn because of the means test.

- The METR facing individual *i* in household *h* is:

$$METR_i = 1 - \frac{Y_h^1 - Y_h^0}{E_i^1 - E_i^0}$$

- Where:
  - E_i^1 = *gross earnings of individual i when working more*
  - E_i^0 = *gross earnings of individual i when working less*
  - Y_h^1 = *household income when individual i when working more*
  - Y_h^0 = *household income when individual i when working less*

EUROMOD: the tax-benefit microsimulation model for the EU



Hypothetical Household Tool (HHoT)

Surveys
(EU-SILC + HBS)

EUROMOD

Hypothetical households

- Taxes: personal income taxes, property taxes*, consumption taxes (VAT and excises).
- Social Insurance Contributions: employee, self-employed, employer.
- Benefits: pensions*, unemployment, family, social assistance.

Hypothetical Household Tool (HHoT)

- EUROMOD-HHoT is the hypothetical household tool of EUROMOD

- What makes EUROMOD-HHoT special?
  - flexibility and user-friendliness for specifying hypothetical households
  - full integration into EUROMOD framework
  - consistency and complementarity between survey-based microsimulations and hypothetical household simulations

- Main advantages of simulations based on hypothetical data:
  - independent of survey data
  - illustrative tool
  - simplified analysis

The social benefits examined in a nutshell

benefit	monthly benefit rate		annual income threshold
child benefit	1st & 2nd child full rate: €70 lower rate A: €42 lower rate B: €28	3rd+ child full rate: €140 lower rate A: €84 lower rate B: €56	full rate: €0–€6,000 lower rate A: €6,001–€10,000 lower rate B: €10,001–€15,000
guaranteed minimum income	income threshold – assessed income (income disregard: 20% of earnings) max for a person living alone: €216 overall max per household: €972		persons living alone: max €2,592 each additional adult: €1,296 each child: €648
housing benefit	persons living alone: €70 additional household member: €35 overall max: €210/month		persons living alone: max €7,000 each additional family member: €3,500 overall max: €21,000
childcare voucher	infants aged <2.5 years: €294 toddlers aged 2.5-4 years: €237 (incl. meals)		families with ≤2 children: max €27,000 each additional child: €3,000 overall max: €36,000/year

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PTRs: 8 scenarios

- All 8 scenarios look at changes in net household disposable income when:
  - woman moves from non-employment in t_0
  - … to taking up a full-time job on the minimum wage in t_1

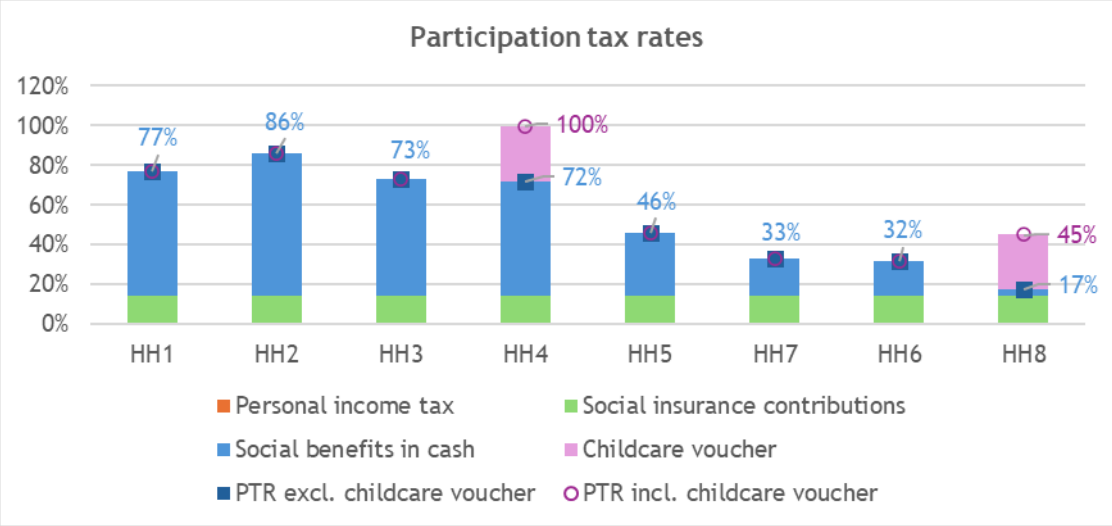
- In all 8 scenarios, the couples:
  - have one child aged 2
  - live in rented accommodation
  - have no other market (non-labour) income

- In scenarios 1-4: woman received unemployment benefit when non-working
- In scenarios 5-8: woman did not receive unemployment benefit

- In scenarios 1 & 5: man not in work
- In scenarios 2 & 6: man working part-time on 50% of the minimum wage
- In scenarios 3 & 7: man working full-time on 100% of the minimum wage
- In scenarios 4 & 8: man working full-time on 150% of the minimum wage

estimated PTRs under the 8 scenarios

- PTRs are pretty prohibitive (in excess of 70%)
  - ✓ if non-employed woman receives unemployment benefit in t_0
  - ✓ … especially if household loses childcare voucher in t_1 (PTR=99.6%)
- PTRs are lower but still high (over 30%)
  - ✓ if non-employed woman receives no unemployment benefit in t_0



METRs: 4 scenarios

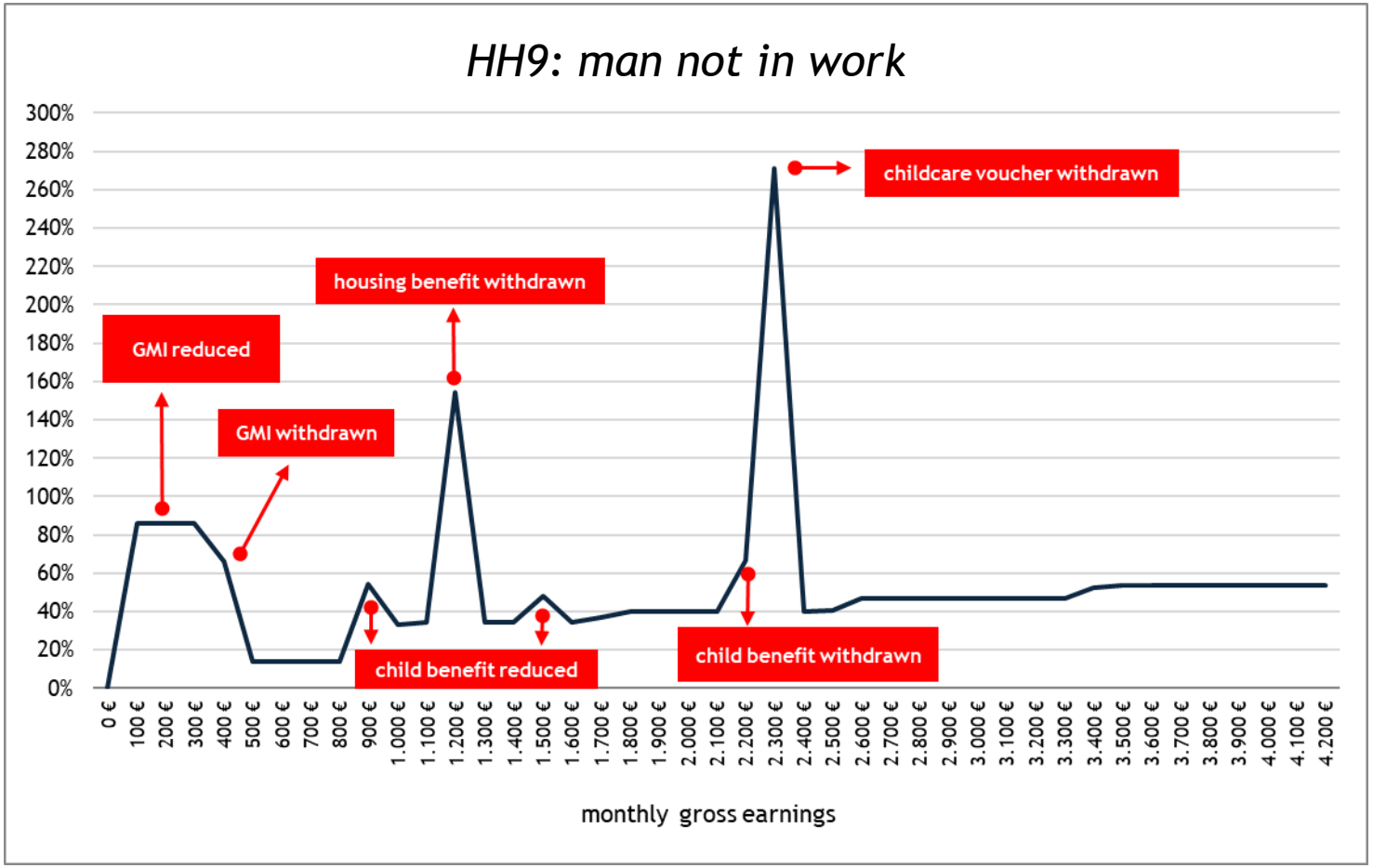
- All 4 scenarios look at changes in net household disposable income when:
  - working woman's earnings increase by increments of €100 per month

- In all 4 scenarios, the couples:
  - have one child aged 2
  - live in rented accommodation

- In scenario 9: man not in work
- In scenario 10: man working part-time on 50% of the minimum wage
- In scenario 11: man working full-time on 100% of the minimum wage
- In scenario 12: man working full-time on 150% of the minimum wage

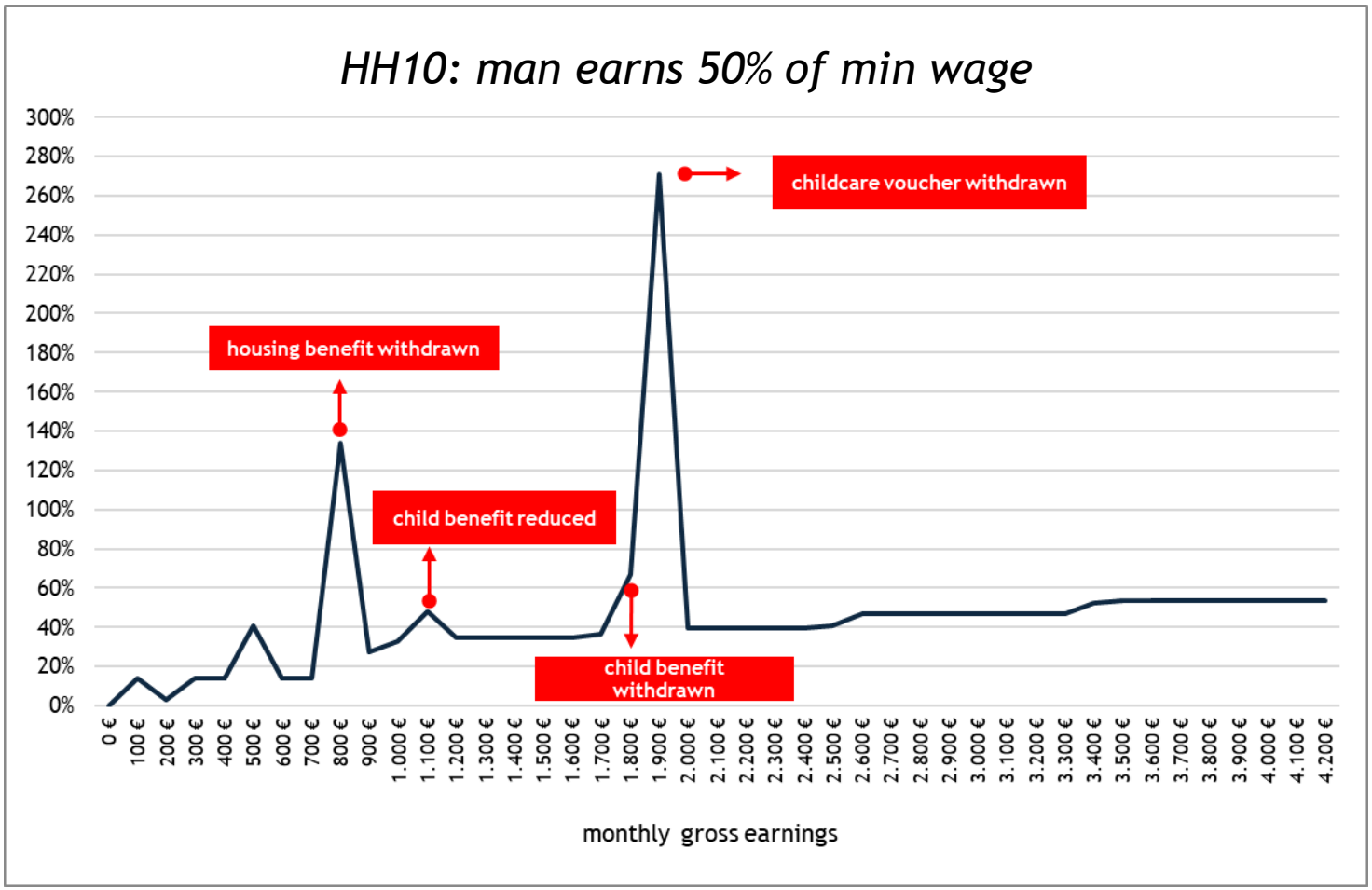
estimated METRs under scenario 9

Kinks around benefit withdrawal points: METRs rise to very high levels



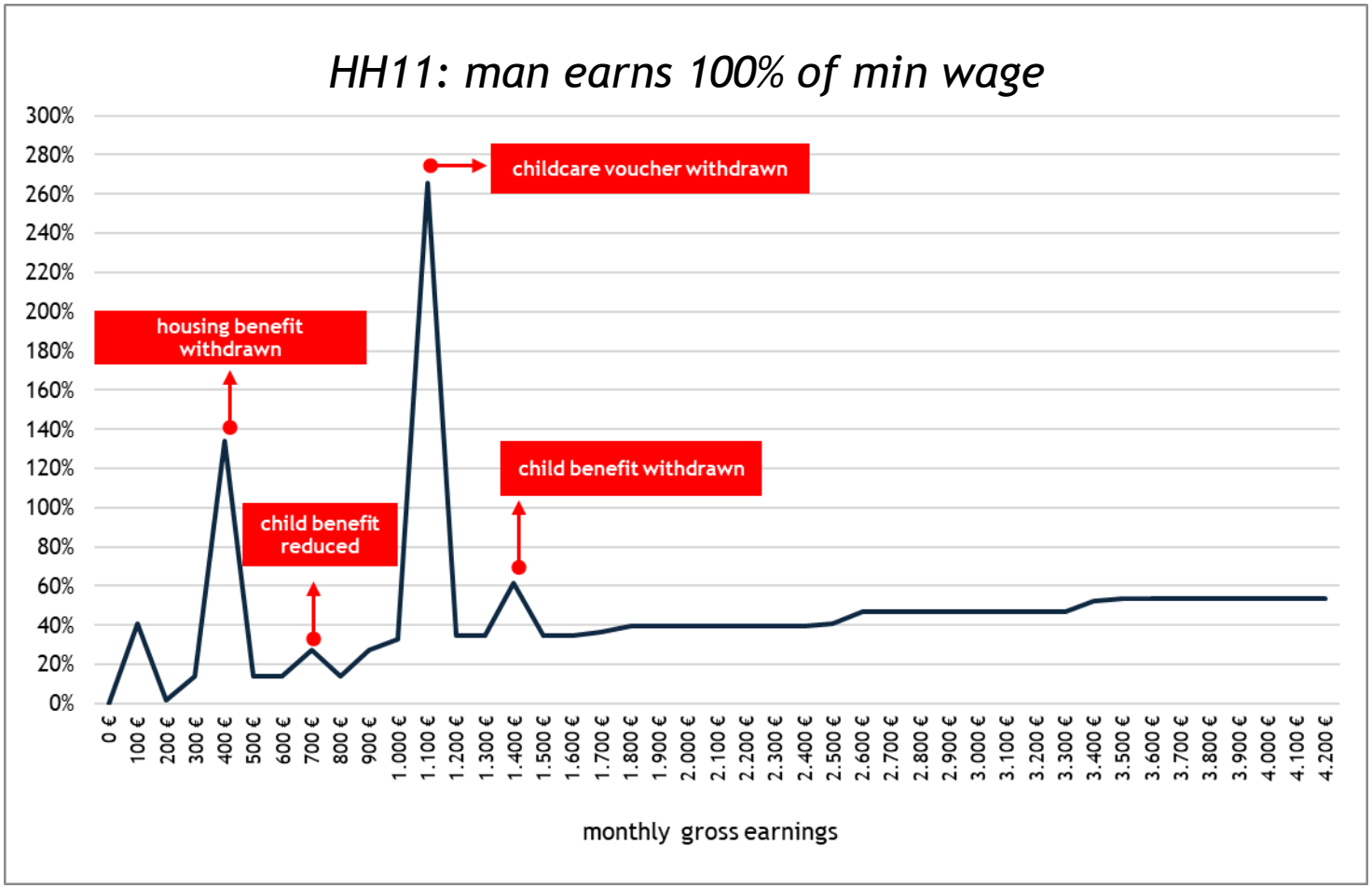
estimated METRs under scenario 10

Kinks around benefit withdrawal points: METRs rise to very high levels



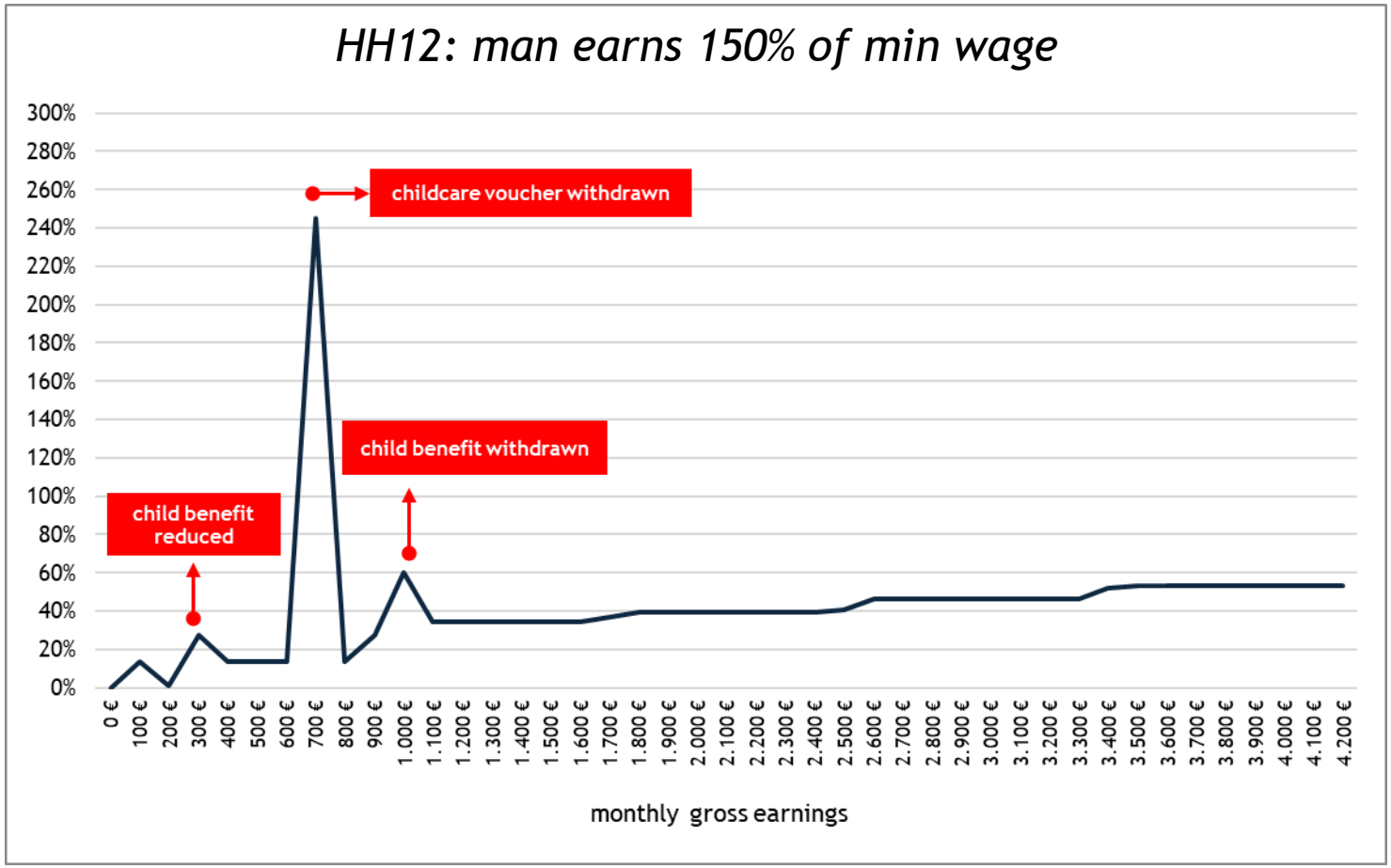
estimated METRs under scenario 11

Kinks around benefit withdrawal points: METRs rise to very high levels



estimated METRs under scenario 12

Kinks around benefit withdrawal points: METRs rise to very high levels



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Work disincentives in Greece

- The strengthening of the social safety net in the 2010s

  … (a period when important means-tested benefits were introduced)

  1. significantly improved the anti-poverty performance of the Greek welfare state

  2. worsened work disincentives, or introduced somewhere previously none existed

An inescapable trade-off

- In a sense, work disincentives are part and parcel of all anti-poverty policy:
  - policy makers can make work disincentives disappear by eliminating all income support to the non-working poor
  - if, on the other hand, policy makers opt to offer the non-working poor some income guarantee that enables them to live on benefits, they may well decide to do just that
  - the decision of benefit recipients not to work is rational: it is the result not of some moral failing but of welfare maximisation under constraints
  - the combined effect of income taxes, social contributions, and benefit reductions or withdrawals is to that often work does not pay
  - (at least not in the relevant range of low-paid work usually on offer)

The poverty trap: UK in the 1980s

- The resulting poverty trap is not a Greek exception: work disincentives used to be forbidding even in the countries which pioneered the social safety net (e.g. the UK)
- The combination of income taxes, national insurance contributions and loss of social benefits while on low earnings meant that recipients' net income was only marginally higher when in work than when living off benefits
- The problem was compounded by the fact that Supplementary Benefit was a *passport benefit:* claiming it made recipients automatically eligible for other benefits too (e.g. housing allowances, free school meals etc.), while losing it had a cascade effect as access to all of these other benefits was withdrawn
- As a result, recipients were often better off on benefits than in work
- In the early 1980s, at the point at which entitlement to free school meals ended, an extra £1 of earnings cost nearly £3 in taxes, contributions, and social benefits (METR ≈ 300%)

The informal employment trap: Greece in the 2020s

- In Greece, forbidding PTRs and METRs are more likely to result in benefit recipients taking up jobs in the informal sector rather than not working at all

- Viewed from this perspective, (formal) work disincentives resulting from the newly introduced social benefits

- (and their interaction with taxes and social contributions)

- … contribute to the perpetuation of the country's low-wage / low-value added growth model

Policy design

- To some extent, work disincentives are due to poor policy design:
  - PTRs and METRs are unnecessarily high when:
    - ✓ a country's social protection system excessively relies on means testing
    - ✓ benefit rules interact haphazardly with the rest of the tax-benefit system
  - It follows that better policy design can reduce PTRs and METRs to less forbidding levels

Lessons for policy (1)

- What can be realistically done?

  1. Lower the rate at which benefits are reduced as recipients' income rises

     - *Eliminate cases where a benefit is either available in full or not available at all (as in housing benefit and childcare voucher)*
     - *Use elementary algebra (as in guaranteed minimum income) rather than a fixed small number of benefit rates (e.g. full rate / reduced rate A / reduced rate B, as in child benefit)*
     - *(Resist temptation to reduce the number of reduced rates, as the government has announced it plans to do in child benefit)*

Lessons for policy (2)

- What can be realistically done?

2. Carefully (re)design social benefit entitlement rules, and their interaction with taxes and social contributions

   - *Keep benefit withdrawal rates < 100% (e.g. by allowing for income disregards, as in guaranteed minimum income)*
   - *Broadly define assessed income*
   - *Consistently define equivalence scales*
   - *Order social benefits sequentially (e.g. GMI last)*

Lessons for policy (3)

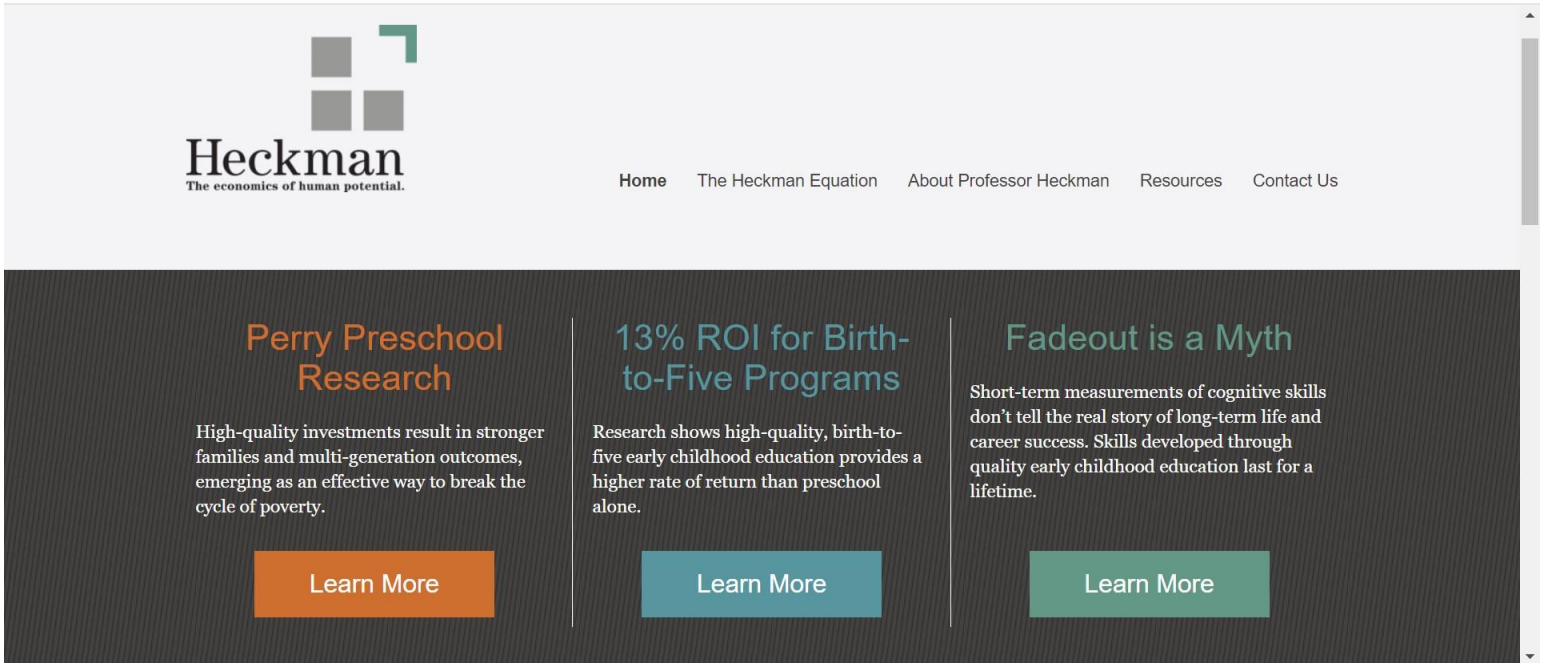
- What can be realistically done?

3. Make some social benefits available to all, irrespective of income

   - *Case in point: childcare*

   - *James Heckman has argued that universal access to high-quality affordable childcare is desirable on efficiency grounds (ROI: 13%)*

The Heckman Equation



For more information see: https://heckmanequation.org/