How Unequal Is Europe?
Evidence From Distributional National
Accounts, 1980-2017

Technical Appendix

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Appendix

A   Calibration on top shares via linearization

A.1   The linear case

Let U be a finite population of size N, with units indexed by $k \in \{1, \ldots, N\}$. Let y be a variable (say, income) that takes the value y_k for the unit k. Let s be a random survey subsample drawn from U of size n. Let $\pi_k = \mathbb{P}\{k \in s\}$ be the probability that k in included in the sample s. The value $d_k = 1/\pi_k$ is called the *design weight* of observation k. If a statistic T over the complete population U can be written:

$$T = \sum_{k \in U} \phi(y_k)$$

Then the Horvitz-Thompson estimator of this quantity over the subsample s is:

$$\hat{T} = \sum_{k \in s} d_k \phi(y_k)$$

Assume that we know, from a external source, the value of m statistics $(C_1, C_2, \ldots, C_m)$ over the complete population U that can be written, for $p \in \{1, \ldots, m\}$:

$$C_p = \sum_{k \in U} \phi_p(y_k)$$

The Horvitz-Thompson estimator $\hat{C}_p$ of C_p is:

$$\hat{C}_p = \sum_{k \in s} d_k \phi_p(y_k)$$

In general, $\hat{C}_p$ will not be exactly equal to C_p, either because the design weights d_k are invalid (because of, say, unit nonresponse correlated with y), or simply because of sampling variability.

This raises the question: is it possible to improve the design weights $\{d_k, k \in s\}$ using the information contained in $(C_1, C_2, \ldots, C_m)$? The question was answered positively by Deville and Särndal (1992), using the calibration procedure.

A.2   The calibration procedure

Let $\delta : (x,y) \mapsto d(x,y)$ be a distance function. For any statistic T written as:

$$T = \sum_{k \in U} \phi(y_k)$$

and any set of *calibration weights* $\{w_k, k \in s\}$, define the calibration estimator:

$$\tilde{T} = \sum_{k \in s} w_k \phi(y_k)$$

The calibration procedure finds $\{w_k, k \in s\}$ to solve the constrained optimization program:

$$\min \sum_{k \in s} \delta(w_k, d_k) \qquad \text{s.t.} \qquad \forall p \in \{1, \ldots, m\} \quad \tilde{C}_p = C_p$$

That is, it finds a set of weights as close as possible from the initial weights (thus minimizing distortions from the original distribution), such that the constraints $\tilde{C}_p = C_p$, known as the *calibration margins*, are satisfied.

Because of the margins are a linear function of the data, the solution can be written:

$$w_k = d_k F[\lambda_1 \phi_1(y_k) + \cdots + \lambda_p \phi_p(y_p)]$$

where $d_k F(w)$ is the inverse of $\frac{\partial}{\partial w} \delta(w, d_k)$. The $\lambda_1, \ldots, \lambda_p$ are Lagrange multipliers whose value is determined by solving the equations associated to the equality constraints.

A.3   Interpretation as a nonresponse model

This result can further be interpreted in terms of a nonresponse model. Indeed, $1/d_k$ is the probability of unit k being selected for inclusion in the sample. Ideally, w_k should correspond to the probability of unit k being effectively included in the sample, taking into account the possibility of unit nonresponse. Therefore,

$$\frac{w_k}{d_k} = F[\lambda_1 \phi_1(y_k) + \cdots + \lambda_p \phi_1(y_p)]$$

is the probability of nonresponse as a function of $\phi_1(y_k), \ldots, \phi_1(y_p)$. The $\lambda_1, \ldots, \lambda_p$ are the parameters of the model, and F is the link function. If $\delta(w, d) = \frac{1}{2}(w - d)^2/d$ is the χ^2 distance, then F is

linear and we get a linear probability model. But we could also choose δ to get, say, a logit model (which avoids the risk of estimated probabilities below zero, and therefore negative weights).

Calibration has been shown to reduce both the variance and the bias in survey data. The variance reduction is asymptotically identical regardless of the distance used for the procedure. The bias reduction may depend of the specific distance chosen because it determines the nonresponse model. But even if the model is not exactly right we can expect significant improvement.

A.3.1 Calibration on Top Shares

Partial Sums and Top Shares in Survey Data   Let $\alpha \in [0,1]$. Over the complete population U, we define the partial sum of the bottom $100\alpha\%$ as:

$$Y_\alpha = \sum_{k \in U} y_k H(\alpha N - k + 1)$$

where $H(x) = 0$ if $x < 0$, $H(x) = x$ if $0 \leq x < 1$ and $H(x) = 1$ if $x \geq 1$. Its survey sample counterpart is:

$$\hat{Y}_\alpha = \sum_{k \in s} y_k H \left(\frac{\alpha N - W_{k-1}}{w_k} \right)$$

where $W_k = \sum_{k \in s} w_l \mathbb{1}_{y_l \leq y_k}$ and $N = W_n$. The income share of the top $100(1 - \alpha)\%$ is:

$$S_\alpha = \frac{Y - Y_\alpha}{Y} \qquad \text{and} \qquad \hat{S}_\alpha = \frac{\hat{Y} - \hat{Y}_\alpha}{\hat{Y}}$$

Linearization of Top Shares   Neither the top share or the partial sum can be rewritten as $\sum_{k \in s} w_k \phi(y_k)$ for some ϕ. Therefore we cannot directly apply the calibration method to it. A solution suggested by Lesage (2009) is to linearize the statistic using Deville's (1999) concept of *influence*.

The influence measures the effect of a marginal change in the weight of an observation on the statistic of interest. Formally, let M be the measure that puts a weight equal to 1 on each individual in U, and $M + t\delta_k$ the measure that puts a weight equal to 1 on each individual except k, which has a weight $1 + t$. Let $T(M)$ and $T(M + t\delta_k)$ be the corresponding values of a arbitrary statistic T. The influence of observation k is:

$$I(T)_k = z_k = \lim_{t \to 0} \frac{T(M + t\delta_k) - T(M)}{t}$$

Here, $\sum_{k \in U} z_k$ can be viewed as the linearized version on the original statistic. As Lesage (2009)

explains, we can perform an approximate calibration on the statistic T in the nonlinear case by using the variable z_k instead of y_k in the standard calibration method. Langel and Tillé (2011) show that the linearized partial sum can be written as:

$$I(Y_\alpha)_k = y_k H(\alpha N - k + 1) + (\alpha - \mathbb{1}_{y_k < Q_\alpha}) Q_\alpha$$

where $Q_\alpha = y_i$ with $N_{i-1} < \alpha N \leq N_i$. Its survey sample counterpart is:

$$I(\hat{Y}_\alpha)_k = y_k H \left(\frac{\alpha N - W_{k-1}}{w_k} \right) + (\alpha - \mathbb{1}_{y_k < \hat{Q}_\alpha}) \hat{Q}_\alpha$$

where $\hat{Q}_\alpha = y_i$ with $W_{i-1} < \alpha W_n \leq W_i$.

Enforcing the constraint $\hat{S}_\alpha = S_\alpha$ is equivalent to enforcing $\hat{Y}_\alpha - (1 - S_\alpha)\hat{Y} = 0$. Therefore we can calibrate the survey directly on the top share by setting:

$$z_k = y_k H \left(\frac{\alpha N - W_{k-1}}{w_k} \right) + (\alpha - \mathbb{1}_{y_k < \hat{Q}_\alpha}) \hat{Q}_\alpha - (1 - S_\alpha) y_k$$

and calibrate so that the sum of the z_k is zero.

B Sources by type of data series

Table B.1: Survey data sources: pre-tax income

Country	Equal-split adults	Per capita	Households	Individuals	OECD	Square root
Albania	—	—	—	—	—	—
Austria	1995–2001: ECHP 2004–2013: LIS 2004–2016: SILC	1995–2001: ECHP 2004–2013: LIS 2004–2016: SILC	1995–2001: ECHP 2004–2013: LIS 2004–2016: SILC	1995–2001: ECHP 2004–2013: LIS 2004–2016: SILC	1995–2001: ECHP 2004–2013: LIS 2004–2016: SILC	1995–2001: ECHP 2004–2013: LIS 2004–2016: SILC
Belgium	1992–1997: LIS 1994–2001: ECHP 2004–2016: SILC	1992–1997: LIS 1994–2001: ECHP 2004–2016: SILC	1992–1997: LIS 1994–2001: ECHP 2004–2016: SILC	1992–1997: LIS 1994–2001: ECHP 2004–2016: SILC	1992–1997: LIS 1994–2001: ECHP 2004–2016: SILC	1992–1997: LIS 1994–2001: ECHP 2004–2016: SILC
Bosnia and Herzegovina	—	1983–1990: Milanovic and Ying 1996	1978: van Ginneken and Park 1984	—	—	—
Bulgaria	2007–2016: SILC	1975–1990: Statistical Yearbook 1989–1993: Milanovic 1998 2007–2016: SILC	2007–2016: SILC	2007–2016: SILC	2007–2016: SILC	2007–2016: SILC
Croatia	2010–2016: SILC	1983–1990: Milanovic and Ying 1996 2010–2016: SILC	2010–2016: SILC	2010–2016: SILC	2010–2016: SILC	2010–2016: SILC
Cyprus	2005–2016: SILC	2005–2016: SILC	2005–2016: SILC	2005–2016: SILC	2005–2016: SILC	2005–2016: SILC
Czech Republic	1992–2013: LIS 2005–2016: SILC	1992–2013: LIS 2005–2016: SILC	1992–2013: LIS 2005–2016: SILC	1992–2013: LIS 2005–2016: SILC	1992–2013: LIS 2005–2016: SILC	1992–2013: LIS 2005–2016: SILC
Denmark	1987–2013: LIS 1994–2001: ECHP 2004–2016: SILC	1981: Statistical Yearbook 1987–2013: LIS 1994–2001: ECHP 2004–2016: SILC	1987–2013: LIS 1994–2001: ECHP 1997: Danmarks Statistik 1999 1998: Danmarks Statistik 2000 1999: Danmarks Statistik 2001 2000: Danmarks Statistik 2002 2001: Danmarks Statistik 2003 2002: Danmarks Statistik 2004 2004–2016: SILC	1987–2013: LIS 1994–2001: ECHP 2004–2016: SILC	1987–2013: LIS 1994–2001: ECHP 2004–2016: SILC	1987–2013: LIS 1994–2001: ECHP 2004–2016: SILC

Estonia	2004–2013: LIS 2004–2016: SILC	1993: Milanovic and Ying 1996 2004–2013: LIS 2004–2016: SILC	2004–2013: LIS 2004–2016: SILC	2004–2013: LIS 2004–2016: SILC	2004–2013: LIS 2004–2016: SILC	2004–2013: LIS 2004–2016: SILC
Finland	1987–2013: LIS 1996–2001: ECHP 2004–2016: SILC	1987–2013: LIS 1996–2001: ECHP 2004–2016: SILC	1987–2013: LIS 1996–2001: ECHP 2004–2016: SILC	1987–2013: LIS 1996–2001: ECHP 2004–2016: SILC	1987–2013: LIS 1996–2001: ECHP 2004–2016: SILC	1987–2013: LIS 1996–2001: ECHP 2004–2016: SILC
France	1995–2001: ECHP 2007–2016: SILC	1995–2001: ECHP 2007–2016: SILC	1995–2001: ECHP 2007–2016: SILC	1994–2001: ECHP 2004–2016: SILC	1995–2001: ECHP 2007–2016: SILC	1995–2001: ECHP 2007–2016: SILC
Germany	1978–2015: LIS 2005–2016: SILC	1978–2015: LIS 2005–2016: SILC	1978–2015: LIS 2005–2016: SILC	1978–2015: LIS 1994–2001: ECHP 2005–2016: SILC	1978–2015: LIS 2005–2016: SILC	1978–2015: LIS 2005–2016: SILC
Greece	1995–2001: ECHP 2007–2013: LIS 2007–2016: SILC	1995–2001: ECHP 2007–2013: LIS 2007–2016: SILC	1995–2001: ECHP 2007–2013: LIS 2007–2016: SILC	1994–2001: ECHP 2007–2013: LIS 2007–2016: SILC	1995–2001: ECHP 2007–2013: LIS 2007–2016: SILC	1995–2001: ECHP 2007–2013: LIS 2007–2016: SILC
Hungary	2007–2016: SILC	2007–2016: SILC	2007–2016: SILC	2005–2016: SILC	2007–2016: SILC	2007–2016: SILC
Iceland	2004–2010: LIS 2004–2015: SILC	2004–2010: LIS 2004–2015: SILC	2004–2010: LIS 2004–2015: SILC	2004–2010: LIS 2004–2015: SILC	2004–2010: LIS 2004–2015: SILC	2004–2010: LIS 2004–2015: SILC
Ireland	1994–1997: ECHP 2004–2010: LIS 2004–2016: SILC	1994–1997: ECHP 2004–2010: LIS 2004–2016: SILC	1994–1997: ECHP 2004–2010: LIS 2004–2016: SILC	1994–2001: ECHP 2004–2010: LIS 2004–2016: SILC	1994–1997: ECHP 2004–2010: LIS 2004–2016: SILC	1994–1997: ECHP 2004–2010: LIS 2004–2016: SILC
Italy	1994–2001: ECHP 2007–2016: SILC	1994–2001: ECHP 2007–2016: SILC	1994–2001: ECHP 2007–2016: SILC	1994–2001: ECHP 2007–2016: SILC	1994–2001: ECHP 2007–2016: SILC	1994–2001: ECHP 2007–2016: SILC
Kosovo	—	—	—	—	—	—
Latvia	2007–2016: SILC	2007–2016: SILC	2007–2016: SILC	2007–2016: SILC	2007–2016: SILC	2007–2016: SILC
Lithuania	2005–2016: SILC 2010–2013: LIS	2005–2016: SILC 2010–2013: LIS	2005–2016: SILC 2010–2013: LIS	2005–2016: SILC 2010–2013: LIS	2005–2016: SILC 2010–2013: LIS	2005–2016: SILC 2010–2013: LIS
Luxembourg	2004–2013: LIS 2004–2016: SILC	2004–2013: LIS 2004–2016: SILC	2004–2013: LIS 2004–2016: SILC	1994–1996: ECHP 2004–2013: LIS 2004–2016: SILC	2004–2013: LIS 2004–2016: SILC	2004–2013: LIS 2004–2016: SILC
Macedonia	—	1983–1990: Milanovic and Ying 1996	1978: van Ginneken and Park 1984	—	—	—

Malta	2007–2014: SILC	2007–2016: SILC	2007–2016: SILC	2007–2016: SILC	2007–2016: SILC	2007–2016: SILC
Moldova	—	1993: Milanovic 1998	—	—	—	—
Montenegro	—	1983–1990: Milanovic and Ying 1996	1978: van Ginneken and Park 1984	—	—	—
Netherlands	1983–2013: LIS 2005–2016: SILC	1983–2013: LIS 2005–2016: SILC	1983–2013: LIS 2005–2016: SILC	1983–2013: LIS 2005–2016: SILC	1983–2013: LIS 2005–2016: SILC	1983–2013: LIS 2005–2016: SILC
Norway	1979–2013: LIS 2004–2016: SILC	1979–2013: LIS 2004–2016: SILC	1979–2013: LIS 2004–2016: SILC	1979–2013: LIS 2004–2016: SILC	1979–2013: LIS 2004–2016: SILC	1979–2013: LIS 2004–2016: SILC
Poland	2005–2016: SILC	2005–2016: SILC	2005–2016: SILC	2005–2016: SILC	2005–2016: SILC	2005–2016: SILC
Portugal	2007–2016: SILC	2007–2016: SILC	2007–2016: SILC	1994–2001: ECHP 2007–2016: SILC	2007–2016: SILC	2007–2016: SILC
Romania	2007–2016: SILC	1989–1994: Milanovic 1998 2007–2016: SILC	2007–2016: SILC	2007–2016: SILC	2007–2016: SILC	2007–2016: SILC
Serbia	2013–2016: SILC	1983–1990: Milanovic and Ying 1996 2013–2016: SILC	1978: van Ginneken and Park 1984 2013–2016: SILC	2013–2016: SILC	2013–2016: SILC	2013–2016: SILC
Slovakia	1992–2013: LIS 2005–2016: SILC	1992–2013: LIS 2005–2016: SILC	1992–2013: LIS 2005–2016: SILC	1992–2013: LIS 2005–2016: SILC	1992–2013: LIS 2005–2016: SILC	1992–2013: LIS 2005–2016: SILC
Slovenia	2005–2016: SILC	2005–2016: SILC	1978: van Ginneken and Park 1984 2005–2016: SILC	2005–2016: SILC	2005–2016: SILC	2005–2016: SILC
Spain	2006–2016: SILC 2007–2013: LIS	2006–2016: SILC 2007–2013: LIS	2006–2016: SILC 2007–2013: LIS	1994–2001: ECHP 2006–2016: SILC 2007–2013: LIS	2006–2016: SILC 2007–2013: LIS	2006–2016: SILC 2007–2013: LIS
Sweden	1975–2005: LIS 2004–2016: SILC	1975–2005: LIS 2004–2016: SILC	1975–2005: LIS 2004–2016: SILC	1975–2005: LIS 2004–2016: SILC	1975–2005: LIS 2004–2016: SILC	1975–2005: LIS 2004–2016: SILC
Switzerland	1982–2013: LIS 2007–2016: SILC	1982–2013: LIS 2007–2016: SILC	1982–2013: LIS 2007–2016: SILC	1982–2013: LIS 2007–2016: SILC	1982–2013: LIS 2007–2016: SILC	1982–2013: LIS 2007–2016: SILC
United Kingdom	1979–2013: LIS 2006–2016: SILC	1979–2013: LIS 2006–2016: SILC	1979–2013: LIS 2006–2016: SILC	1979–2013: LIS 1994–2001: ECHP 2005–2016: SILC	1979–2013: LIS 2006–2016: SILC	1979–2013: LIS 2006–2016: SILC

Table B.2: Survey data sources: post-tax income

Country	Equal-split adults	Per capita	Households	Individuals	OECD	Square root
Albania	—	—	—	—	—	—
Austria	1994–2013: LIS 1995–2001: ECHP 2004–2016: SILC	1994–2013: LIS 1995–2001: ECHP 2004–2016: SILC	1987–2013: LIS 1995–2001: ECHP 2004–2016: SILC	1995–2001: ECHP 2004–2013: LIS 2004–2016: SILC	1994–2013: LIS 1995–2001: ECHP 2004–2016: SILC	1994–2013: LIS 1995–2001: ECHP 2004–2016: SILC
Belgium	1985–2000: LIS 1994–2001: ECHP 2004–2016: SILC	1985–2000: LIS 1994–2001: ECHP 2004–2016: SILC	1979: UN 1985 1985–2000: LIS 1994–2001: ECHP 2004–2016: SILC	1992–1997: LIS 1994–2001: ECHP 2004–2016: SILC	1985–2000: LIS 1994–2001: ECHP 2004–2016: SILC	1985–2000: LIS 1994–2001: ECHP 2004–2016: SILC
Bosnia and Herzegovina	—	—	—	—	—	—
Bulgaria	2007–2016: SILC	1992–2000: Transmonee 2004 2001–2002: Transmonee 2011 2003: Transmonee 2005 2007–2016: SILC	2007–2016: SILC	2007–2016: SILC	2007–2016: SILC	2007–2016: SILC
Croatia	2010–2016: SILC	2010–2016: SILC	2010–2016: SILC	2010–2016: SILC	2010–2016: SILC	2010–2016: SILC
Cyprus	2005–2016: SILC	1990–1996: WYD 2005–2013: PovcalNet 2005–2016: SILC	2005–2016: SILC	2005–2016: SILC	2005–2016: SILC	2005–2016: SILC
Czech Republic	1992–2013: LIS 2005–2016: SILC	1976–1988: Atkinson and Micklewright 1992 1992–2013: LIS 2005–2016: SILC	1992–2013: LIS 2005–2016: SILC	1992–2013: LIS 2005–2016: SILC	1992–2013: LIS 2005–2016: SILC	1992–2013: LIS 2005–2016: SILC
Denmark	1987–2013: LIS 1994–2001: ECHP 2004–2016: SILC	1976: van Ginneken and Park 1984 1987–2013: LIS 1987–2013: PovcalNet 1994–2001: ECHP 2004–2016: SILC	1976: van Ginneken and Park 1984 1987–2013: LIS 1994–2001: ECHP 1997: Danmarks Statistik 1999 1998: Danmarks Statistik 2000 1999: Danmarks Statistik 2001 2000: Danmarks Statistik 2002 2002: Danmarks Statistik 2004 2004–2016: SILC	1987–2013: LIS 1994–2001: ECHP 2004–2016: SILC	1987–2013: LIS 1994–2001: ECHP 2004–2016: SILC	1987–2013: LIS 1994–2001: ECHP 2004–2016: SILC
Estonia	2000–2013: LIS 2004–2016: SILC	1988–2014: PovcalNet 2000–2013: LIS 2004–2016: SILC	2000–2013: LIS 2004–2016: SILC	2004–2013: LIS 2004–2016: SILC	2000–2013: LIS 2004–2016: SILC	2000–2013: LIS 2004–2016: SILC
Finland	1987–2013: LIS 1996–2001: ECHP 2004–2016: SILC	1976–2002: Jäntti 2005 1987–2013: LIS 1996–2001: ECHP 2004–2016: SILC	1987–2013: LIS 1996–2001: ECHP 2004–2016: SILC	1987–2013: LIS 1996–2001: ECHP 2004–2016: SILC	1976–2003: Statistics Finland 2005 1987–2013: LIS 1996–2001: ECHP 2004–2016: SILC	1987–2013: LIS 1996–2001: ECHP 2004–2016: SILC

France	1978–2010: LIS 1995–2001: ECHP 2004–2016: SILC	1975: van Ginneken and Park 1984 1978–2010: LIS 1995–2001: ECHP 2004–2016: SILC	1978–2010: LIS 1995–2001: ECHP 2004–2016: SILC	1994–2001: ECHP 2007–2016: SILC	1978–2010: LIS 1995–2001: ECHP 2004–2016: SILC	1978–2010: LIS 1995–2001: ECHP 2004–2016: SILC
Germany	1978–2015: LIS 2005–2016: SILC	1978–2015: LIS 2005–2016: SILC	1978–2015: LIS 2005–2016: SILC	1978–2015: LIS 1994–2001: ECHP 2005–2016: SILC	1978–2015: LIS 2005–2016: SILC	1978–2015: LIS 2005–2016: SILC
Greece	1995–2001: ECHP 1995–2013: LIS 2004–2016: SILC	1995–2001: ECHP 1995–2013: LIS 2004–2014: PovcalNet 2004–2016: SILC	1995–2001: ECHP 1995–2013: LIS 2004–2016: SILC	1994–2001: ECHP 2007–2013: LIS 2007–2016: SILC	1995–2001: ECHP 1995–2013: LIS 2004–2016: SILC	1995–2001: ECHP 1995–2013: LIS 2004–2016: SILC
Hungary	2007–2016: SILC	1977–1987: Atkinson and Micklewright 1992 1989–2002: Transmonee 2004 2007–2016: SILC	2007–2016: SILC	2005–2016: SILC	2007–2016: SILC	2007–2016: SILC
Iceland	2004–2010: LIS 2004–2015: SILC	2004–2010: LIS 2004–2014: PovcalNet 2004–2015: SILC	2004–2010: LIS 2004–2015: SILC	2004–2010: LIS 2004–2015: SILC	2004–2010: LIS 2004–2015: SILC	2004–2010: LIS 2004–2015: SILC
Ireland	1994–1997: ECHP 2000–2010: LIS 2004–2016: SILC	1994–1997: ECHP 2000–2010: LIS 2004–2016: SILC	1980–1994: Nolan & Maitre 2000 1994–1997: ECHP 2000–2010: LIS 2004–2016: SILC	1994–2001: ECHP 2004–2010: LIS 2004–2016: SILC	1994–1997: ECHP 2000–2010: LIS 2004–2016: SILC	1994–1997: ECHP 2000–2010: LIS 2004–2016: SILC
Italy	1986–2014: LIS 1994–2001: ECHP 2004–2016: SILC	1986–2014: LIS 1994–2001: ECHP 2004–2016: SILC	1981–1995: Brandolini 1999 1986–2014: LIS 1987–2002: Brandolini 2004 1994–2001: ECHP 2004–2016: SILC	1994–2001: ECHP 2007–2016: SILC	1986–2014: LIS 1994–2001: ECHP 2004–2016: SILC	1986–2014: LIS 1987–2002: Brandolini 2004 1994–2001: ECHP 2004–2016: SILC
Kosovo	—	—	—	—	—	—
Latvia	2005–2016: SILC	1988–2014: PovcalNet 1995: Milanovic 1998 1997–2002: Transmonee 2004 2003: Transmonee 2005 2005–2016: SILC	2005–2016: SILC	2007–2016: SILC	2005–2016: SILC	2005–2016: SILC
Lithuania	2005–2016: SILC 2010–2013: LIS	1988–2014: PovcalNet 2005–2016: SILC 2010–2013: LIS	2005–2016: SILC 2010–2013: LIS	2005–2016: SILC 2010–2013: LIS	2005–2016: SILC 2010–2013: LIS	2005–2016: SILC 2010–2013: LIS
Luxembourg	1985–2013: LIS 2004–2016: SILC	1985–2013: LIS 2004–2016: SILC 2005–2014: PovcalNet	1985–2013: LIS 2004–2016: SILC	1994–2001: ECHP 2004–2013: LIS 2004–2016: SILC	1985–2013: LIS 2004–2016: SILC	1985–2013: LIS 2004–2016: SILC
Macedonia	—	1995–2002: Transmonee 2011 1999–2000: Transmonee 2004 2010–2014: PovcalNet	—	—	—	—
Malta	2007–2014: SILC	2007–2016: SILC	2007–2016: SILC	2007–2016: SILC	2007–2016: SILC	2007–2016: SILC

Moldova	—	—	—	—	—	—
Montenegro	—	—	—	—	—	—
Netherlands	1983–2013: LIS 2005–2016: SILC	1983–2013: LIS 2005–2016: SILC	1983–2013: LIS 2005–2016: SILC	1983–2013: LIS 2005–2016: SILC	1983–2013: LIS 2005–2016: SILC	1983–2013: LIS 2005–2016: SILC
Norway	1979–2013: LIS 2004–2016: SILC	1979–2013: LIS 2004–2016: SILC	1979–2013: LIS 2004–2016: SILC	1979–2013: LIS 2004–2016: SILC	1979–2013: LIS 2004–2016: SILC	1979–2013: LIS 2004–2016: SILC
Poland	1992–2016: LIS 2005–2016: SILC	1983–1989: Atkinson and Micklewright 1992 1989–2002: Transmonee 2004 1992–2016: LIS 2003: Transmonee 2005 2005–2016: SILC 2006–2014: PovcalNet	1992–2016: LIS 2005–2016: SILC	2005–2016: SILC	1992–2016: LIS 2005–2016: SILC	1992–2016: LIS 2005–2016: SILC
Portugal	1994–2001: ECHP 2004–2016: SILC	1980–1990: Gouveia and Tavares 1995 1994–2001: ECHP 2004–2016: SILC	1980–1990: Gouveia and Tavares 1995 1994–2001: ECHP 2004–2016: SILC	1994–2001: ECHP 2007–2016: SILC	1994–2001: ECHP 2004–2016: SILC	1980–1990: Atkinson, Rainwater and Smeeding 1995a 1994–2001: ECHP 2004–2016: SILC
Romania	2007–2016: SILC	1989–2012: PovcalNet 2007–2016: SILC	1989–2000: Transmonee 2004 2007–2016: SILC	2007–2016: SILC	2007–2016: SILC	2007–2016: SILC
Serbia	2006–2016: LIS 2013–2016: SILC	2006–2016: LIS 2013–2016: SILC	2006–2016: LIS 2013–2016: SILC	2013–2016: SILC	2006–2016: LIS 2013–2016: SILC	2006–2016: LIS 2013–2016: SILC
Slovakia	1992–2013: LIS 2005–2016: SILC	1976–1988: Atkinson and Micklewright 1992 1977: UN 1981 1988–1993: Milanovic 1998 1992–2013: LIS 1996–2001: Transmonee 2011 1998–2002: Transmonee 2004 2003: Transmonee 2005 2005–2016: SILC	1992–2013: LIS 2005–2016: SILC	1992–2013: LIS 2005–2016: SILC	1992–2013: LIS 2005–2016: SILC	1992–2013: LIS 2005–2016: SILC
Slovenia	1997–2012: LIS 2005–2016: SILC	1987–1993: Milanovic 1998 1997–2012: LIS 2005–2016: SILC	1997–2012: LIS 2005–2016: SILC	2005–2016: SILC	1997–2012: LIS 2005–2016: SILC	1997–2012: LIS 2005–2016: SILC
Spain	1980–2013: LIS 2006–2016: SILC	1980–2013: LIS 2006–2016: SILC	1980–2013: LIS 2006–2016: SILC	1994–2001: ECHP 2006–2016: SILC 2007–2013: LIS	1980–2013: LIS 2006–2016: SILC	1980–2013: LIS 2006–2016: SILC
Sweden	1975–2005: LIS 2004–2016: SILC	1975–2005: LIS 2004–2016: SILC	1975–2005: LIS 2004–2016: SILC	1975–2005: LIS 1997–2001: ECHP 2004–2016: SILC	1975–2005: LIS 2004–2016: SILC	1975–2005: LIS 2004–2016: SILC
Switzerland	1982–2013: LIS 2007–2016: SILC	1982–2013: LIS 2007–2016: SILC	2000–2013: LIS 2007–2016: SILC	1982–2013: LIS 2007–2016: SILC	1982–2013: LIS 2007–2016: SILC	1982–2013: LIS 2007–2016: SILC
United Kingdom	1979–2013: LIS 2006–2016: SILC	1979–2013: LIS 2006–2016: SILC	1979–2013: LIS 2006–2016: SILC	1979–2013: LIS 1994–2001: ECHP 2005–2016: SILC	1979–2013: LIS 2006–2016: SILC	1979–2013: LIS 2006–2016: SILC

Table B.3: Survey data sources: consumption

Country	Per capita	Households
Albania	1996–2012: PovcalNet	—
Austria	—	—
Belgium	2010: HBS	2010: HBS
Bosnia and Herzegovina	2001–2011: PovcalNet	—
Bulgaria	2010: HBS	2010: HBS
Croatia	2010: HBS	2010: HBS
Cyprus	2010: HBS	2010: HBS
Czech Republic	2010: HBS	2010: HBS
Denmark	2010: HBS	2010: HBS
Estonia	1992–1993: Milanovic and Ying 1996 1998–2004: PovcalNet 2000: LIS 2010: HBS	2000: LIS 2010: HBS
Finland	2010: HBS	2010: HBS
France	2010: HBS	2010: HBS
Germany	2010: HBS	2010: HBS
Greece	2010: HBS	2010: HBS
Hungary	—	—
Iceland	—	—
Ireland	2010: HBS	2010: HBS
Italy	2010: HBS	2010: HBS
Kosovo	2003–2013: PovcalNet 2008: WYD	—

Latvia	1997–2009: PovcalNet 2010: HBS	2010: HBS
Lithuania	2010: HBS	2010: HBS
Luxembourg	2010: HBS	2010: HBS
Macedonia	—	—
Malta	2010: HBS	2010: HBS
Moldova	1997–2015: PovcalNet	—
Montenegro	2005–2014: PovcalNet	—
Netherlands	—	—
Norway	—	—
Poland	2010: HBS	2010: HBS
Portugal	2010: HBS	2010: HBS
Romania	—	—
Serbia	2010: LIS 2010: PovcalNet	2010: LIS
Slovakia	2010: HBS	2010: HBS
Slovenia	2007–2012: LIS 2010: HBS	2007–2012: LIS 2010: HBS
Spain	2010: HBS	2010: HBS
Sweden	—	—
Switzerland	—	—
United Kingdom	2010: HBS	2010: HBS

Table B.4: National accounts sources: retained earnings

Country	Gross Value Added	Primary Income	Consumption of Fixed Capital	Private Share
Albania	1980–2017: regional average	1980–2017: regional average	1980–2017: regional average	1980–2017: regional average
Austria	1980–1994: extrapolated 1995–2017: Eurostat	1980–1994: extrapolated 1995–2017: Eurostat	1980–1994: extrapolated 1995–2017: Eurostat	1980–1994: extrapolated 1995–2017: OECD
Bosnia and Herzegovina	1980–2017: regional average	1980–2017: regional average	1980–2017: regional average	1980–2017: regional average
Belgium	1980–1984: extrapolated 1985–1994: UN SNA (200) 1995–2017: Eurostat	1980–1984: extrapolated 1985–1994: UN SNA (200) 1995–2017: Eurostat	1980–1984: extrapolated 1985–1994: UN SNA (200) 1995–2017: Eurostat	1980–1993: extrapolated 1994–2017: OECD
Bulgaria	1980–1994: extrapolated 1995–2016: Eurostat 2017: extrapolated	1980–1994: extrapolated 1995–2016: Eurostat 2017: extrapolated	1980–1994: extrapolated 1995–2016: Eurostat 2017: extrapolated	1980–2017: regional average
Switzerland	1980–1989: extrapolated 1990–1994: UN SNA (100) 1995–2016: Eurostat 2017: extrapolated	1980–1989: extrapolated 1990–1994: UN SNA (100) 1995–2016: Eurostat 2017: extrapolated	1980–1989: extrapolated 1990–1994: UN SNA (100) 1995–2016: Eurostat 2017: extrapolated	1980–2017: regional average
Cyprus	1980–1994: extrapolated 1995–2017: Eurostat	1980–1994: extrapolated 1995–2017: Eurostat	1980–1994: extrapolated 1995–2017: Eurostat	1980–2017: regional average
Czech Republic	1980–1992: extrapolated 1993–1994: UN SNA (300) 1995–2017: Eurostat	1980–1992: extrapolated 1993–1994: UN SNA (300) 1995–2017: Eurostat	1980–1992: extrapolated 1993–1994: UN SNA (300) 1995–2017: Eurostat	1980–1990: zero assumed 1991–1994: interpolated 1995–2017: OECD
East Germany	1980–2017: regional average	1980–2017: regional average	1980–2017: regional average	1980–2017: regional average
Germany	1980–1990: extrapolated 1991–1994: UN SNA (200) 1995–2017: Eurostat	1980–1990: extrapolated 1991–1994: UN SNA (200) 1995–2017: Eurostat	1980–1990: extrapolated 1991–1994: UN SNA (200) 1995–2017: Eurostat	1980–1990: extrapolated 1991–2017: OECD
Denmark	1980: extrapolated 1981–1994: UN SNA (200) 1995–2017: Eurostat	1980: extrapolated 1981–1994: UN SNA (200) 1995–2017: Eurostat	1980: extrapolated 1981–1994: UN SNA (200) 1995–2017: Eurostat	1980–1993: extrapolated 1994–2017: OECD

Estonia	1980–1993: extrapolated 1994: UN SNA (200) 1995–2017: Eurostat	1980–1993: extrapolated 1994: UN SNA (200) 1995–2017: Eurostat	1980–1993: extrapolated 1994: UN SNA (200) 1995–2017: Eurostat	1980–1990: zero assumed 1991–1994: interpolated 1995–2017: OECD
Spain	1980–1994: extrapolated 1995–1998: UN SNA (200) 1999–2017: Eurostat	1980–1994: extrapolated 1995–1998: UN SNA (200) 1999–2017: Eurostat	1980–1994: extrapolated 1995–1998: UN SNA (200) 1999–2017: Eurostat	1980–2017: OECD
Finland	1980–1994: UN SNA (500) 1995–2017: Eurostat	1980–1994: UN SNA (500) 1995–2017: Eurostat	1980–1994: UN SNA (500) 1995–2017: Eurostat	1980–1994: extrapolated 1995–2017: OECD
France	1980–2017: Eurostat	1980–2017: Eurostat	1980–2017: Eurostat	1980–1994: extrapolated 1995–2017: OECD
United Kingdom	1980–1988: extrapolated 1989: UN SNA (100) 1990–1994: UN SNA (200) 1995–2017: OECD	1980–1988: extrapolated 1989: UN SNA (100) 1990–1994: UN SNA (200) 1995–2017: OECD	1980–1988: extrapolated 1989: UN SNA (100) 1990–1994: UN SNA (200) 1995–2017: OECD	1980–1989: extrapolated 1990–2017: OECD
Greece	1980–1994: extrapolated 1995–2016: OECD 2017: extrapolated	1980–1994: extrapolated 1995–2016: OECD 2017: extrapolated	1980–1994: extrapolated 1995–2016: OECD 2017: extrapolated	1980–1994: extrapolated 1995–2017: OECD
Croatia	1980–1996: extrapolated 1997–2001: UN SNA (100) 2002–2012: Eurostat 2013–2014: UN SNA (1000) 2015–2017: extrapolated	1980–1996: extrapolated 1997–2001: UN SNA (100) 2002–2012: Eurostat 2013–2014: UN SNA (1000) 2015–2017: extrapolated	1980–1996: extrapolated 1997–2001: UN SNA (100) 2002–2012: Eurostat 2013–2014: UN SNA (1000) 2015–2017: extrapolated	1980–2017: regional average
Hungary	1980–1994: extrapolated 1995–2017: Eurostat	1980–1994: extrapolated 1995–2017: Eurostat	1980–1994: extrapolated 1995–2017: Eurostat	1980–1990: zero assumed 1991–2017: OECD
Ireland	1980–1994: extrapolated 1995–2017: Eurostat	1980–1994: extrapolated 1995–2017: Eurostat	1980–1994: extrapolated 1995–2017: Eurostat	1980–2000: extrapolated 2001–2017: OECD
Iceland	1980–1999: extrapolated 2000–2014: Eurostat 2015–2017: extrapolated	1980–1999: extrapolated 2000–2014: Eurostat 2015–2017: extrapolated	1980–1999: extrapolated 2000–2014: Eurostat 2015–2017: extrapolated	1980–2017: regional average
Italy	1980–1989: UN SNA (200) 1990–1994: UN SNA (300) 1995–2017: Eurostat	1980–1989: UN SNA (200) 1990–1994: UN SNA (300) 1995–2017: Eurostat	1980–1989: UN SNA (200) 1990–1994: UN SNA (300) 1995–2017: Eurostat	1980–1994: extrapolated 1995–2017: OECD

Kosovo	1990–2017: regional average	1990–2017: regional average	1990–2017: regional average	1990–2017: regional average
Lithuania	1980–1994: extrapolated 1995–2017: Eurostat	1980–1994: extrapolated 1995–2017: Eurostat	1980–1994: extrapolated 1995–2017: Eurostat	1980–1990: zero assumed 1991–1994: interpolated 1995–2017: OECD
Luxembourg	1980–1994: extrapolated 1995–2017: Eurostat	1980–1994: extrapolated 1995–2017: Eurostat	1980–1994: extrapolated 1995–2017: Eurostat	1980–1998: extrapolated 1999–2016: OECD 2017: extrapolated
Latvia	1980–1993: extrapolated 1994: UN SNA (100) 1995–2017: Eurostat	1980–1993: extrapolated 1994: UN SNA (100) 1995–2017: Eurostat	1980–1993: extrapolated 1994: UN SNA (100) 1995–2017: Eurostat	1980–1990: zero assumed 1991–1994: interpolated 1995–2017: OECD
Moldova	1980–1993: extrapolated 1994–2014: UN SNA (200) 2015–2017: extrapolated	1980–1993: extrapolated 1994–2014: UN SNA (200) 2015–2017: extrapolated	1980–2017: regional average	1980–2017: regional average
Montenegro	1980–2009: extrapolated 2010–2011: UN SNA (100) 2012–2017: extrapolated	1980–2017: regional average	1980–2017: regional average	1980–2017: regional average
Macedonia	1980–1996: extrapolated 1997–2002: UN SNA (300) 2003–2011: UN SNA (400) 2012–2017: extrapolated	1980–2017: regional average	1980–1996: extrapolated 1997–2002: UN SNA (300) 2003–2011: UN SNA (400) 2012–2017: extrapolated	1980–2017: regional average
Malta	1980–1999: extrapolated 2000: UN SNA (200) 2001–2004: UN SNA (300) 2005–2017: Eurostat	1980–2017: regional average	1980–1999: extrapolated 2000: UN SNA (200) 2001–2004: UN SNA (300) 2005–2017: Eurostat	1980–2017: regional average
Netherlands	1980–1994: UN SNA (300) 1995–2017: Eurostat	1980–1994: UN SNA (300) 1995–2017: Eurostat	1980–1994: UN SNA (300) 1995–2017: Eurostat	1980–1989: extrapolated 1990–2017: OECD
Norway	1980–2017: Eurostat	1980–2017: Eurostat	1980–2017: Eurostat	1980–1994: extrapolated 1995–2017: OECD
Poland	1980–1990: extrapolated 1991–1994: UN SNA (100) 1995–2016: Eurostat 2017: extrapolated	1980–1990: extrapolated 1991–1994: UN SNA (100) 1995–2016: Eurostat 2017: extrapolated	1980–1994: extrapolated 1995–2016: Eurostat 2017: extrapolated	1980–1990: zero assumed 1991–1994: interpolated 1995–2017: OECD

Portugal	1980–1994: extrapolated 1995–2017: Eurostat	1980–1994: extrapolated 1995–2017: Eurostat	1980–1994: extrapolated 1995–2017: Eurostat	1980–1994: extrapolated 1995–2017: OECD
Romania	1980–1994: extrapolated 1995–2016: Eurostat 2017: extrapolated	1980–1994: extrapolated 1995–2016: Eurostat 2017: extrapolated	1980–1994: extrapolated 1995–2016: Eurostat 2017: extrapolated	1980–2017: regional average
Serbia	1980–2009: extrapolated 2010–2011: UN SNA (300) 2012–2017: extrapolated	1980–2009: extrapolated 2010–2011: UN SNA (300) 2012–2017: extrapolated	1980–2009: extrapolated 2010–2011: UN SNA (300) 2012–2017: extrapolated	1980–2017: regional average
Sweden	1980–2017: Eurostat	1980–2017: Eurostat	1980–2017: Eurostat	1980–1994: extrapolated 1995–2017: OECD
Slovenia	1980–1994: extrapolated 1995–2017: Eurostat	1980–1994: extrapolated 1995–2017: Eurostat	1980–1994: extrapolated 1995–2017: Eurostat	1980–1990: zero assumed 1991–1994: interpolated 1995–2017: OECD
Slovakia	1980–1991: extrapolated 1992–1994: UN SNA (200) 1995–2017: Eurostat	1980–1992: extrapolated 1993–1994: UN SNA (200) 1995–2017: Eurostat	1980–1994: extrapolated 1995–2017: Eurostat	1980–1990: zero assumed 1991–1994: interpolated 1995–2017: OECD

Table B.5: National accounts sources: imputed rents

Country	Gross Value Added	Operating surplus	Consumption of Fixed Capital
Albania	1980–2017: regional average	1980–2017: regional average	1980–2017: regional average
Austria	1980–1994: extrapolated 1995–2017: Eurostat	1980–1994: extrapolated 1995–2017: Eurostat	1980–1994: extrapolated 1995–2017: Eurostat
Bosnia and Herzegovina	1980–2017: regional average	1980–2017: regional average	1980–2017: regional average
Belgium	1980–1984: extrapolated 1985–1994: UN SNA (200) 1995–2017: Eurostat	1980–1984: extrapolated 1985–1994: UN SNA (200) 1995–2017: Eurostat	1980–1984: extrapolated 1985–1994: UN SNA (200) 1995–2017: Eurostat
Bulgaria	1980–2017: regional average	1980–2017: regional average	1980–2017: regional average
Switzerland	1980–2017: regional average	1980–2017: regional average	1980–2017: regional average
Cyprus	1980–1994: extrapolated 1995–2017: Eurostat	1980–1994: extrapolated 1995–2017: Eurostat	1980–1994: extrapolated 1995–2017: Eurostat
Czech Republic	1980–1992: extrapolated 1993–1994: UN SNA (300) 1995–2017: Eurostat	1980–1992: extrapolated 1993–1994: UN SNA (300) 1995–2017: Eurostat	1980–1992: extrapolated 1993–1994: UN SNA (300) 1995–2017: Eurostat
East Germany	1980–2017: regional average	1980–2017: regional average	1980–2017: regional average
Germany	1980–1990: extrapolated 1991–1994: UN SNA (200) 1995–2017: Eurostat	1980–1990: extrapolated 1991–1994: UN SNA (200) 1995–2017: Eurostat	1980–1990: extrapolated 1991–1994: UN SNA (200) 1995–2017: Eurostat
Denmark	1980: extrapolated 1981–1994: UN SNA (200) 1995–2017: Eurostat	1980–1989: extrapolated 1990–1994: UN SNA (200) 1995–2017: Eurostat	1980: extrapolated 1981–1994: UN SNA (200) 1995–2017: Eurostat
Estonia	1980–2017: regional average	1980–2017: regional average	1980–2017: regional average
Spain	1980–1994: extrapolated 1995–1998: UN SNA (200) 1999–2017: Eurostat	1980–1994: extrapolated 1995–1998: UN SNA (200) 1999–2017: Eurostat	1980–1994: extrapolated 1995–1998: UN SNA (200) 1999–2017: Eurostat

Finland	1980–1994: UN SNA (500) 1995–2017: Eurostat	1980–1994: UN SNA (500) 1995–2017: Eurostat	1980–1994: UN SNA (500) 1995–2017: Eurostat
France	1980–2017: Eurostat	1980–2017: Eurostat	1980–2017: Eurostat
United Kingdom	1980–1988: extrapolated 1989: UN SNA (100) 1990–1994: UN SNA (200) 1995–2017: OECD	1980–1989: extrapolated 1990–1994: UN SNA (200) 1995–2017: OECD	1980–1988: extrapolated 1989: UN SNA (100) 1990–1994: UN SNA (200) 1995–2017: OECD
Greece	1980–1994: extrapolated 1995–2016: OECD 2017: extrapolated	1980–1994: extrapolated 1995–2016: OECD 2017: extrapolated	1980–1994: extrapolated 1995–2016: OECD 2017: extrapolated
Croatia	1980–1996: extrapolated 1997–2001: UN SNA (100) 2002–2012: Eurostat 2013–2017: extrapolated	1980–1996: extrapolated 1997–2001: UN SNA (100) 2002–2012: Eurostat 2013–2017: extrapolated	1980–2001: extrapolated 2002–2012: Eurostat 2013–2017: extrapolated
Hungary	1980–1994: extrapolated 1995–2017: Eurostat	1980–1994: extrapolated 1995–2017: Eurostat	1980–1994: extrapolated 1995–2017: Eurostat
Ireland	1980–1994: extrapolated 1995–2017: Eurostat	1980–1994: extrapolated 1995–2017: Eurostat	1980–1994: extrapolated 1995–2017: Eurostat
Iceland	1980–2004: extrapolated 2005–2014: Eurostat 2015–2017: extrapolated	1980–2004: extrapolated 2005–2014: Eurostat 2015–2017: extrapolated	1980–2004: extrapolated 2005–2014: Eurostat 2015–2017: extrapolated
Italy	1980–1989: UN SNA (200) 1990–1994: UN SNA (300) 1995–2017: Eurostat	1980–1989: UN SNA (200) 1990–1994: UN SNA (300) 1995–2017: Eurostat	1980–1989: UN SNA (200) 1990–1994: UN SNA (300) 1995–2017: Eurostat
Kosovo	1990–2017: regional average	1990–2017: regional average	1990–2017: regional average
Lithuania	1980–1994: extrapolated 1995–2017: Eurostat	1980–1994: extrapolated 1995–2017: Eurostat	1980–1994: extrapolated 1995–2017: Eurostat
Luxembourg	1980–1994: extrapolated 1995–2017: Eurostat	1980–1994: extrapolated 1995–2017: Eurostat	1980–1994: extrapolated 1995–2017: Eurostat
Latvia	1980–1994: extrapolated 1995–2017: Eurostat	1980–1994: extrapolated 1995–2017: Eurostat	1980–1994: extrapolated 1995–2017: Eurostat

Moldova	1980–2017: regional average	1980–2017: regional average	1980–2017: regional average
Montenegro	1980–2009: extrapolated 2010–2011: UN SNA (100) 2012–2017: extrapolated	1980–2017: regional average	1980–2017: regional average
Macedonia	1980–1996: extrapolated 1997–2002: UN SNA (300) 2003–2011: UN SNA (400) 2012–2017: extrapolated	1980–1996: extrapolated 1997–2002: UN SNA (300) 2003–2011: UN SNA (400) 2012–2017: extrapolated	1980–2017: regional average
Malta	1980–1999: extrapolated 2000–2004: UN SNA (200) 2005–2017: Eurostat	1980–1999: extrapolated 2000–2004: UN SNA (200) 2005–2017: Eurostat	1980–1999: extrapolated 2000–2004: UN SNA (200) 2005–2017: Eurostat
Netherlands	1980–2017: regional average	1980–2017: regional average	1980–2017: regional average
Norway	1980–2017: Eurostat	1980–2017: Eurostat	1980–2017: Eurostat
Poland	1980–1994: extrapolated 1995–2016: Eurostat 2017: extrapolated	1980–1994: extrapolated 1995–2016: Eurostat 2017: extrapolated	1980–1994: extrapolated 1995–2016: Eurostat 2017: extrapolated
Portugal	1980–1994: extrapolated 1995–2017: Eurostat	1980–1994: extrapolated 1995–2017: Eurostat	1980–1994: extrapolated 1995–2017: Eurostat
Romania	1980–2003: extrapolated 2004–2015: UN SNA (1000) 2016–2017: extrapolated	1980–2003: extrapolated 2004–2013: UN SNA (1000) 2014–2017: extrapolated	1980–2003: extrapolated 2004–2014: UN SNA (1000) 2015–2017: extrapolated
Serbia	1980–1996: extrapolated 1997–2011: UN SNA (300) 2012–2017: extrapolated	1980–1996: extrapolated 1997–2011: UN SNA (300) 2012–2017: extrapolated	1980–1996: extrapolated 1997–2011: UN SNA (300) 2012–2017: extrapolated
Sweden	1980–2017: Eurostat	1980–2017: Eurostat	1980–2017: Eurostat
Slovenia	1980–1994: extrapolated 1995–2017: Eurostat	1980–1994: extrapolated 1995–2017: Eurostat	1980–1994: extrapolated 1995–2017: Eurostat
Slovakia	1980–1994: extrapolated 1995–2017: Eurostat	1980–1994: extrapolated 1995–2017: Eurostat	1980–1994: extrapolated 1995–2017: Eurostat

C   Country-specific adjustments

C.1   East Germany

Our data for the distribution of East German income comes from a yearly publication of official statistics on the economy of East Germany (*Statistisches Jahrbuch der deutschen Demokratischen Republik*). The 1990 edition of that publication provides estimates of the population by income bracket and by type of household over the period 1980–1990.

We interpolate the distribution for each type of household (Blanchet et al., 2017), and then merge them into a single distribution after having multiplied the number of observations corresponding to each type of household by the number of adults in the corresponding type of household. That way, we get a distribution for equal-split adults.

That data relate to the distribution of post-tax income only. As an approximation, we use the same distribution for pre-tax income. The distinction between pre-tax and post-tax income in socialist economies was indeed less salient than it is today: see Bukowski and Novokmet (2017) for a detailed discussion of that issue in the case of Poland.

C.2   Estonia

We estimate top income shares for Estonia by exploiting tabulated tax returns from various reports of the Tax and Customs Board. Tabulations are available from 2002 to 2017. For each year, they provide information on the total number of taxpayers and total taxable income for various income brackets. The income tax in Estonia is a flat tax, collected on individual earnings. It applies to most sources of income (income from work, interest income, royalties, capital gains, dividends...) which are taxed on a gross basis.

We use these tabulations to estimate top income shares by matching them with survey microdata from EU-SILC in the following way. We first use generalized Pareto interpolation techniques (Blanchet et al., 2017) to compute thresholds and average incomes for various quantiles of the fiscal income distribution. We then correct the EU-SILC survey by using the Blanchet et al. (2018) method (BFM), which exploits the fiscal data to reweigh survey observations so that top incomes are properly represented (see methodology). Since the BFM method preserves the survey microdata, and in particular other covariates, it allows us to directly account for the fact that (1) the unit of observation in the tax data is the individual, not the equal-split adult and (2) taxable income

Figure C.1: Top 10% income share in Estonia:
survey data vs. fiscal data vs. corrected survey
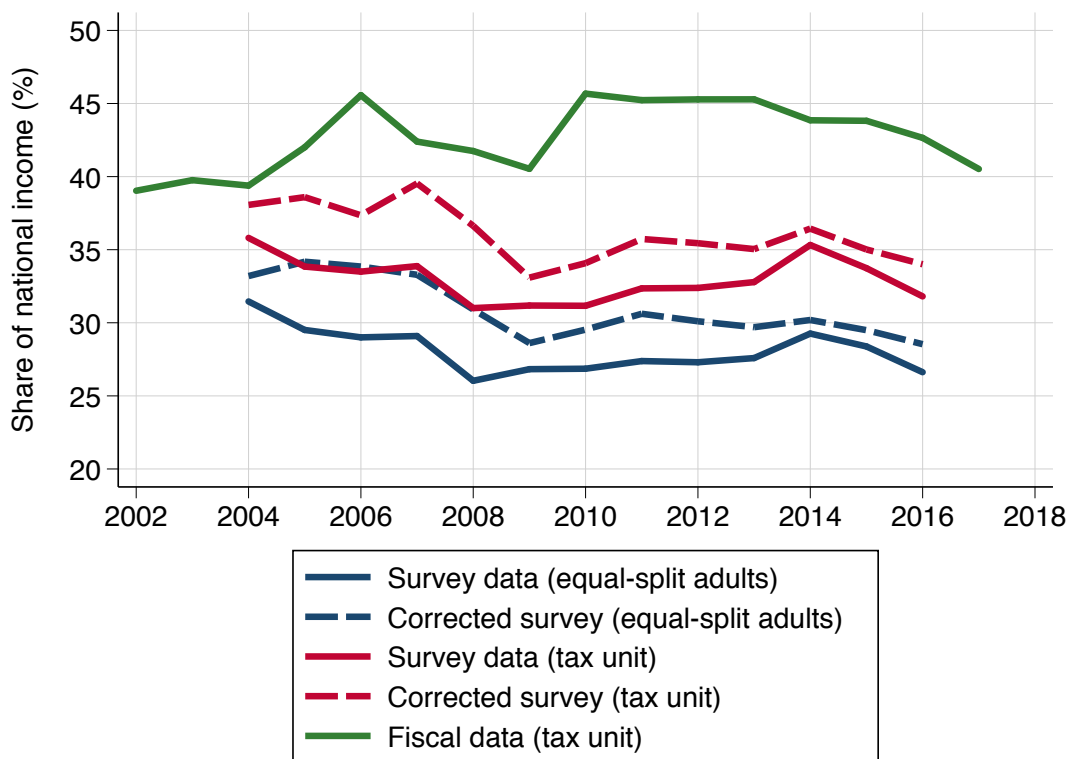
includes gross components which must be deducted to obtain pre-tax income estimates. We can therefore directly compute the share of pre-tax income accruing to top earners in the corrected survey by changing the unit of observation and the income concept *after* having reweighed survey observations.

Figure C.1 compares the top 10% income share estimated from survey data, fiscal data and corrected survey data. Inequality is highest when measured directly from tax tabulations since many individuals have zero taxable income, in part due to the possibility to deduct some expenditures. Correcting the survey for the under-representation of top incomes increases significantly the top 10% income share, even if the overall trend is not substantially affected. Unsurprisingly, inequality is lower between equal-split adults than between tax units (here, individuals) since the former does not account for within-household heterogeneity. Our final estimates show a decrease in the top 10% income share from 35% in 2004 to 30% in 2016. Since survey microdata is not available for

2002, 2003 and 2017, we extrapolate top income shares to these years by using the average ratio of pre-tax income between fiscal data series and corrected survey estimates over the 2004-2016 period, by generalized percentile.

C.3   Greece

Our data for Greece comes from Chrissis and Livada (2014), to which we perform some corrections to adjust the level of inequality following more recent work and correspondence with the authors. These series are still preliminary and will be further updated in the coming months.

C.4   Iceland

For Iceland, we use directly the tax data that is available online since 1990 from Statistics Iceland. Given that Iceland has had a flat — or nearly flat — comprehensive income tax over the entire period, the entire distribution is covered, so we use it to directly compute top income shares.

C.5   Italy

Top income shares for Italy are available from the World Inequality Database from 1980 to 2009 thanks to previous work done by Alvaredo and Pisano (2010). We update their series by collecting tax tabulations available from the data portal of the Italian ministry of Finance.[1] These tabulations are available over the 2008-2016 period and provide information on the number of taxpayers and total taxable income for different income brackets.

The income tax in Italy applies to individuals and includes most income components on a gross basis, except for interest income which is not taxed. We compute top income shares over the 2008-2016 period by using the exact same methodology as the one used for Estonia (see above). That is, we use the method developed by Blanchet et al. (2018) to reweigh the survey and compute income shares which are both representative of top incomes and consistent with the benchmark income concept and population unit used in this paper.

Figure C.2 compares the top 10% income share estimated from survey data, fiscal data and corrected survey data. Tax data leads to increasing inequality less than in Estonia, perhaps because some components of capital income are not reported in the tabulated tax returns. For the two years for

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[1]See http://www1.finanze.gov.it/finanze3/pagina_dichiarazioni/dichiarazioni.php.

Figure C.2: Top 10% income share in Italy:
survey data vs. fiscal data vs. corrected survey
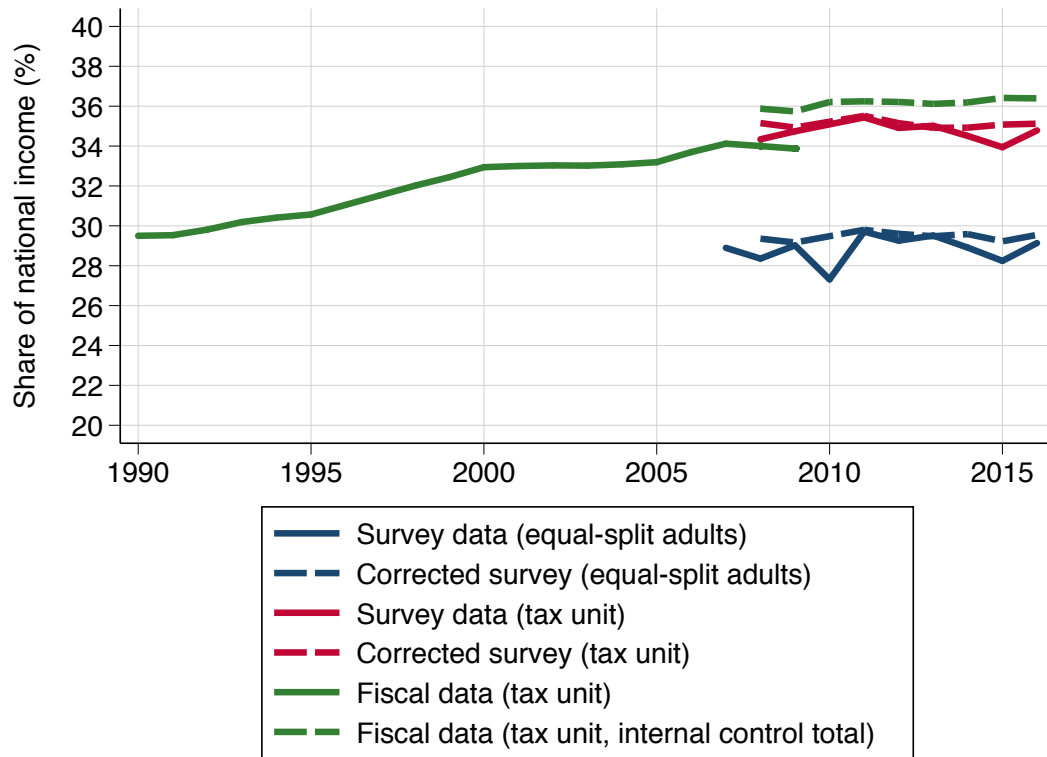
which we can compare our estimates with that of Alvaredo and Pisano (2010), 2008 and 2009, the top 10% income shares coincide almost perfectly, which suggests that both methods are alternative and complementary ways of obtaining robust estimates of the evolution of top incomes. Changing the welfare concept from individual taxable income to pre-tax income per adult decreased the top 10% share by about 4 percentage points. We use this relationship to correct conceptual discrepancies in Italian top income shares over the 1980-2009 period. For each generalized percentile among the top decile, we compute the ratio of average taxable individual income to pre-tax income per adult over the 2009-2016 period. We then use the average ratio over this period to harmonized top income shares series in previous years.

Appendix

Figure C.3: Top 10% income share in Luxembourg:
survey data vs. fiscal data vs. corrected survey

(a) Correction for the two years with tax data

(b) Extrapolation of correction to the rest of the series
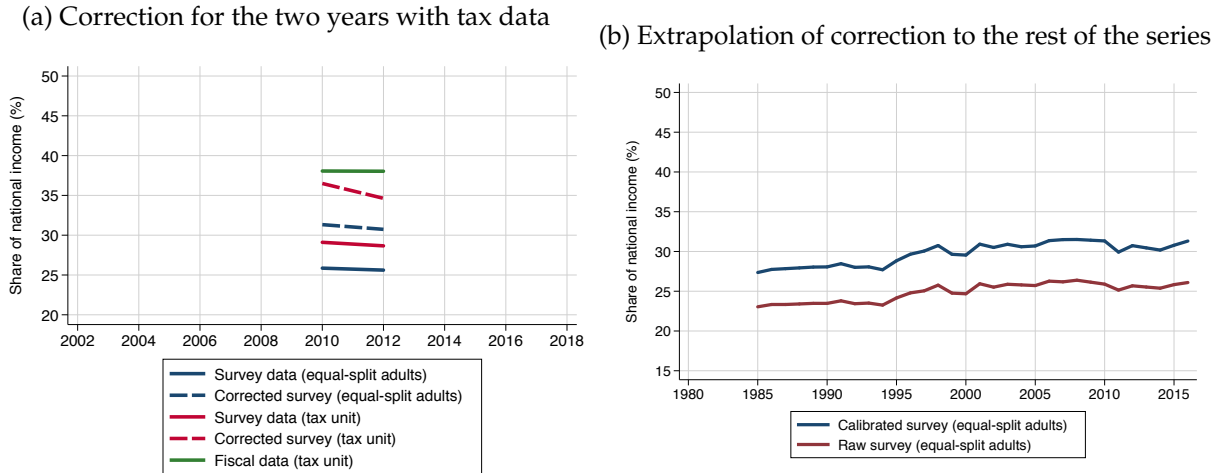
C.6   Luxembourg

For Luxembourg, we use two years of tax data that were published as part of reports by the Conseil Économique et Social (*Analyse des données fiscales au Luxembourg, 2015* and *Analyse des données fiscales au Luxembourg, 2018*). These contain detailed tabulations that cover the income of resident households for two years, 2010 and 2012.

We interpolate these two distributions using generalized Pareto interpolation (Blanchet et al., 2017) and then correct the EU-SILC data in the two corresponding years using the method of Blanchet et al. (2018). The correction is very similar for both years, with the top 10% share increasing by roughly 5pp (see figure C.3a). We then extrapolate that correction to previous years by extrapolating the correction coefficient by percentile that we obtained from the tax data correction (see figure C.3b).

C.7   Portugal

Top income shares for Portugal are available from the World Inequality Database from 1980 to 2009 thanks to previous work done by Alvaredo (2009). We update these series by collecting tax tabulations available from the data portal Pordata.[2] These tabulations are available over the 1990-2016 period and provide information on the number of taxpayers and total taxable income for

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[2]See `https://www.pordata.pt`.

Figure C.4: Top 10% income share in Portugal:
survey data vs. fiscal data vs. corrected survey
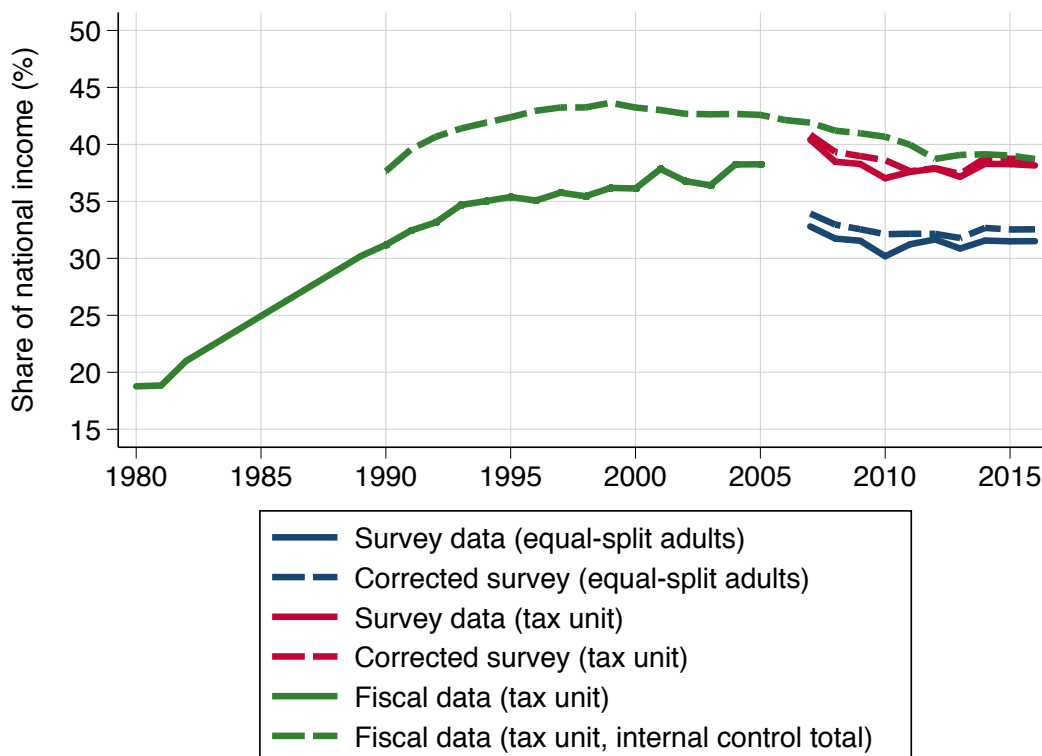
different income brackets.

The income tax in Portugal applies to most income components on a gross basis, except for most capital gains and all interest income which are not taxed. The unit to which the tax data relate is the married couple, or single adult. We compute top income shares over the 2007-2016 period by using the exact same methodology as the one used for Estonia (see above). That is, we use the method developed by Blanchet et al. (2018) to reweigh the survey and compute income shares which are both representative of top incomes and consistent with the benchmark income concept and population unit used in this paper. In the case of Portugal, since tax units are either individuals or married couples, we first match couples in the EU-SILC survey and aggregate their incomes. We are then able to use tax tabulations to correct for the under-representation of "top tax units" in the survey.

Figure C.4 compares the top 10% income share estimated from survey data, fiscal data and corrected

Appendix

survey data. Using tax data leads to only moderately higher inequality, perhaps because some components of capital income are not taxed. While there is a gap in the Alvaredo (2009) series and our series between 2005 and 2007, comparing the two estimates suggests that using the BFM methodology leads to a slightly higher top 10% income share, which might be due to the income control being too high in previous estimates.

We use our estimates to correct conceptual discrepancies in Portuguese top income shares in previous years. First, we extrapolate our series back to 2005 by using the trends observed in the fiscal data (with internal income control) over the 2005-2007 period. For each generalized percentile among the top decile, we then use the ratio of average taxable income per tax unit to pre-tax income per adult in 2005 to harmonize top income shares before 2005.

D   Methodology and main results by country

The following figures show the sources available, main methodological steps and key results (top 10% and bottom 50% income shares, total growth by income group) for each of the 38 countries covered in this paper. For detailed data series, please refer to the website of the World Inequality Database (`http://wid.world`).

D.1   Albania

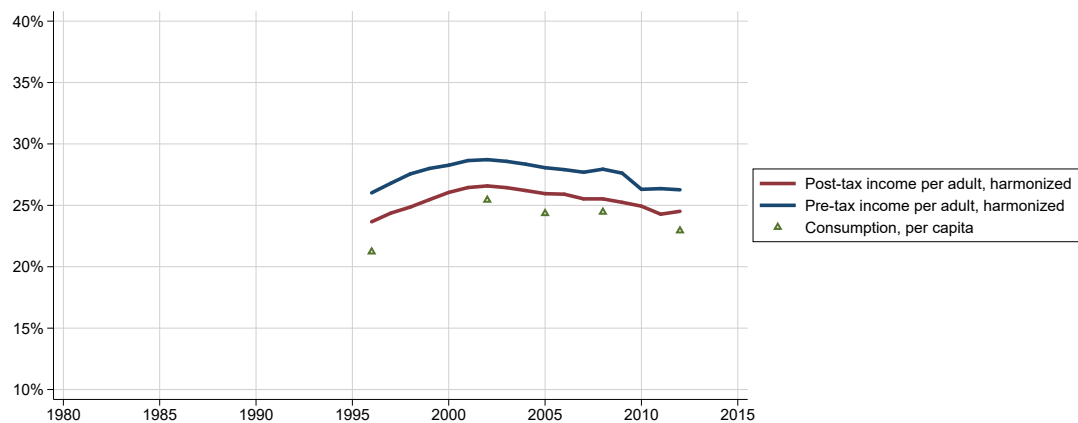Table D.6: Albania: sources available by year

Year	Survey (tabulated)	Survey (microdata)	Tax data	Undistributed profits	Imputed rents
1980					
1981					
1982					
1983					
1984					
1985					
1986					
1987					
1988					
1989					
1990					
1991					
1992					
1993					
1994					
1995					
1996	x				
1997					
1998					
1999					
2000					
2001					
2002	x				
2003					
2004					
2005	x				
2006					
2007					
2008	x				
2009					
2010					
2011					
2012	x				
2013					
2014					
2015					
2016					
2017					

Source: authors' computations.
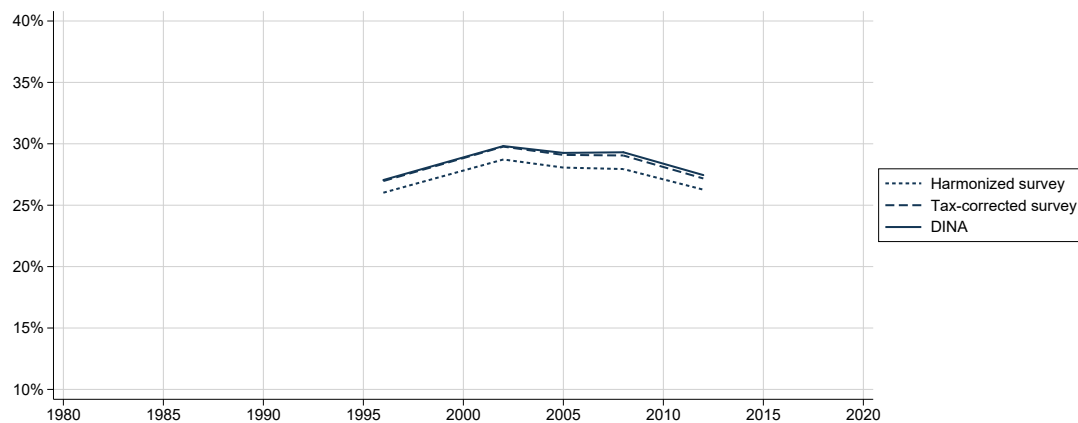
Figure D.5: Albania: from tabulated surveys to distributional national accounts

(a) Top 10% income share: tabulated vs. harmonized surveys

(b) Top 10% pre-tax income share: harmonized surveys vs. DINA

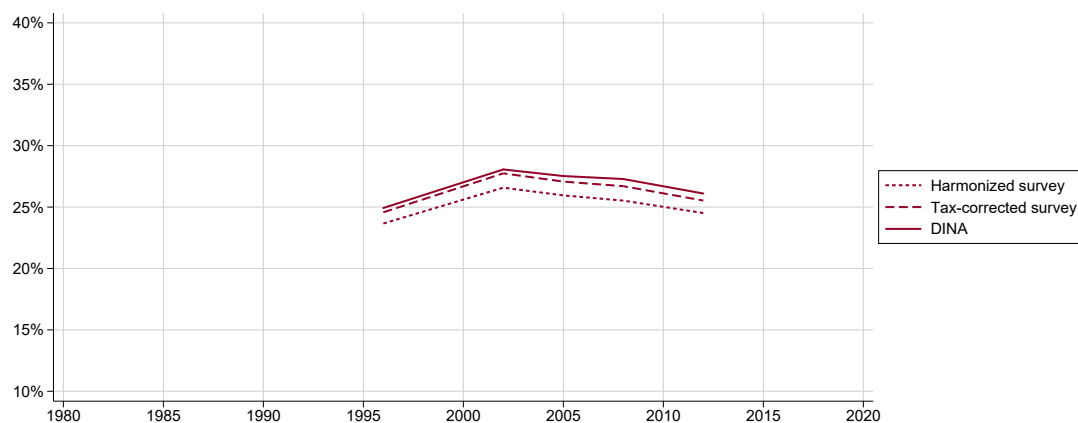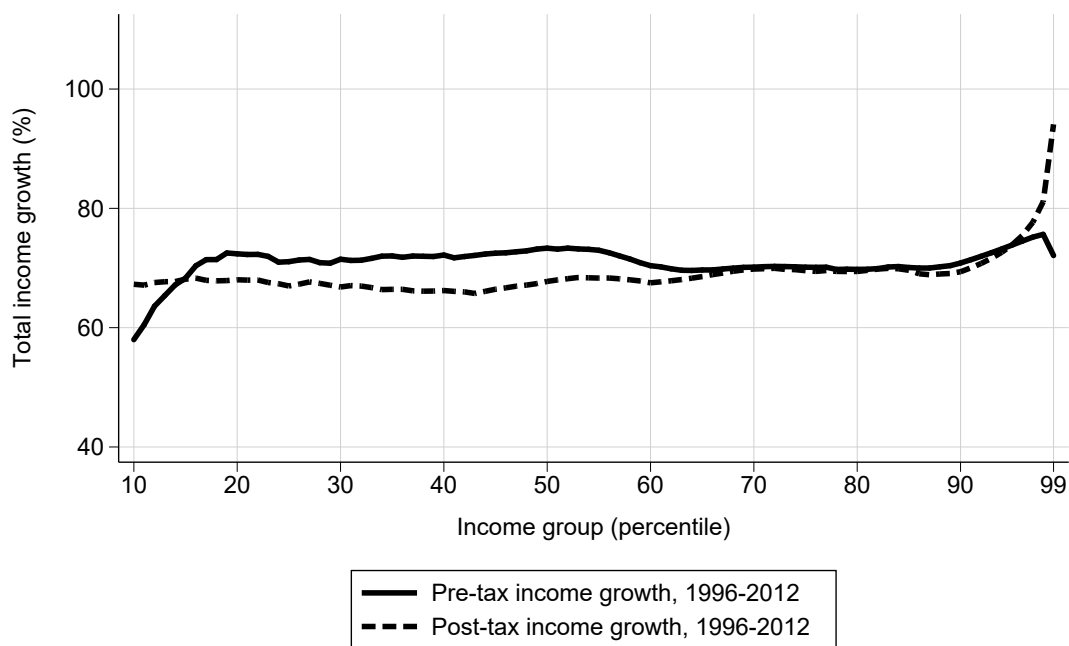(c) Top 10% post-tax income share: harmonized surveys vs. DINA

Figure D.6: Albania: main results

(a) Bottom 50% vs. Top 10% income shares

(b) Growth incidence curve

D.2   Austria

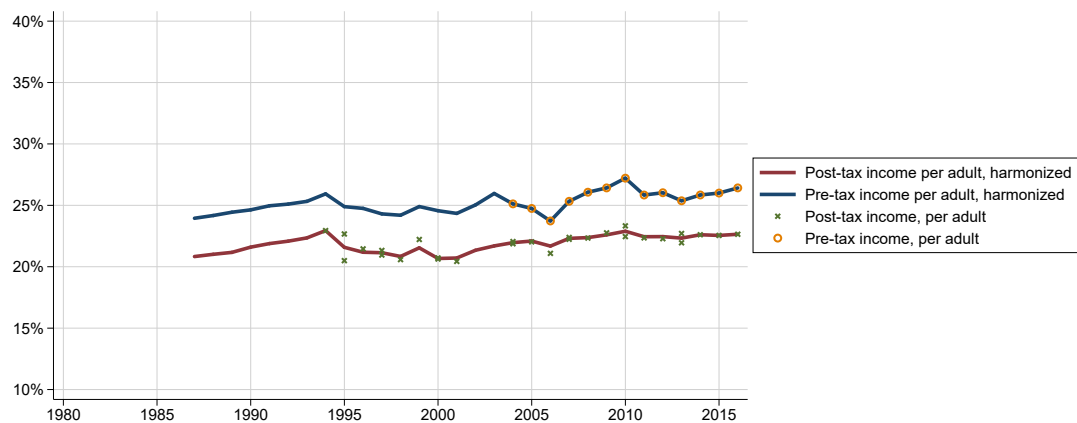Table D.7: Austria: sources available by year

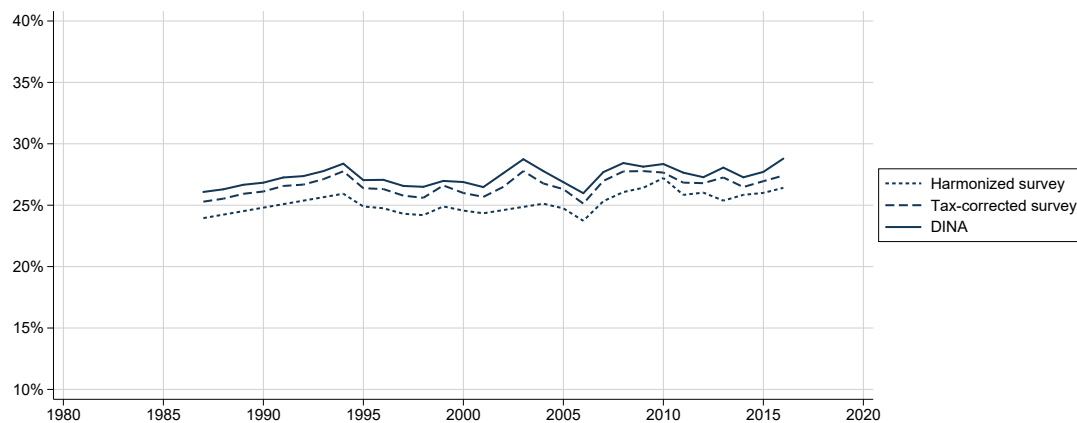| Year	Survey (tabulated)	Survey (microdata)	Tax data	Undistributed profits	Imputed rents
1980					
1981					
1982					
1983					
1984					
1985					
1986					
1987		x			
1988					
1989					
1990					
1991					
1992					
1993					
1994		x			
1995		x		x	x
1996		x		x	x
1997		x		x	x
1998		x		x	x
1999		x		x	x
2000		x		x	x
2001		x		x	x
2002				x	x
2003				x	x
2004		x		x	x
2005		x		x	x
2006		x		x	x
2007		x		x	x
2008		x		x	x
2009		x		x	x
2010		x		x	x
2011		x		x	x
2012		x		x	x
2013		x		x	x
2014		x		x	x
2015		x		x	x
2016		x		x	x
2017				x	x

Source: authors' computations.

Figure D.7: Austria: from tabulated surveys to distributional national accounts

(a) Top 10% income share: tabulated vs. harmonized surveys

(b) Top 10% pre-tax income share: harmonized surveys vs. DINA

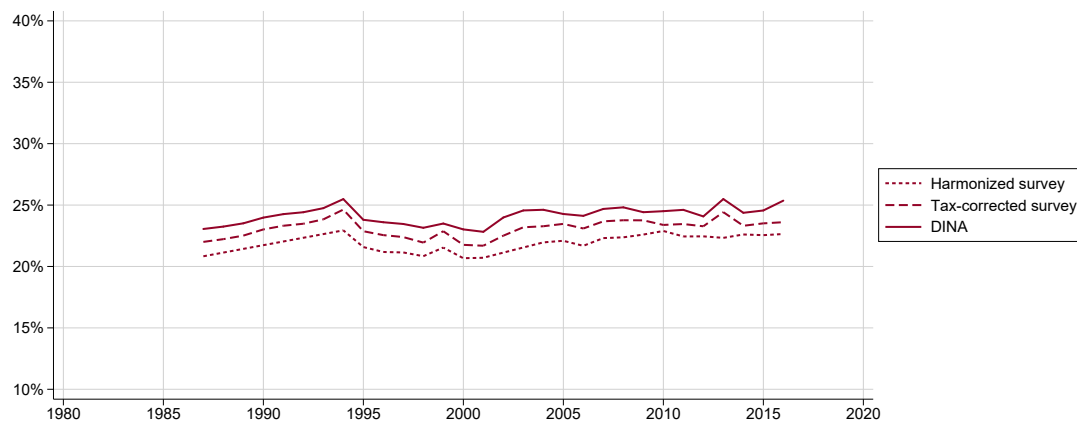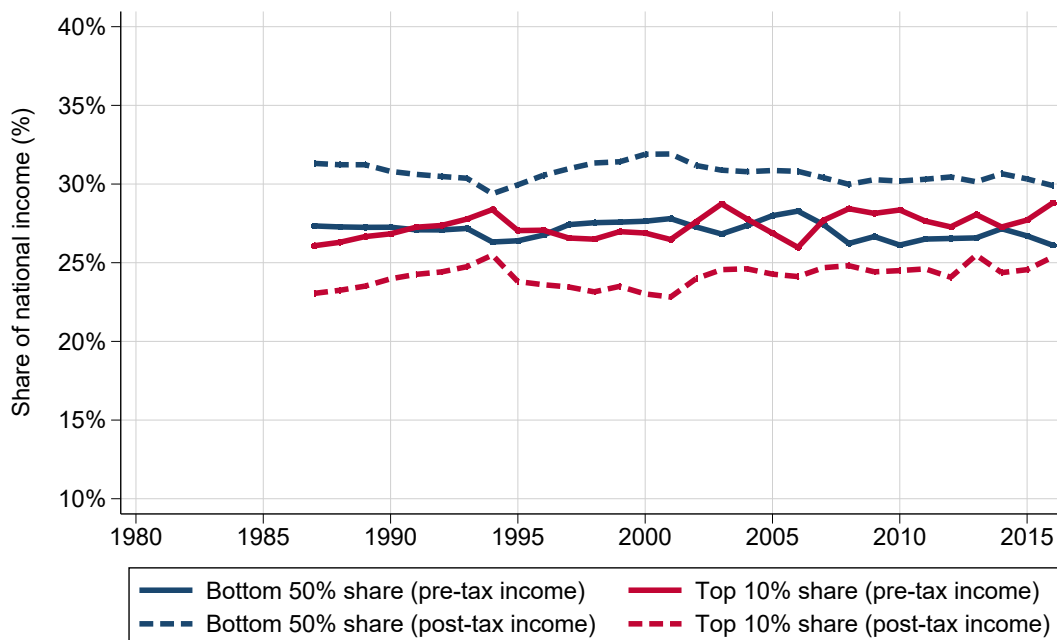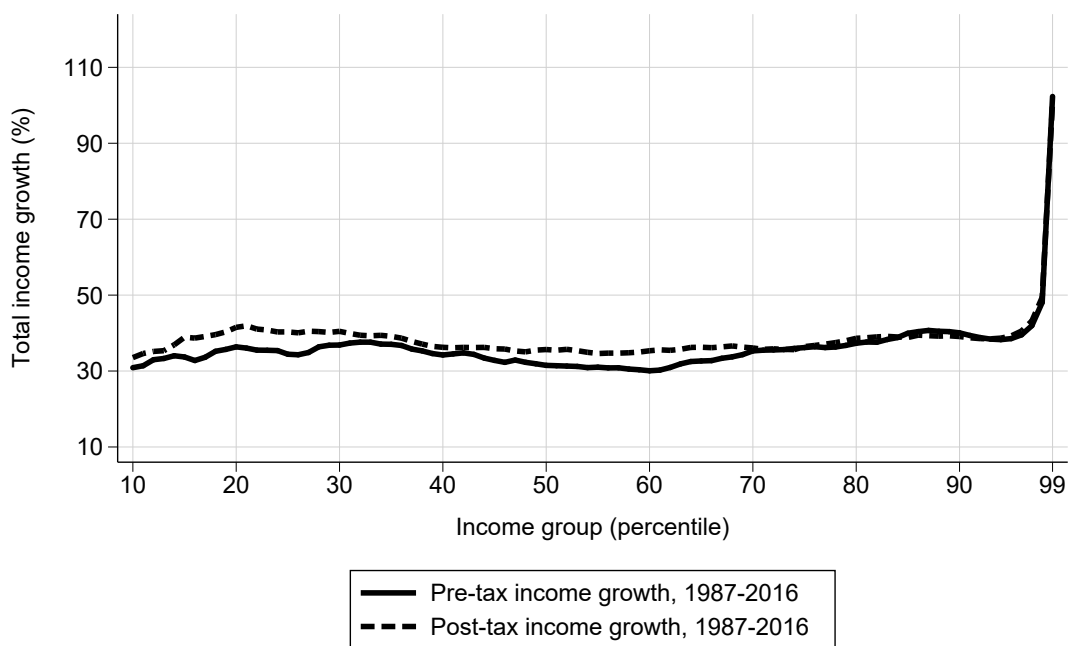(c) Top 10% post-tax income share: harmonized surveys vs. DINA

Figure D.8: Austria: main results

(a) Bottom 50% vs. Top 10% income shares

(b) Growth incidence curve

D.3 Belgium

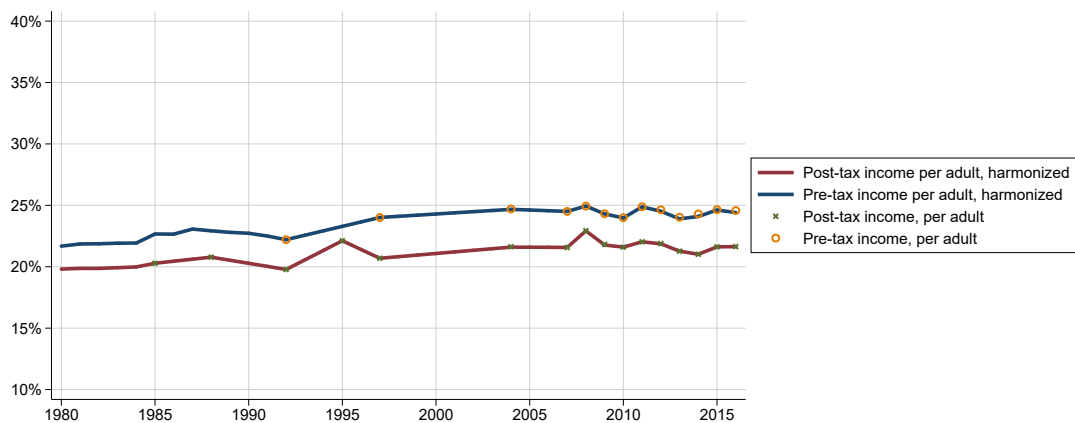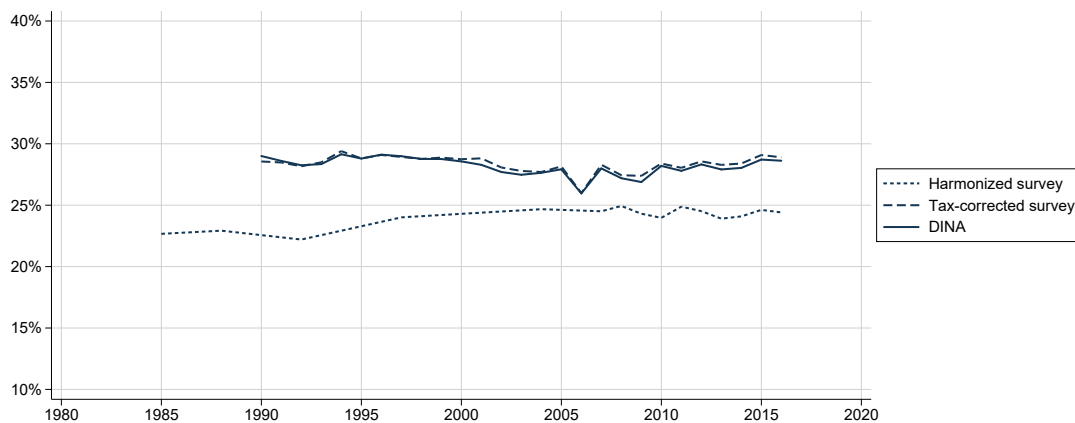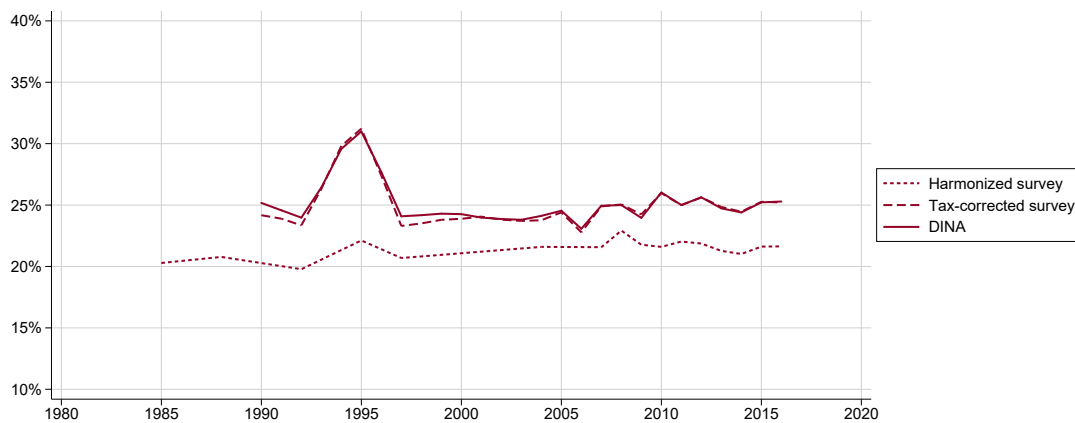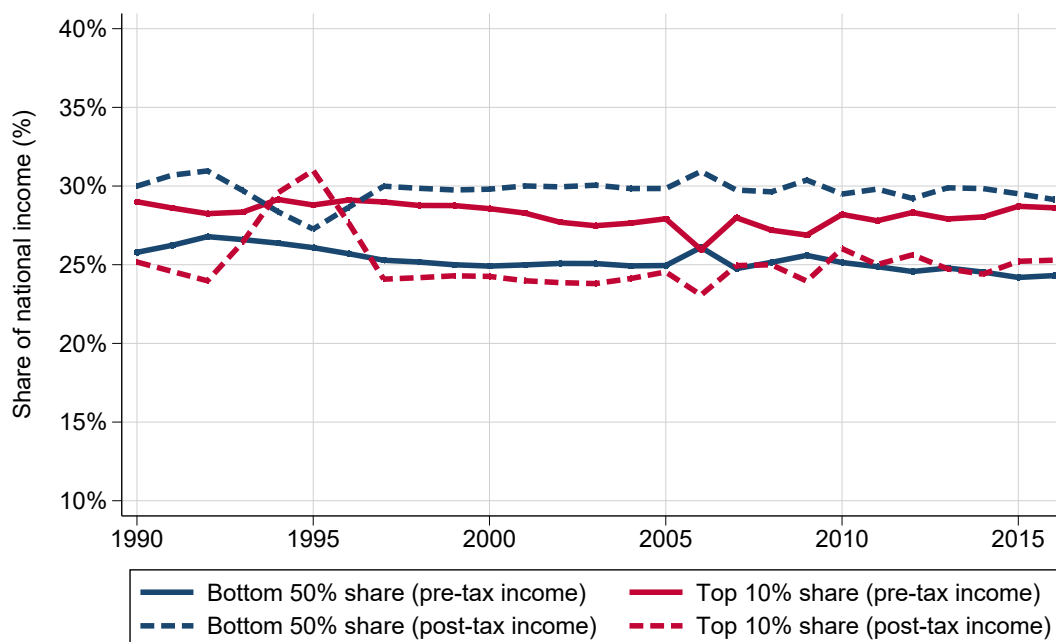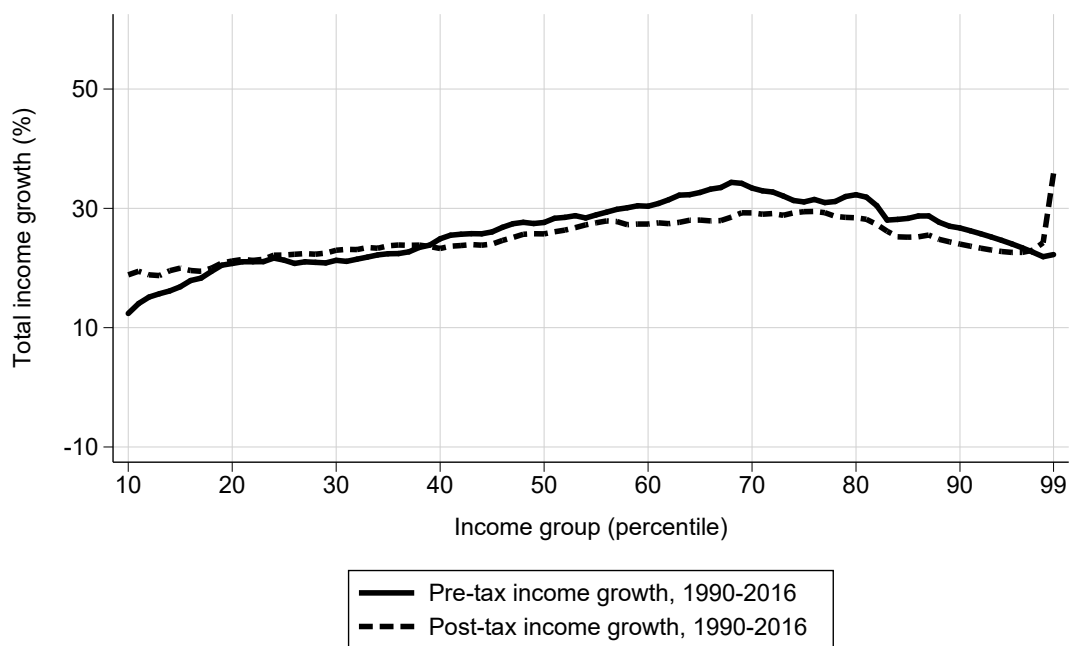Table D.8: Belgium: sources available by year

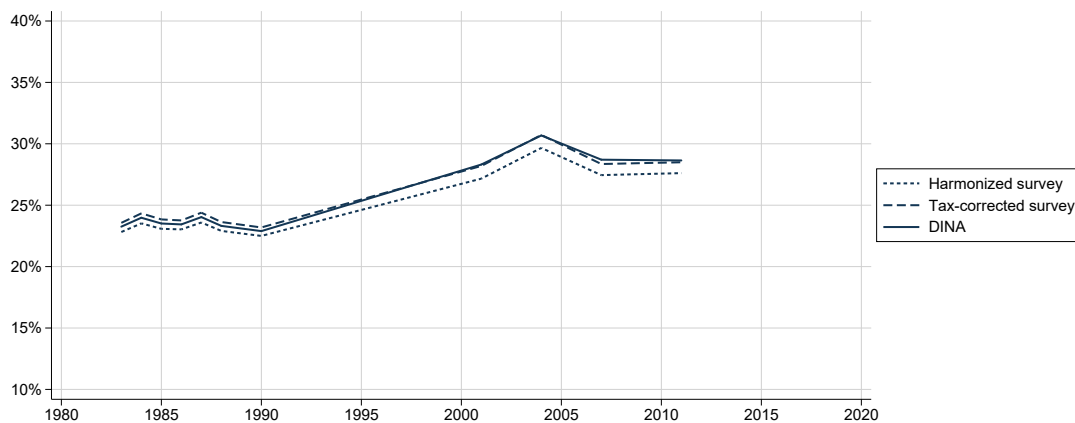| Year	Survey (tabulated)	Survey (microdata)	Tax data	Undistributed profits	Imputed rents
1980					
1981					
1982					
1983					
1984					
1985		x			x
1986					x
1987					x
1988		x			x
1989					x
1990					x
1991					x
1992		x			x
1993					x
1994				x	x
1995		x		x	x
1996				x	x
1997		x		x	x
1998				x	x
1999				x	x
2000				x	x
2001				x	x
2002				x	x
2003				x	x
2004		x		x	x
2005				x	x
2006				x	x
2007		x		x	x
2008		x		x	x
2009		x		x	x
2010		x		x	x
2011		x		x	x
2012		x		x	x
2013		x		x	x
2014		x		x	x
2015		x		x	x
2016		x		x	x
2017				x	x

Source: authors' computations.

Figure D.9: Belgium: from tabulated surveys to distributional national accounts

(a) Top 10% income share: tabulated vs. harmonized surveys

(b) Top 10% pre-tax income share: harmonized surveys vs. DINA

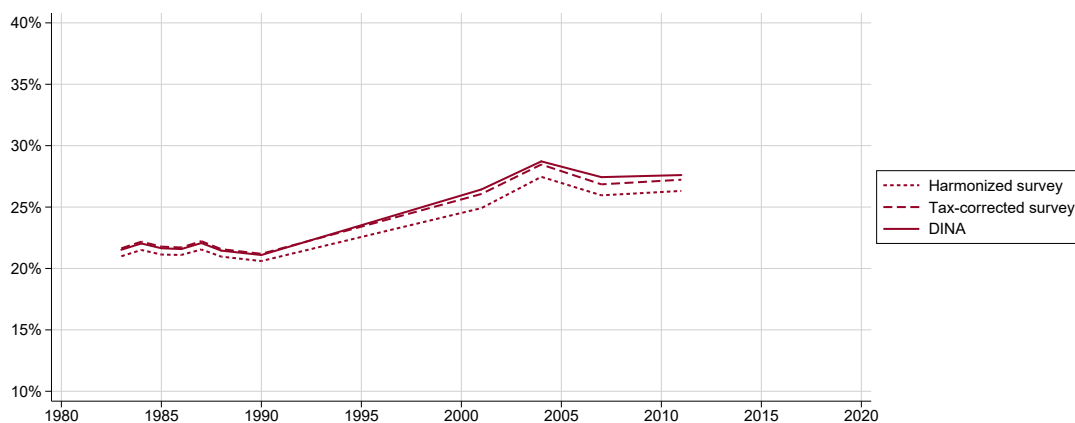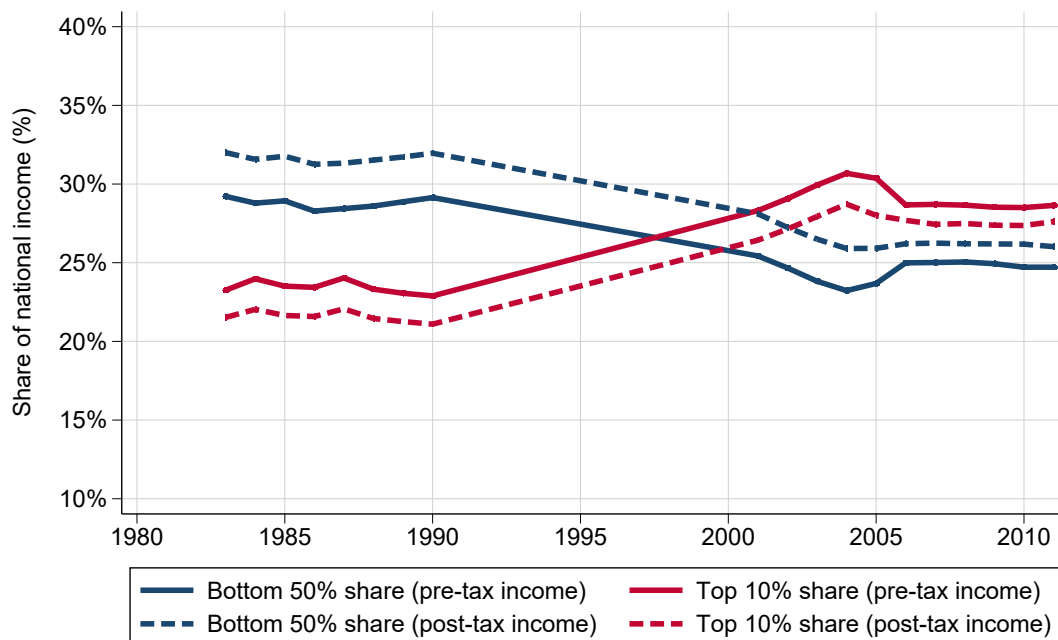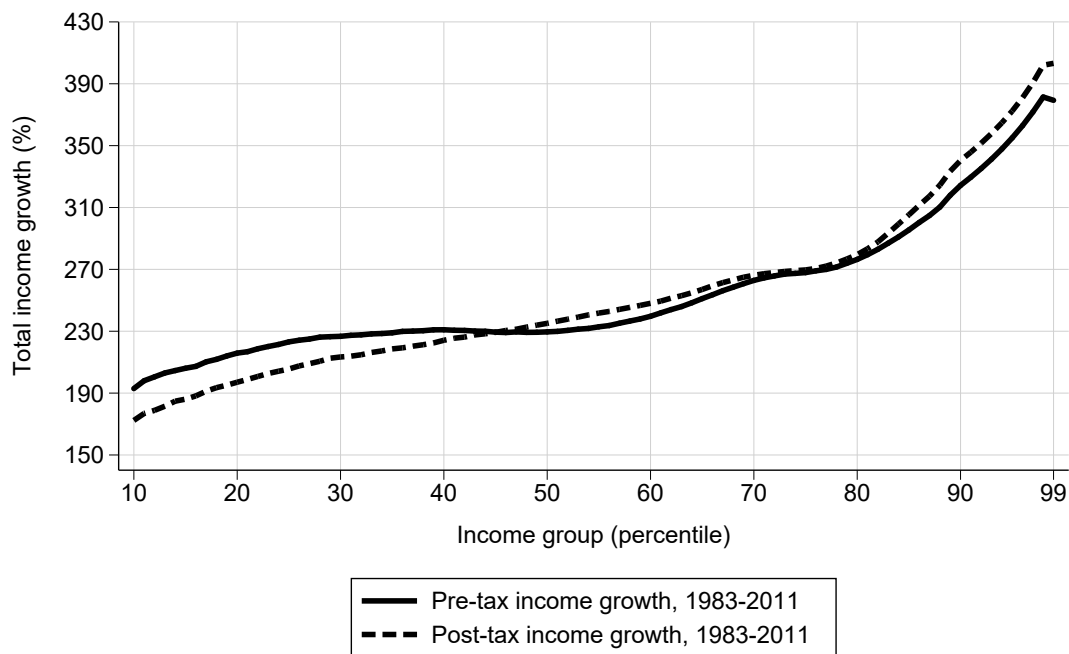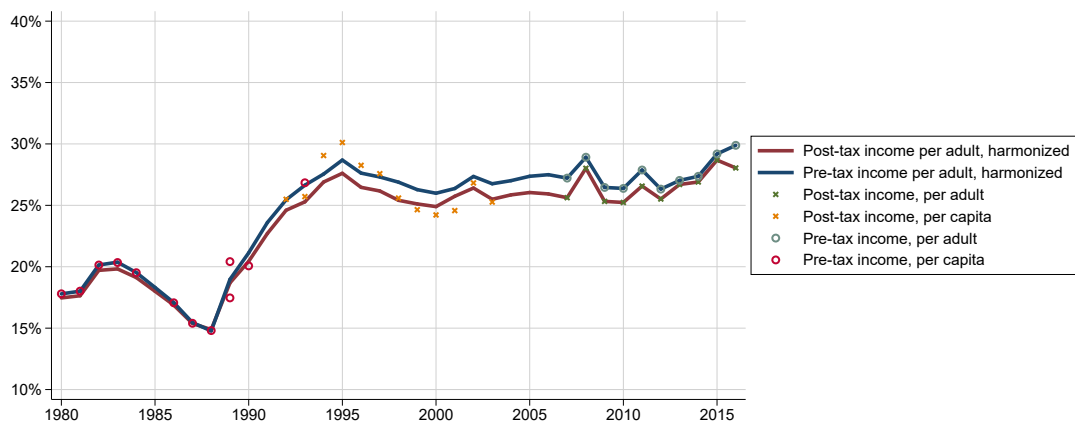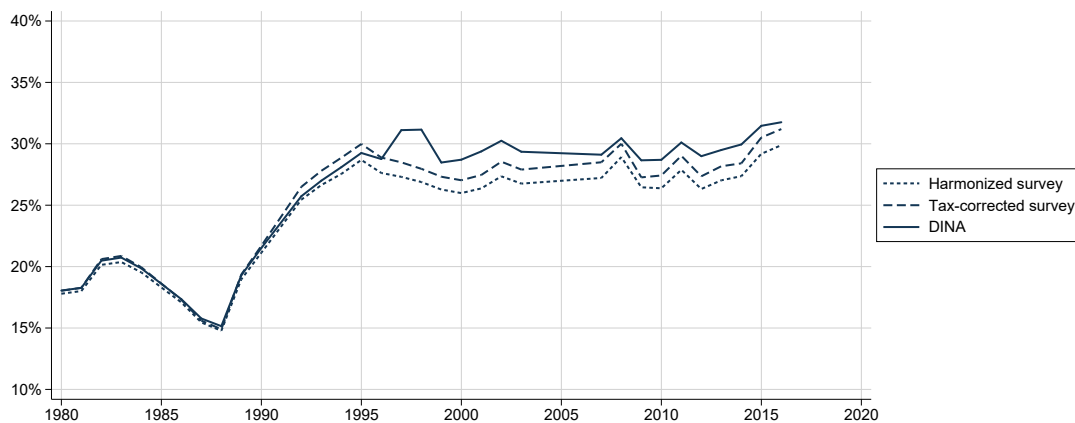(c) Top 10% post-tax income share: harmonized surveys vs. DINA

Figure D.10: Belgium: main results

(a) Bottom 50% vs. Top 10% income shares

(b) Growth incidence curve

D.4 Bosnia And Herzegovina

Table D.9: Bosnia And Herzegovina: sources available by year

Year	Survey (tabulated)	Survey (microdata)	Tax data	Undistributed profits	Imputed rents
1980					
1981					
1982					
1983	x				
1984	x				
1985	x				
1986	x				
1987	x				
1988	x				
1989					
1990	x				
1991					
1992					
1993					
1994					
1995					
1996					
1997					
1998					
1999					
2000					
2001	x				
2002					
2003					
2004	x				
2005					
2006					
2007	x				
2008					
2009					
2010					
2011	x				
2012					
2013					
2014					
2015					
2016					
2017					

Source: authors' computations.

Figure D.11: Bosnia And Herzegovina: from tabulated surveys to distributional national accounts

(a) Top 10% income share: tabulated vs. harmonized surveys
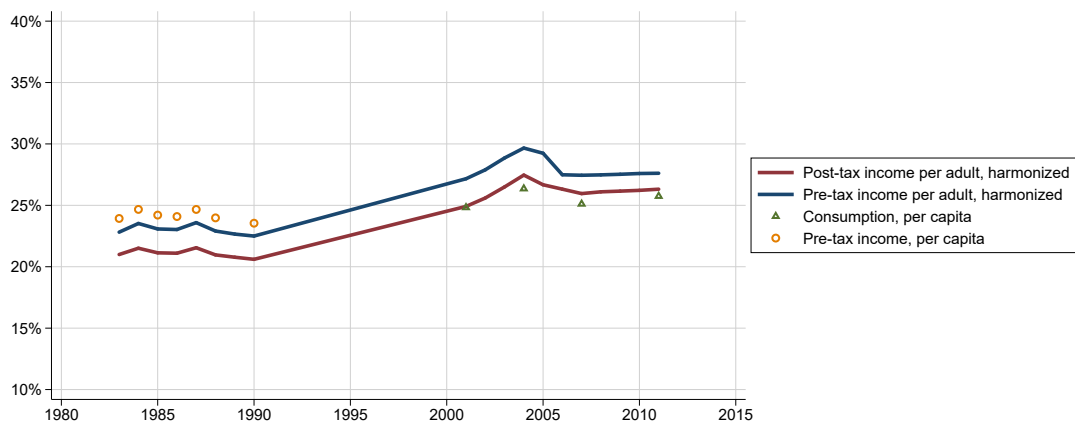
(b) Top 10% pre-tax income share: harmonized surveys vs. DINA

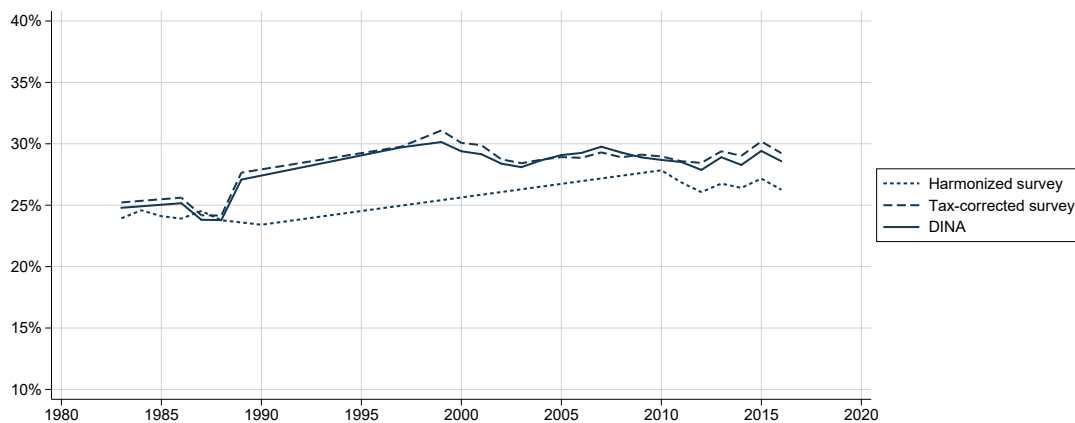(c) Top 10% post-tax income share: harmonized surveys vs. DINA

Figure D.12: Bosnia And Herzegovina: main results

(a) Bottom 50% vs. Top 10% income shares

Bottom 50% share (pre-tax income) Top 10% share (pre-tax income)
Bottom 50% share (post-tax income) Top 10% share (post-tax income)

(b) Growth incidence curve

Pre-tax income growth, 1983-2011
Post-tax income growth, 1983-2011

D.5 Bulgaria

Table D.10: Bulgaria: sources available by year

Year	Survey (tabulated)	Survey (microdata)	Tax data	Undistributed profits	Imputed rents
1980	x				
1981	x				
1982	x				
1983	x				
1984	x				
1985					
1986	x				
1987	x				
1988	x				
1989	x				
1990	x				
1991					
1992	x				
1993	x				
1994	x				
1995	x				
1996	x				
1997	x				
1998	x				
1999	x				
2000	x				
2001	x				
2002	x				
2003	x				
2004					
2005					
2006					
2007		x			
2008		x			
2009		x			
2010		x			
2011		x			
2012		x			
2013		x			
2014		x			
2015		x			
2016		x			
2017					

Source: authors' computations.

Figure D.13: Bulgaria: from tabulated surveys to distributional national accounts

(a) Top 10% income share: tabulated vs. harmonized surveys

(b) Top 10% pre-tax income share: harmonized surveys vs. DINA

(c) Top 10% post-tax income share: harmonized surveys vs. DINA
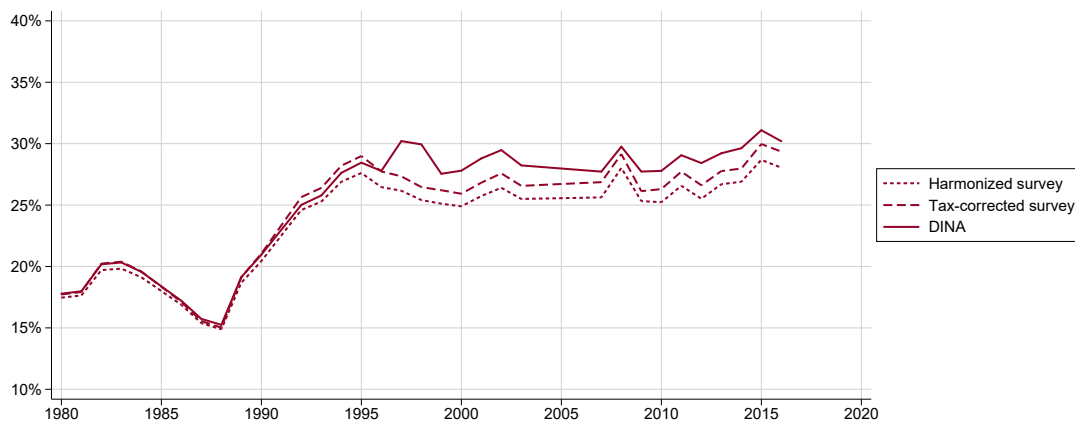
Figure D.14: Bulgaria: main results

(a) Bottom 50% vs. Top 10% income shares
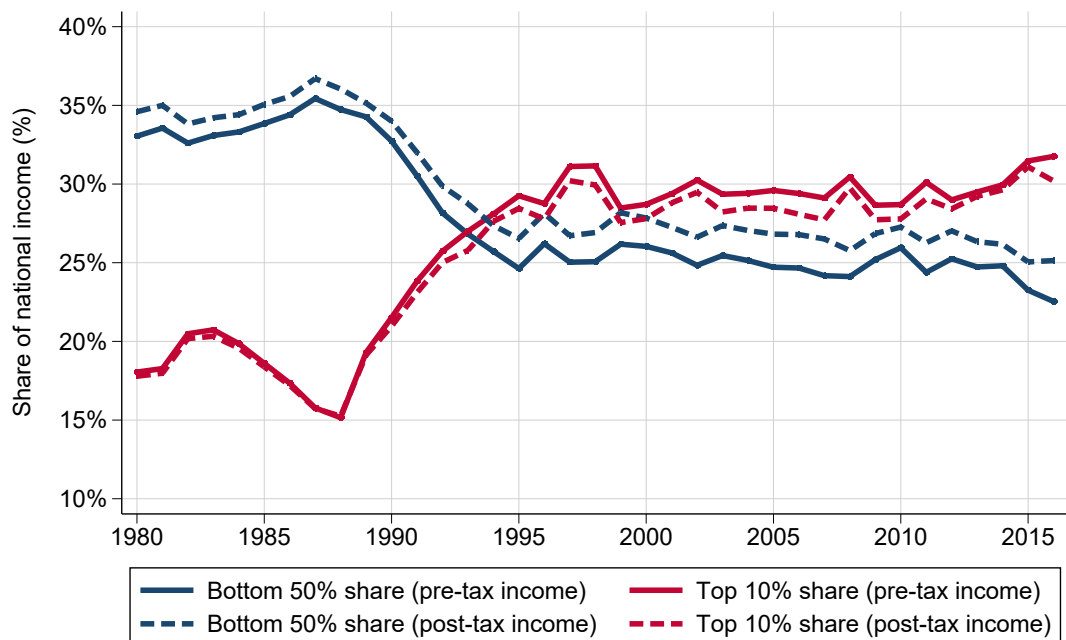
(b) Growth incidence curve
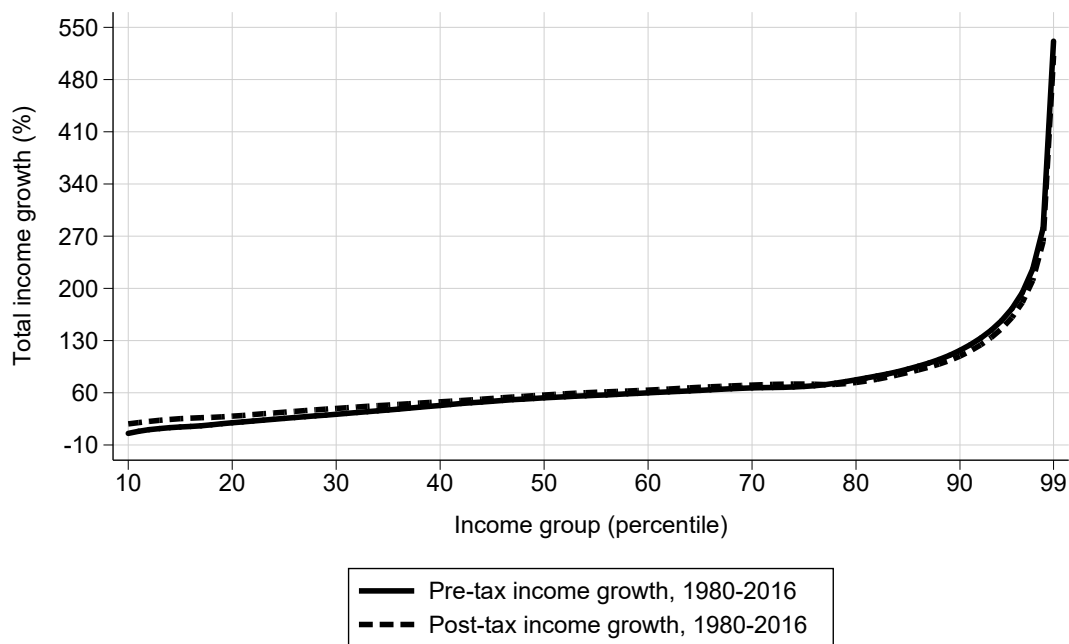
D.6 Croatia

Table D.11: Croatia: sources available by year
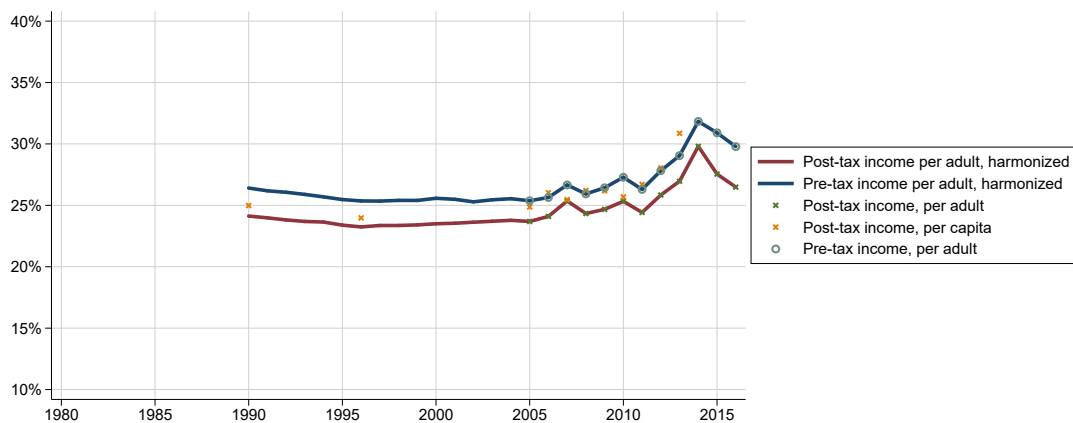
Year	Survey (tabulated)	Survey (microdata)	Tax data	Undistributed profits	Imputed rents
1980					
1981					
1982					
1983	x		x		
1984	x				
1985	x				
1986	x		x		
1987	x		x		
1988	x		x		
1989			x		
1990	x				
1991					
1992					
1993					
1994					
1995					
1996					
1997			x		
1998					
1999			x		
2000			x		
2001			x		
2002			x		x
2003			x		x
2004			x		x
2005			x		x
2006			x		x
2007			x		x
2008			x		x
2009			x		x
2010		x	x		x
2011		x	x		x
2012		x	x		x
2013		x	x		
2014		x			
2015		x			
2016		x			
2017					

*Source*: authors' computations.

Appendix

Figure D.15: Croatia: from tabulated surveys to distributional national accounts

(a) Top 10% income share: tabulated vs. harmonized surveys
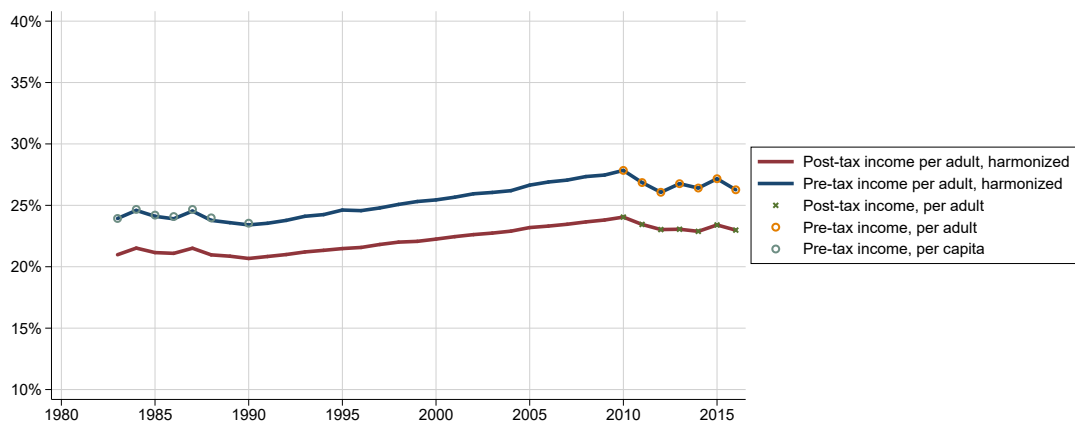
(b) Top 10% pre-tax income share: harmonized surveys vs. DINA

(c) Top 10% post-tax income share: harmonized surveys vs. DINA
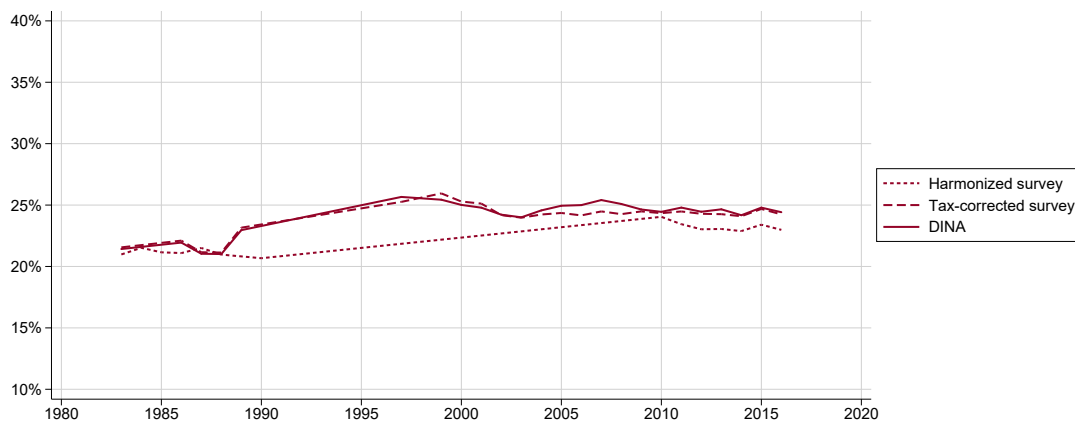
Figure D.16: Croatia: main results

(a) Bottom 50% vs. Top 10% income shares
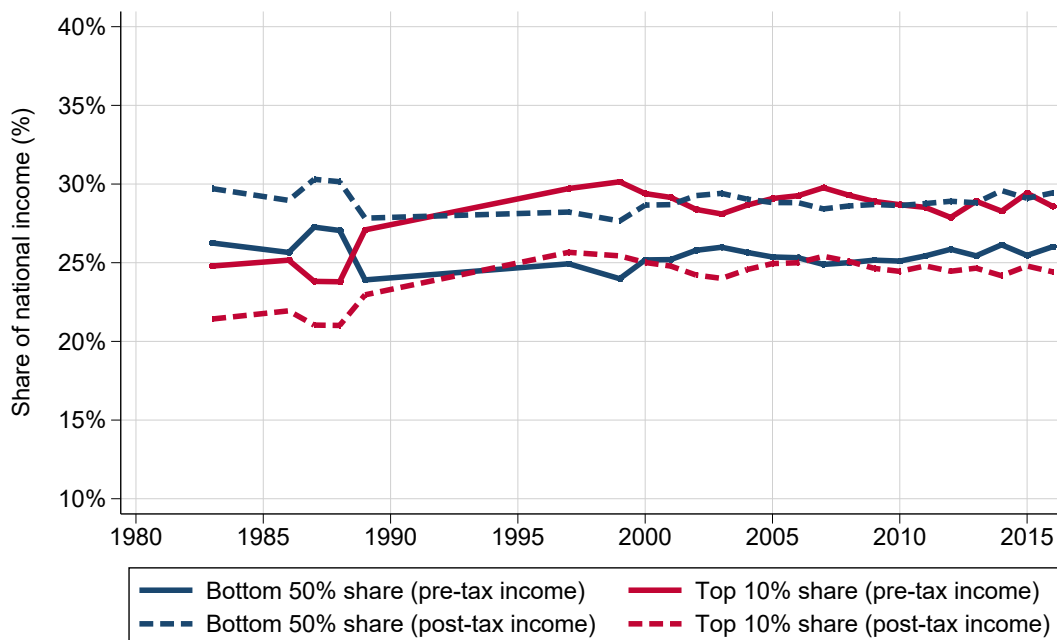
(b) Growth incidence curve
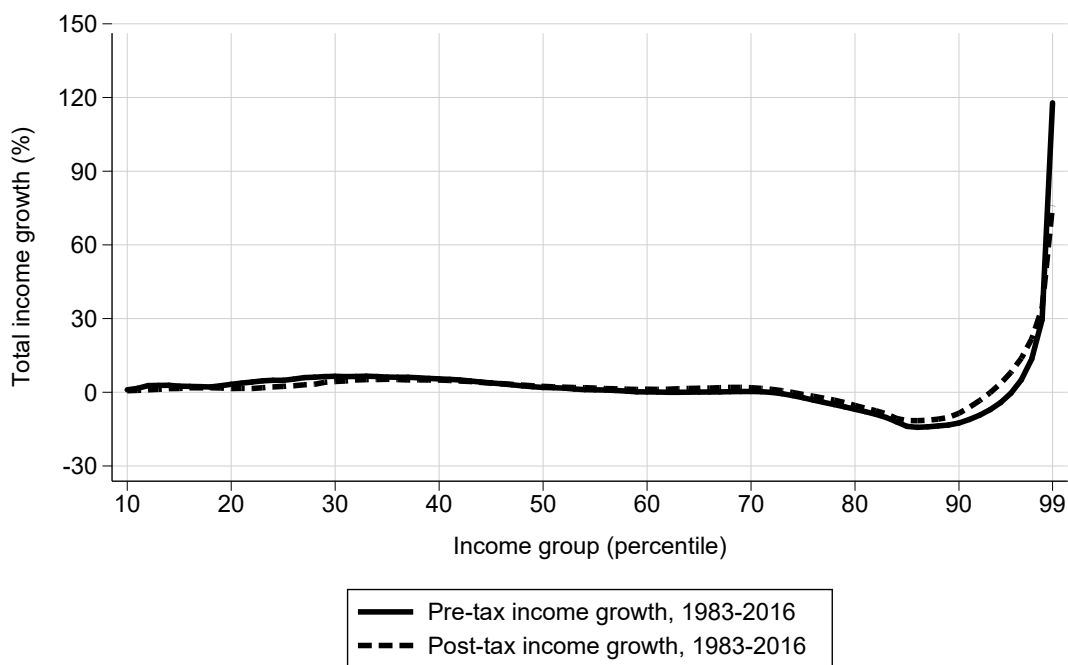
D.7 Cyprus

Table D.12: Cyprus: sources available by year

Year	Survey (tabulated)	Survey (microdata)	Tax data	Undistributed profits	Imputed rents
1980					
1981					
1982					
1983					
1984					
1985					
1986					
1987					
1988					
1989					
1990	x				
1991					
1992					
1993					
1994					
1995					x
1996	x				x
1997					x
1998					x
1999					x
2000					x
2001					x
2002					x
2003					x
2004					x
2005		x			x
2006		x			x
2007		x			x
2008		x			x
2009		x			x
2010		x			x
2011		x			x
2012		x			x
2013		x			x
2014		x			x
2015		x			x
2016		x			x
2017					x

Source: authors' computations.

Figure D.17: Cyprus: from tabulated surveys to distributional national accounts

(a) Top 10% income share: tabulated vs. harmonized surveys

(b) Top 10% pre-tax income share: harmonized surveys vs. DINA
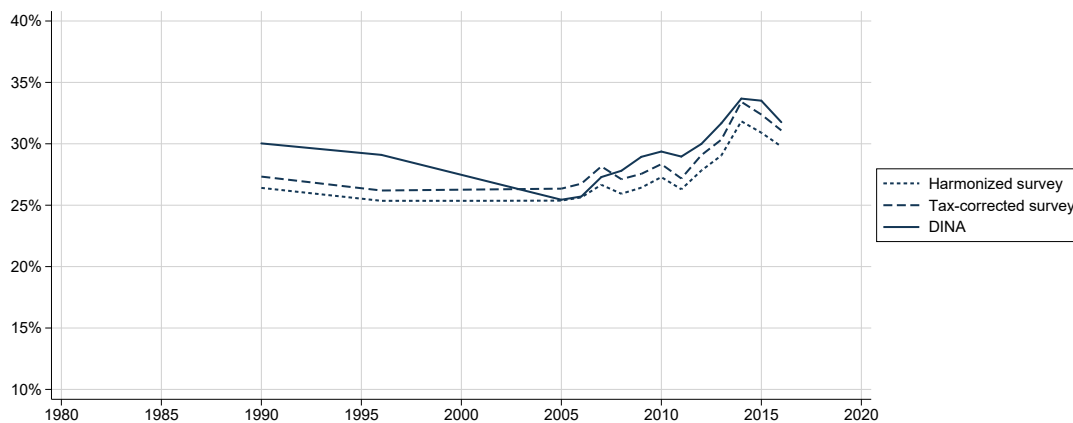
(c) Top 10% post-tax income share: harmonized surveys vs. DINA
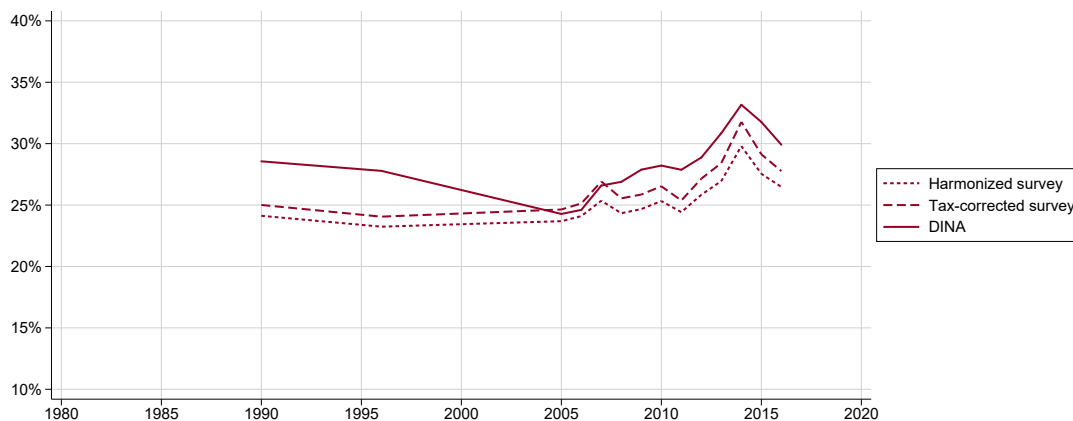
Figure D.18: Cyprus: main results

(a) Bottom 50% vs. Top 10% income shares
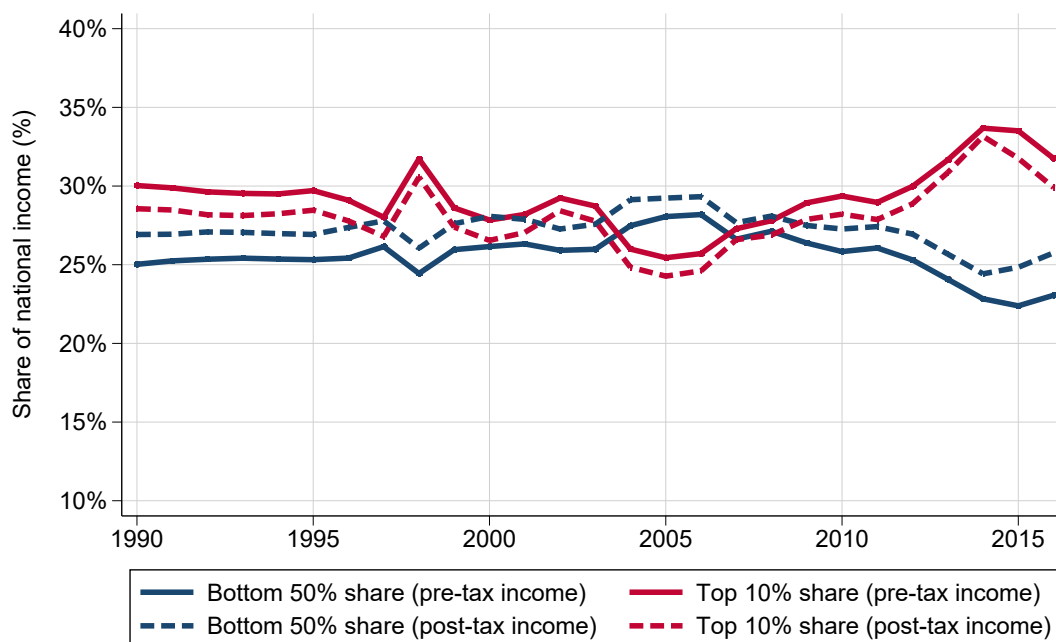
(b) Growth incidence curve
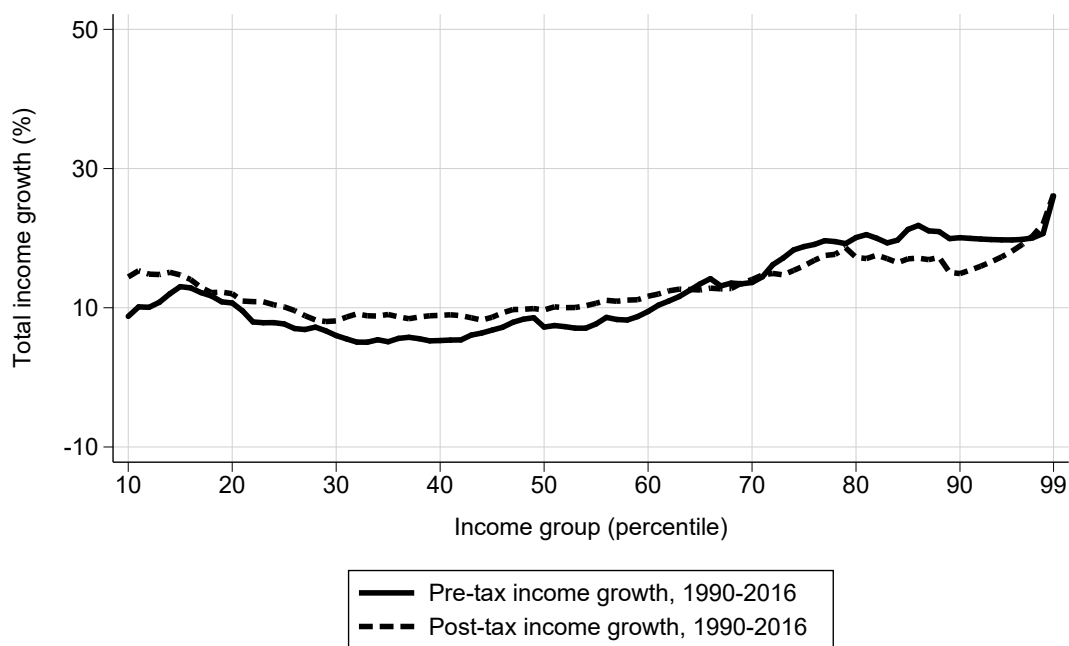
D.8   Czech Republic
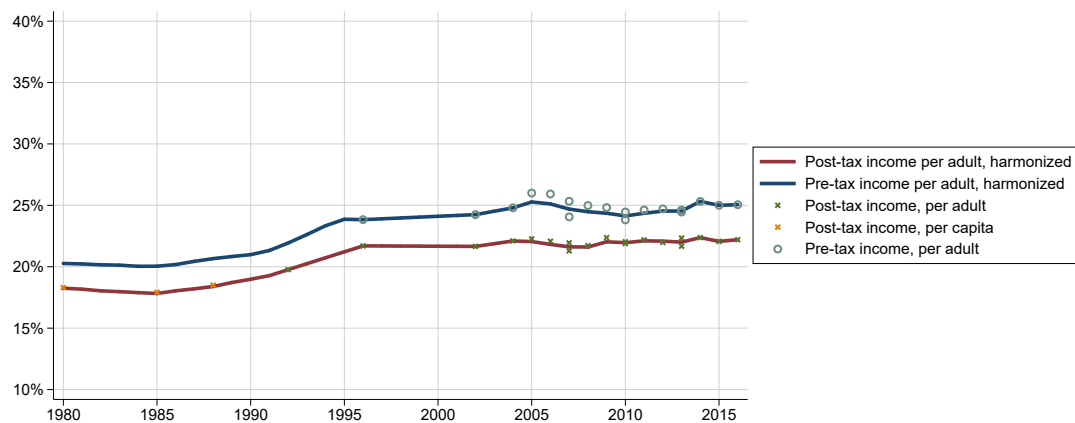
Table D.13: Czech Republic: sources available by year

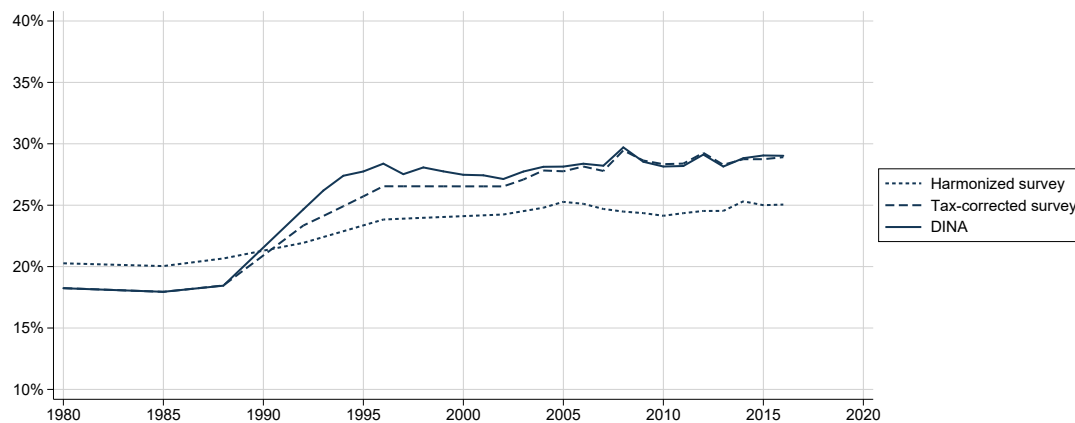| Year	Survey (tabulated)	Survey (microdata)	Tax data	Undistributed profits	Imputed rents
1980	x		x		
1981					
1982					
1983					
1984					
1985	x		x		
1986					
1987					
1988	x		x		
1989					
1990					
1991					
1992		x	x		
1993			x	x	x
1994			x	x	x
1995			x	x	x
1996		x	x	x	x
1997			x	x	x
1998			x	x	x
1999			x	x	x
2000			x	x	x
2001			x	x	x
2002		x	x	x	x
2003			x	x	x
2004		x	x	x	x
2005		x	x	x	x
2006		x	x	x	x
2007		x	x	x	x
2008		x	x	x	x
2009		x	x	x	x
2010		x	x	x	x
2011		x	x	x	x
2012		x	x	x	x
2013		x	x	x	x
2014		x	x	x	x
2015		x	x	x	x
2016		x		x	x
2017				x	x

Source: authors' computations.

Figure D.19: Czech Republic: from tabulated surveys to distributional national accounts

(a) Top 10% income share: tabulated vs. harmonized surveys

(b) Top 10% pre-tax income share: harmonized surveys vs. DINA

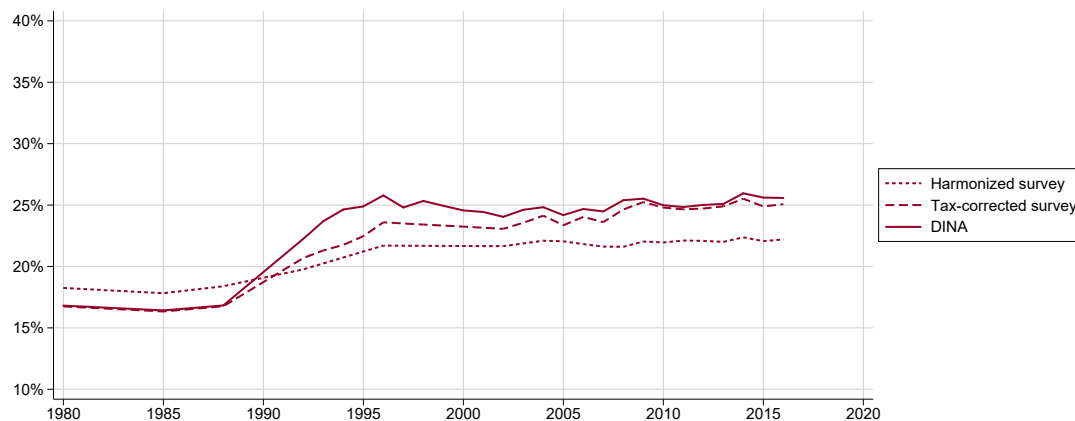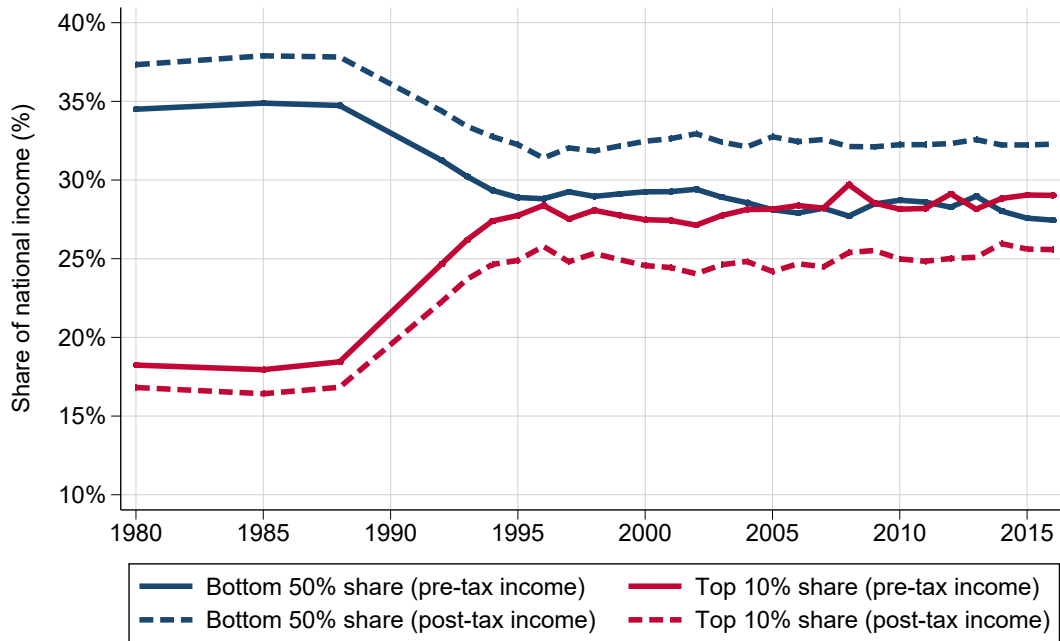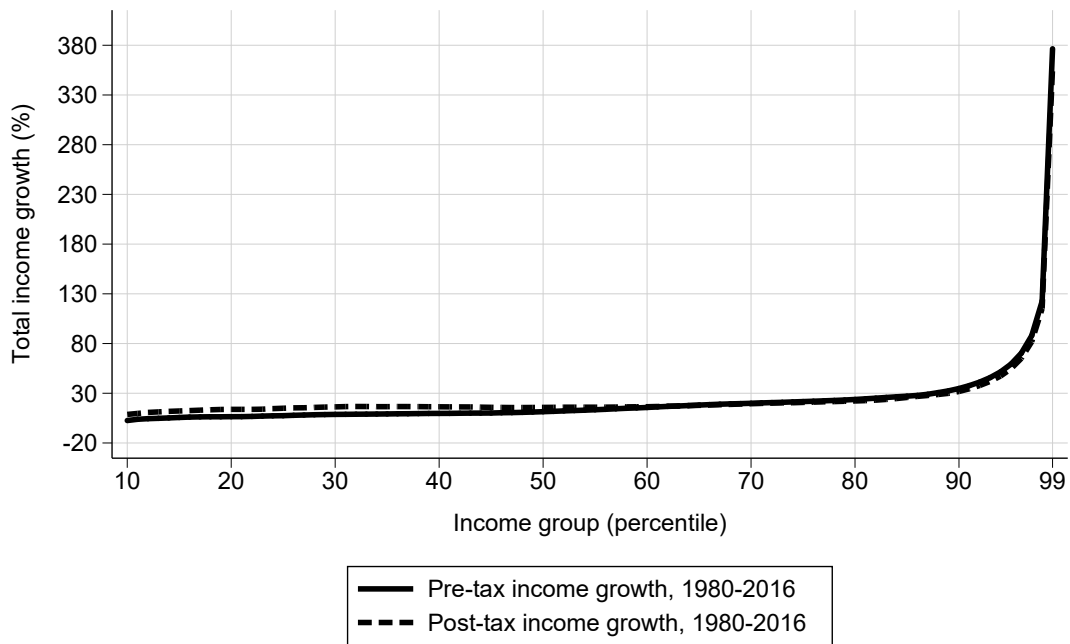(c) Top 10% post-tax income share: harmonized surveys vs. DINA

Figure D.20: Czech Republic: main results

(a) Bottom 50% vs. Top 10% income shares

(b) Growth incidence curve

D.9   Denmark
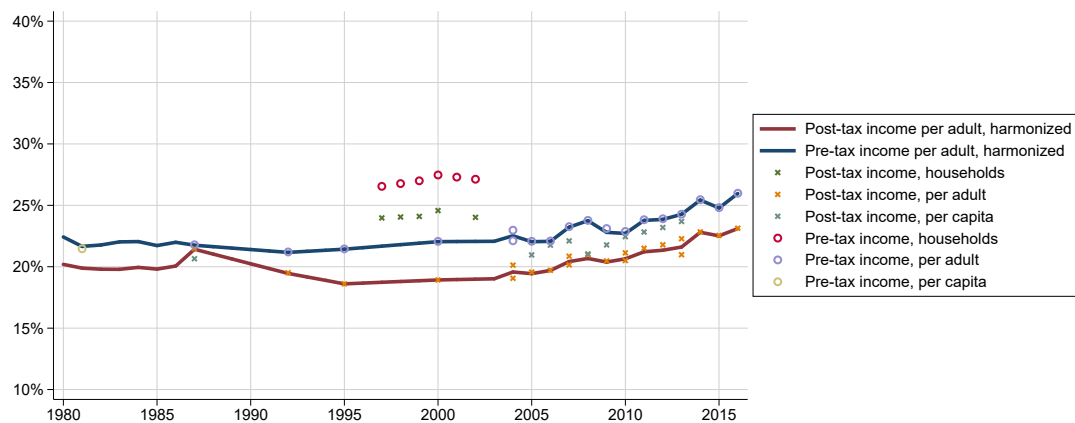
Table D.14: Denmark: sources available by year

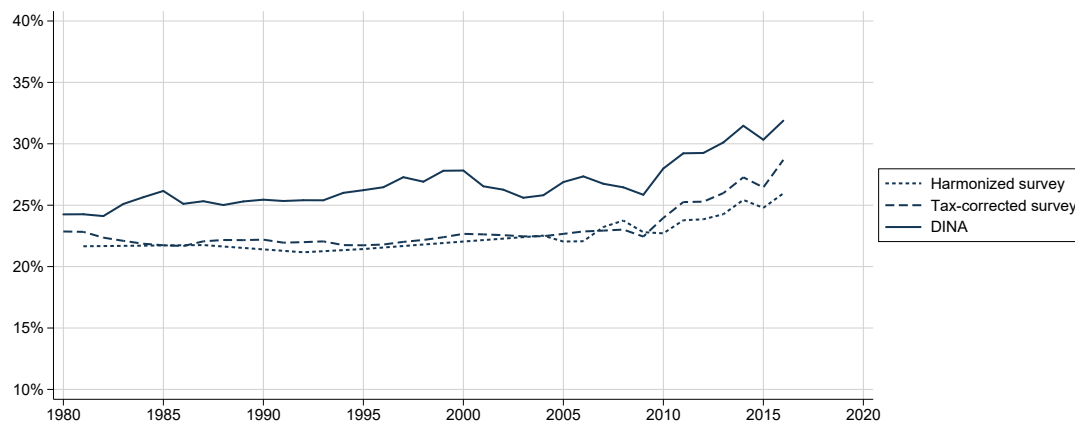| Year	Survey (tabulated)	Survey (microdata)	Tax data	Undistributed profits	Imputed rents
1980			x		
1981	x		x		
1982			x		
1983			x		
1984			x		
1985			x		
1986			x		
1987		x	x		
1988			x		
1989			x		
1990			x		x
1991			x		x
1992		x	x		x
1993			x		x
1994			x	x	x
1995		x	x	x	x
1996			x	x	x
1997	x		x	x	x
1998	x		x	x	x
1999	x		x	x	x
2000		x	x	x	x
2001	x		x	x	x
2002	x		x	x	x
2003			x	x	x
2004		x	x	x	x
2005		x	x	x	x
2006		x	x	x	x
2007		x	x	x	x
2008		x	x	x	x
2009		x	x	x	x
2010		x	x	x	x
2011		x		x	x
2012		x		x	x
2013		x		x	x
2014		x		x	x
2015		x		x	x
2016		x		x	x
2017				x	x

Source: authors' computations.

Figure D.21: Denmark: from tabulated surveys to distributional national accounts

(a) Top 10% income share: tabulated vs. harmonized surveys

(b) Top 10% pre-tax income share: harmonized surveys vs. DINA

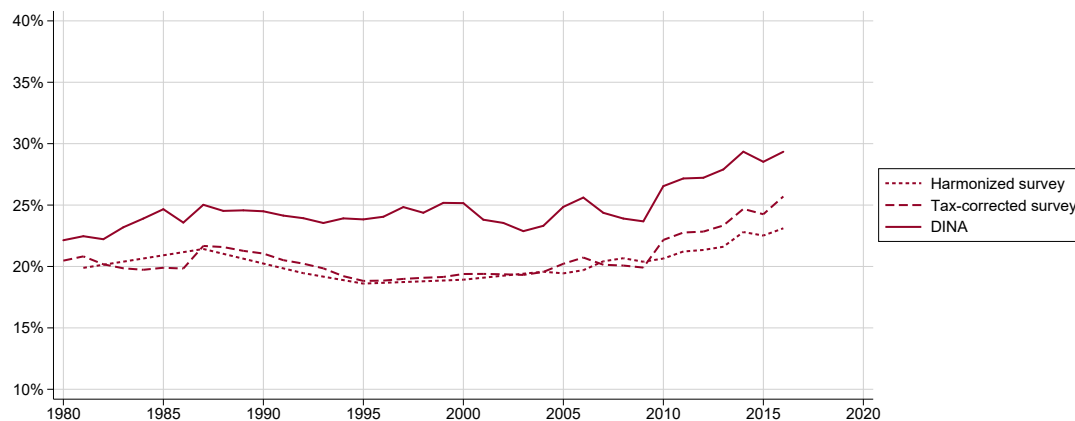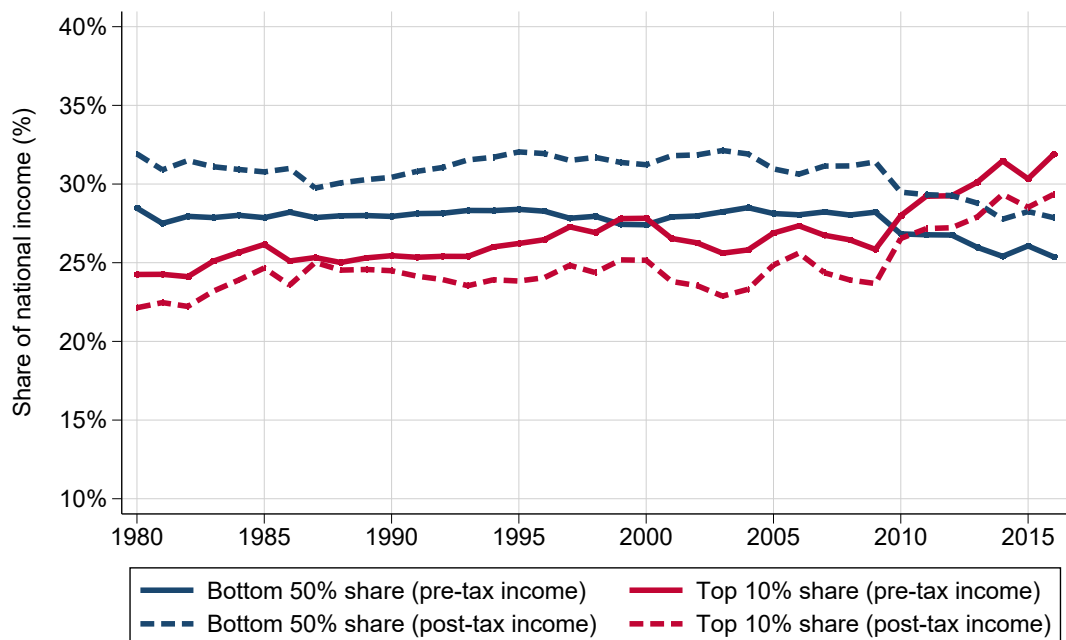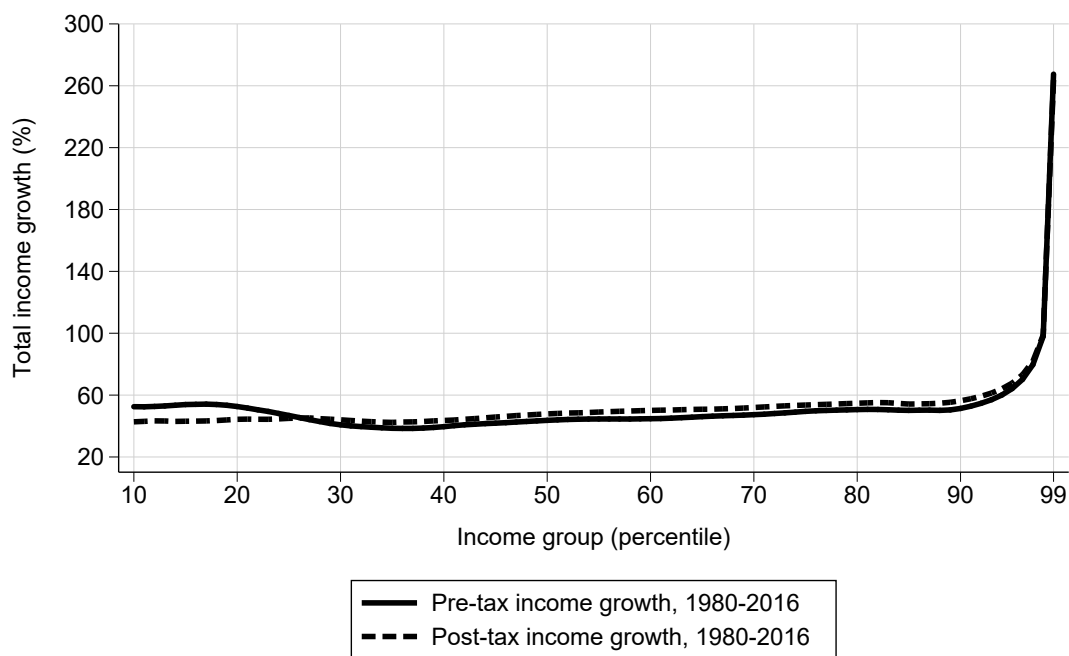(c) Top 10% post-tax income share: harmonized surveys vs. DINA

Figure D.22: Denmark: main results

(a) Bottom 50% vs. Top 10% income shares

(b) Growth incidence curve

D.10 Estonia

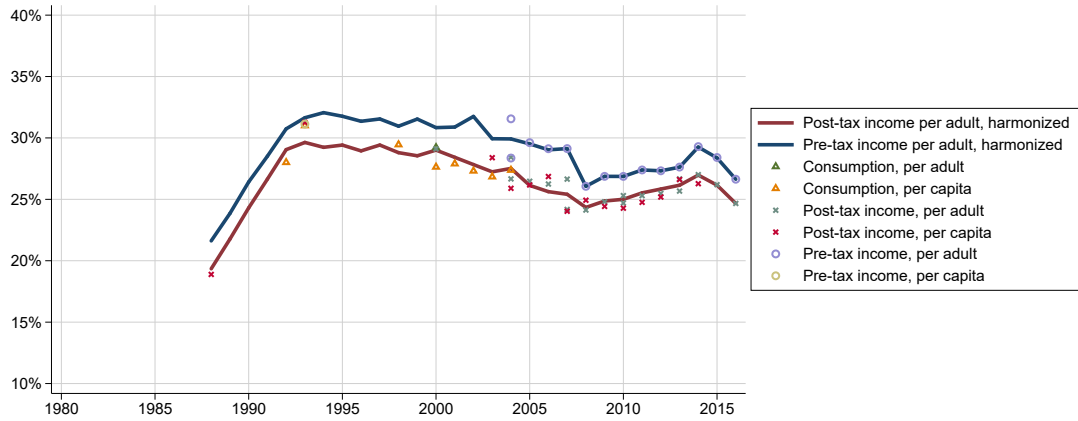Table D.15: Estonia: sources available by year

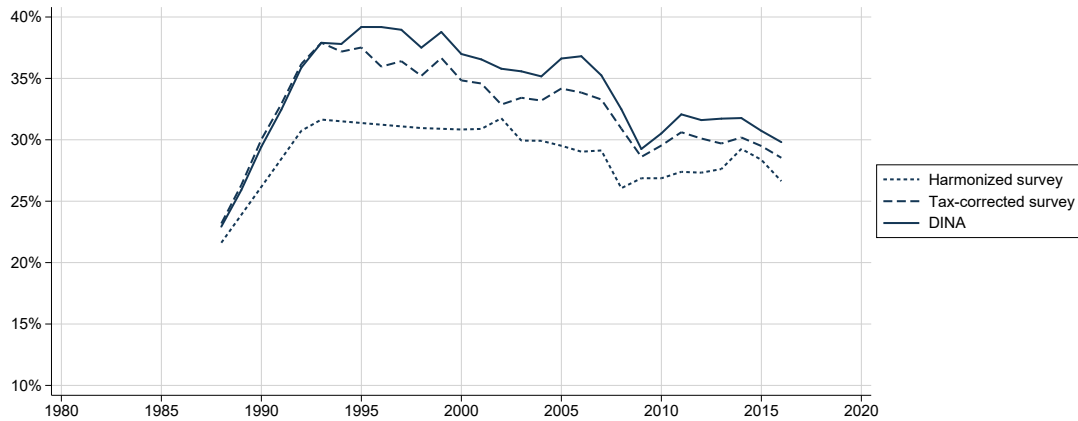| Year	Survey (tabulated)	Survey (microdata)	Tax data	Undistributed profits	Imputed rents
1980					
1981					
1982					
1983					
1984					
1985					
1986					
1987					
1988	x				
1989					
1990					
1991					
1992	x				
1993	x				
1994				x	
1995				x	
1996				x	
1997				x	
1998	x			x	
1999				x	
2000		x		x	
2001	x			x	
2002	x			x	
2003	x			x	
2004		x		x	
2005		x		x	
2006		x		x	
2007		x		x	
2008		x		x	
2009		x		x	
2010		x		x	
2011		x		x	
2012		x		x	
2013		x		x	
2014		x		x	
2015		x		x	
2016		x		x	
2017				x	

Source: authors' computations.

Figure D.23: Estonia: from tabulated surveys to distributional national accounts

(a) Top 10% income share: tabulated vs. harmonized surveys

(b) Top 10% pre-tax income share: harmonized surveys vs. DINA

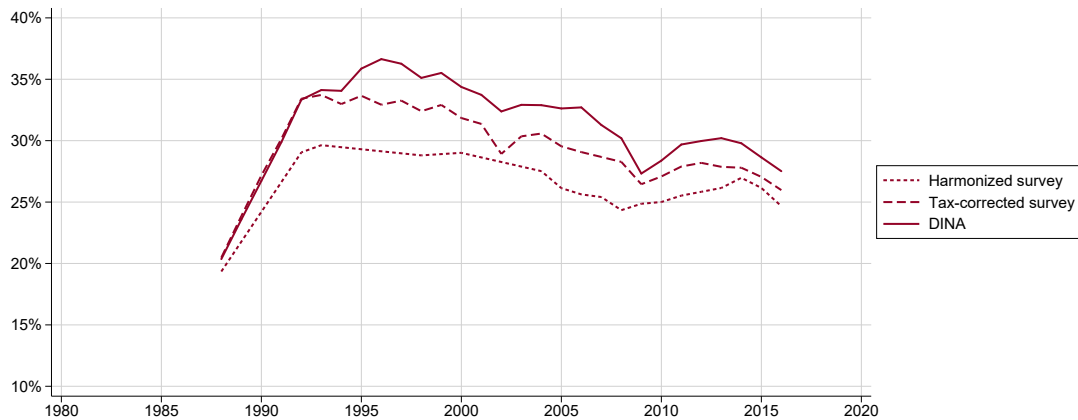(c) Top 10% post-tax income share: harmonized surveys vs. DINA

Figure D.24: Estonia: main results

(a) Bottom 50% vs. Top 10% income shares
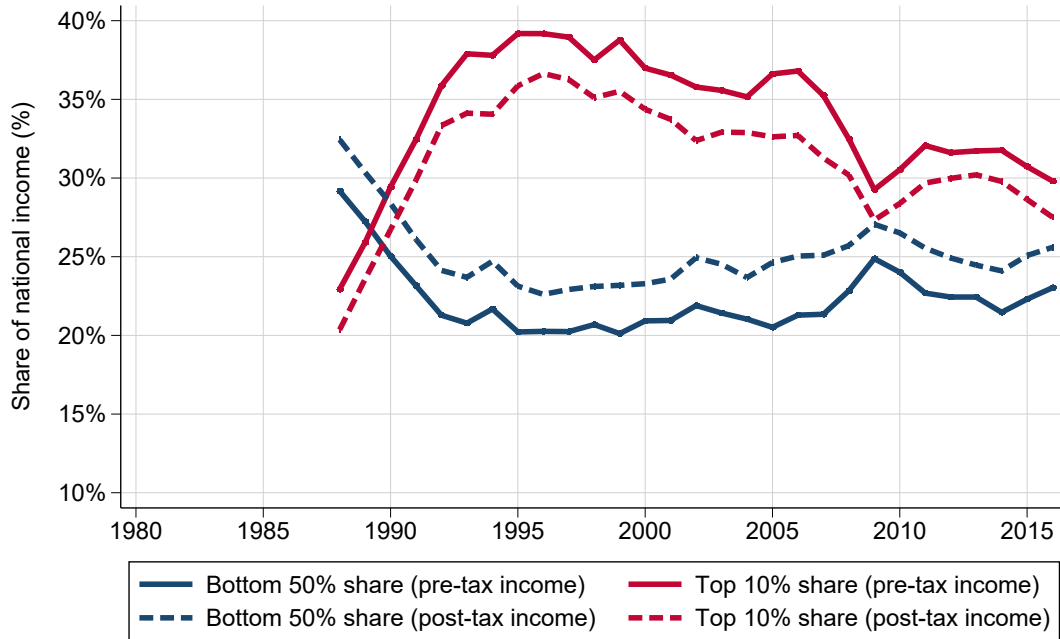
(b) Growth incidence curve
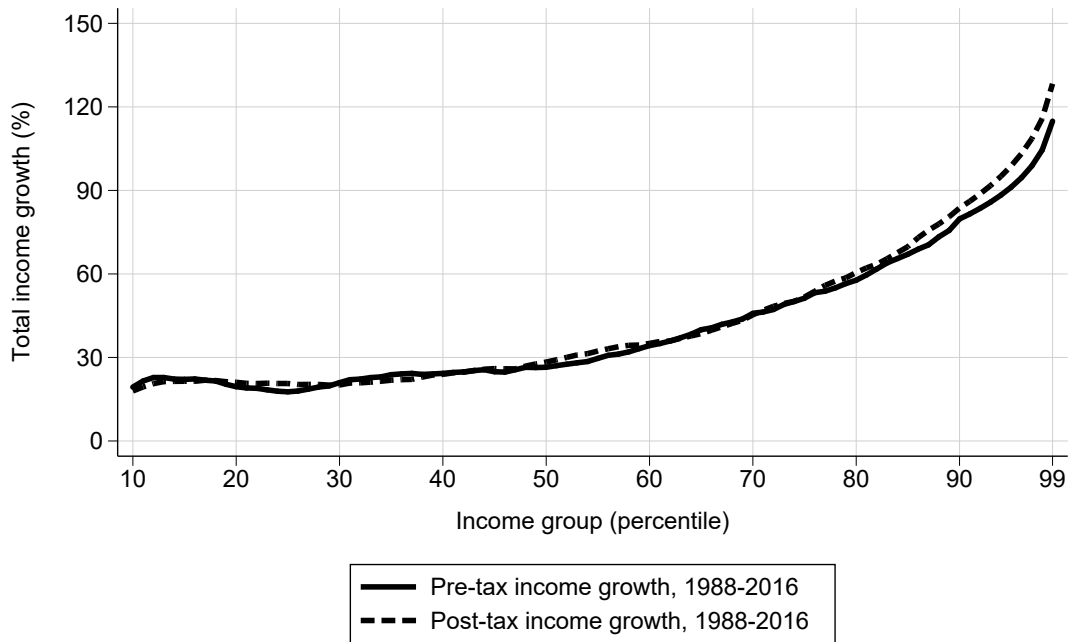
D.11   Finland

Table D.16: Finland: sources available by year

Year	Survey (tabulated)	Survey (microdata)	Tax data	Undistributed profits	Imputed rents
1980			x		x
1981	x		x		x
1982			x		x
1983			x		x
1984			x		x
1985	x		x		x
1986			x		x
1987		x	x		x
1988	x		x		x
1989	x		x		x
1990	x		x		x
1991		x	x		x
1992	x		x		x
1993	x		x		x
1994	x		x		x
1995		x	x	x	x
1996		x	x	x	x
1997		x	x	x	x
1998		x	x	x	x
1999		x	x	x	x
2000		x	x	x	x
2001		x	x	x	x
2002	x		x	x	x
2003	x		x	x	x
2004		x	x	x	x
2005		x	x	x	x
2006		x	x	x	x
2007		x	x	x	x
2008		x	x	x	x
2009		x	x	x	x
2010		x		x	x
2011		x		x	x
2012		x		x	x
2013		x		x	x
2014		x		x	x
2015		x		x	x
2016		x		x	x
2017				x	x

Source: authors' computations.

Figure D.25: Finland: from tabulated surveys to distributional national accounts

(a) Top 10% income share: tabulated vs. harmonized surveys

(b) Top 10% pre-tax income share: harmonized surveys vs. DINA

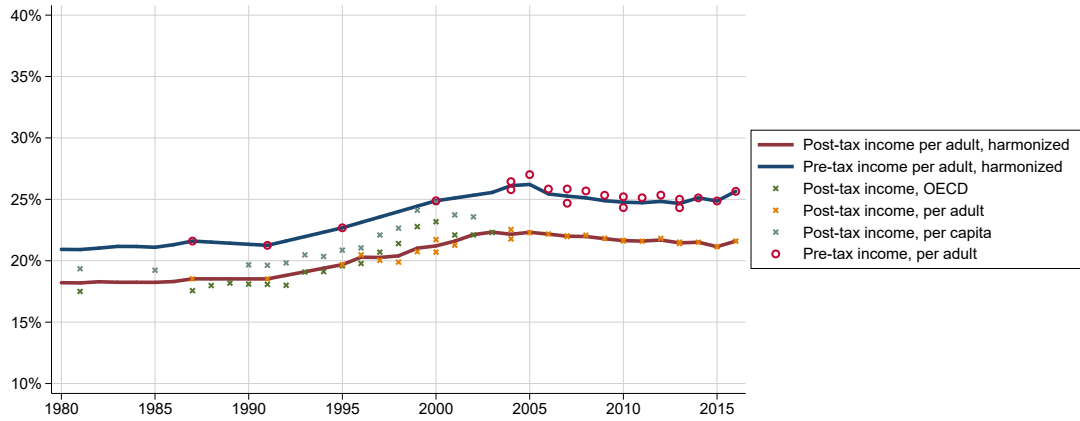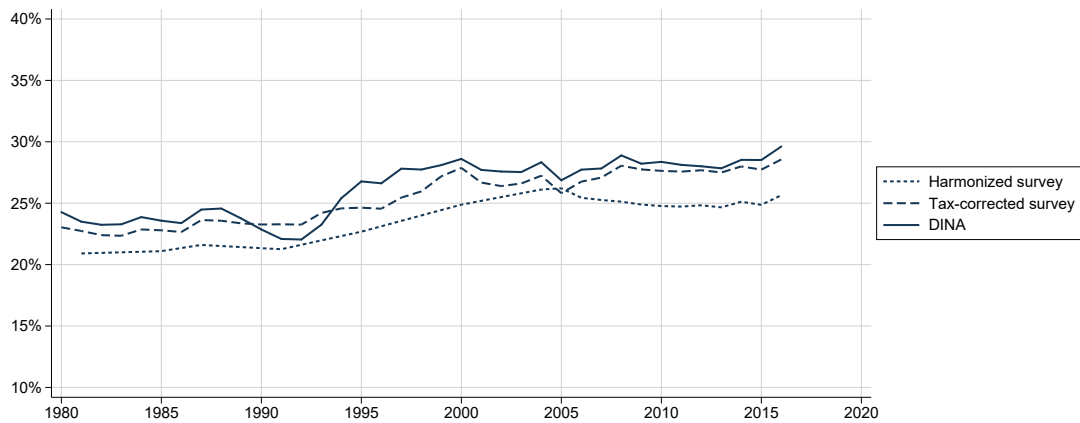(c) Top 10% post-tax income share: harmonized surveys vs. DINA
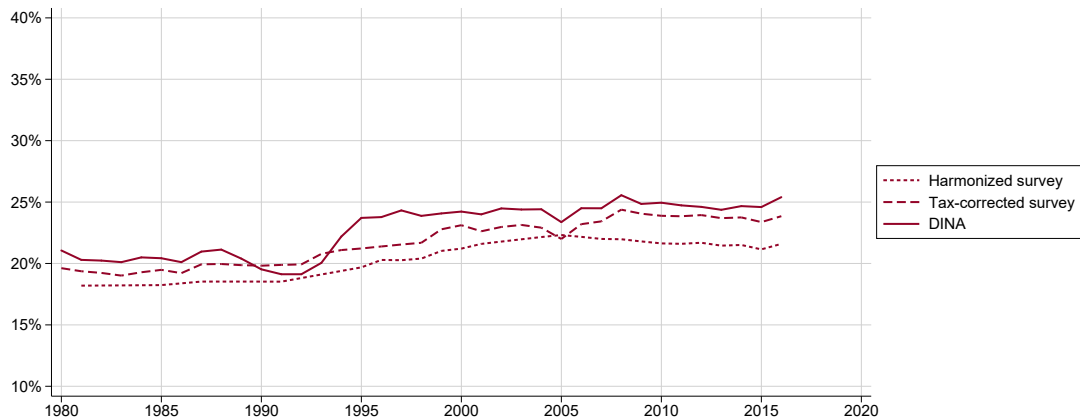
Figure D.26: Finland: main results

(a) Bottom 50% vs. Top 10% income shares
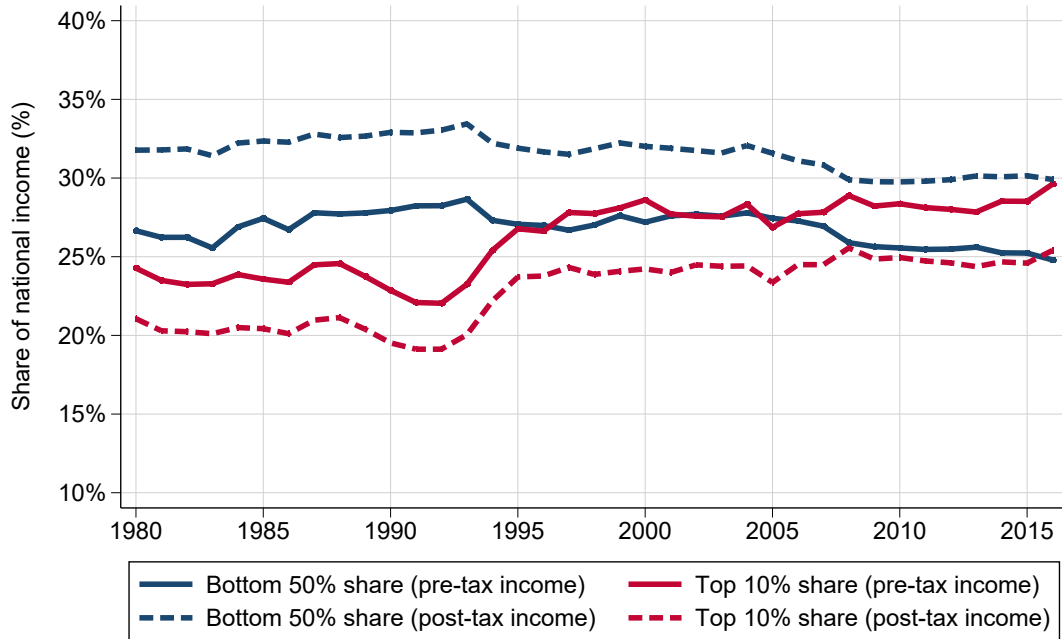
(b) Growth incidence curve
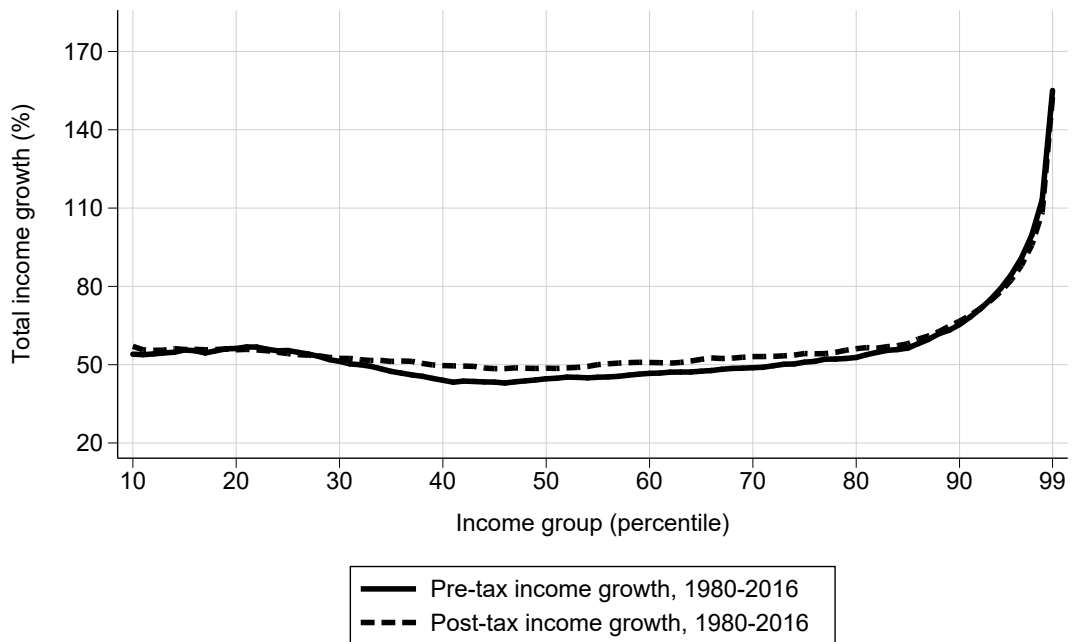
D.12 France

Table D.17: France: sources available by year

Year	Survey (tabulated)	Survey (microdata)	Tax data	Undistributed profits	Imputed rents
1980			x		x
1981			x		x
1982			x		x
1983			x		x
1984			x		x
1985			x		x
1986			x		x
1987			x		x
1988			x		x
1989		x	x		x
1990			x		x
1991			x		x
1992			x		x
1993			x		x
1994		x	x		x
1995		x	x	x	x
1996		x	x	x	x
1997		x	x	x	x
1998		x	x	x	x
1999		x	x	x	x
2000		x	x	x	x
2001		x	x	x	x
2002			x	x	x
2003			x	x	x
2004			x	x	x
2005		x	x	x	x
2006			x	x	x
2007			x	x	x
2008		x	x	x	x
2009		x	x	x	x
2010		x	x	x	x
2011		x	x	x	x
2012		x	x	x	x
2013		x	x	x	x
2014		x	x	x	x
2015		x		x	x
2016				x	x
2017				x	x

Source: authors' computations.

Appendix

Figure D.27: France: from tabulated surveys to distributional national accounts

(a) Top 10% income share: tabulated vs. harmonized surveys

(b) Top 10% pre-tax income share: harmonized surveys vs. DINA

(c) Top 10% post-tax income share: harmonized surveys vs. DINA
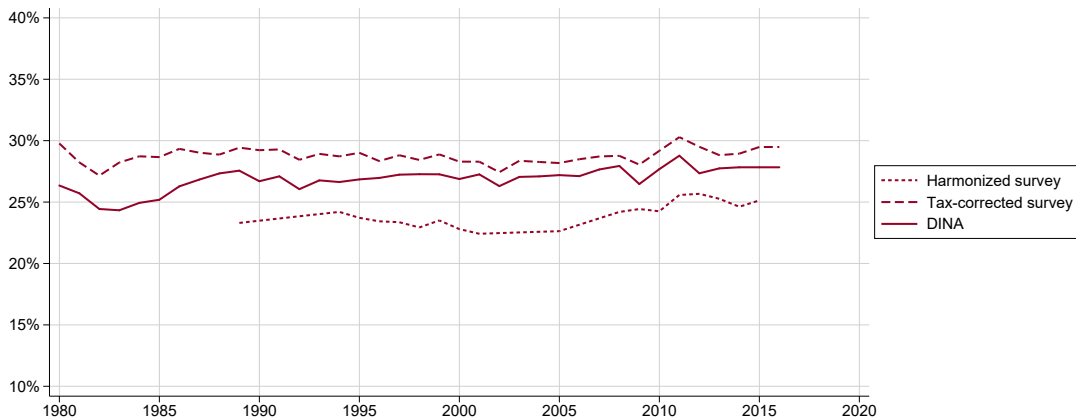
Figure D.28: France: main results

(a) Bottom 50% vs. Top 10% income shares
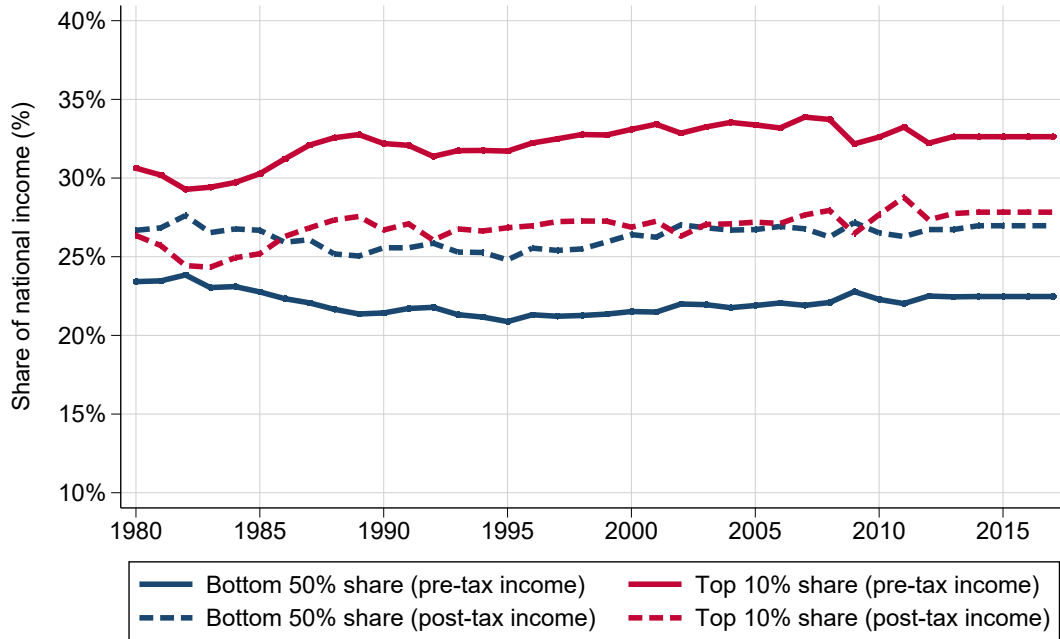
(b) Growth incidence curve
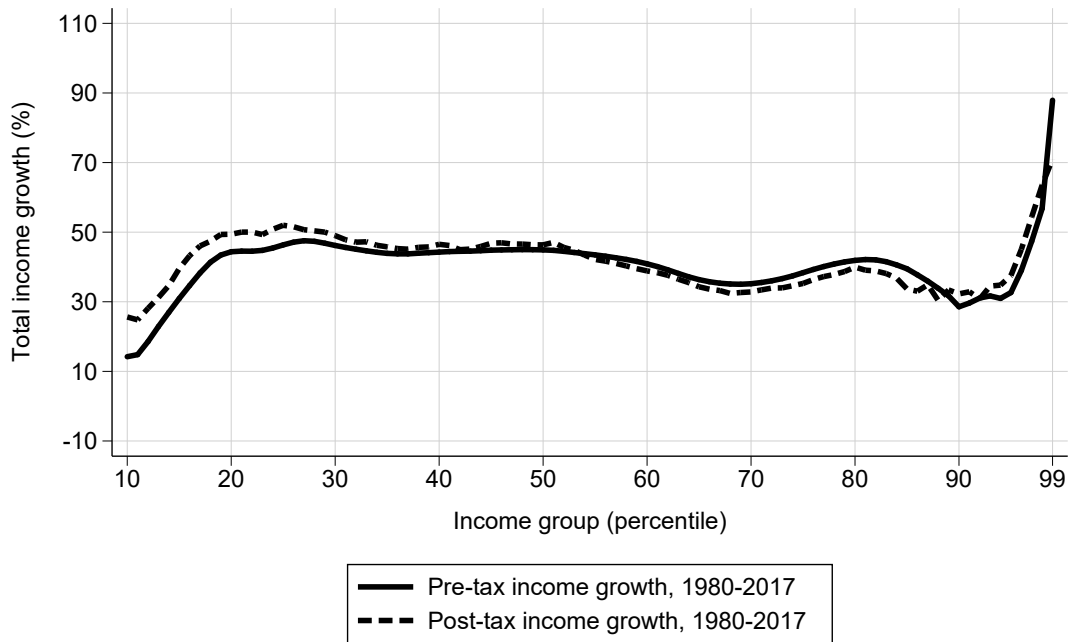
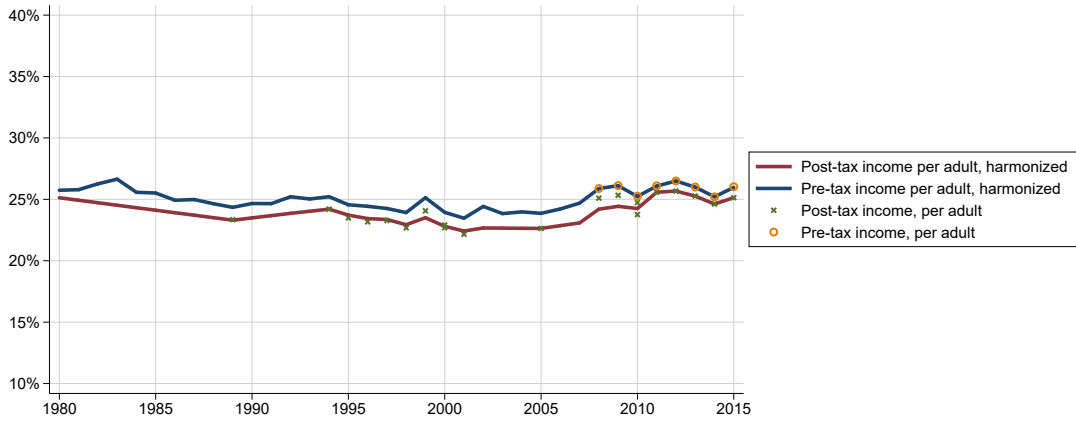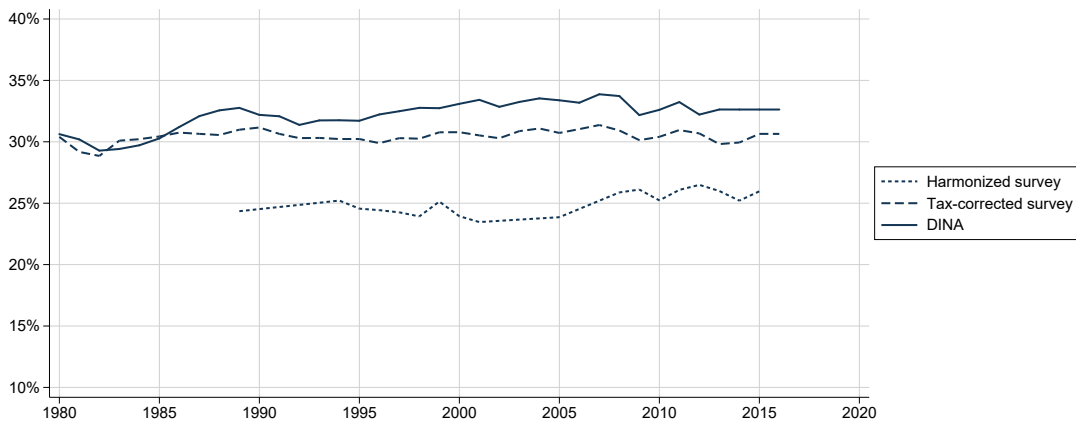## D.13　Germany

Table D.18:　Germany: sources available by year

Year	Survey (tabulated)	Survey (microdata)	Tax data	Undistributed profits	Imputed rents
1980			x		
1981		x			
1982					
1983		x	x		
1984		x			
1985					
1986			x		
1987		x			
1988					
1989		x	x		
1990					
1991		x		x	x
1992			x	x	x
1993				x	x
1994		x		x	x
1995		x	x	x	x
1996				x	x
1997				x	x
1998		x	x	x	x
1999				x	x
2000		x		x	x
2001		x	x	x	x
2002		x	x	x	x
2003		x	x	x	x
2004		x	x	x	x
2005		x	x	x	x
2006		x	x	x	x
2007		x	x	x	x
2008		x	x	x	x
2009		x	x	x	x
2010		x	x	x	x
2011		x	x	x	x
2012		x	x	x	x
2013		x	x	x	x
2014		x		x	x
2015		x		x	x
2016		x		x	x
2017				x	x

Source: authors' computations.

Figure D.29: Germany: from tabulated surveys to distributional national accounts

(a) Top 10% income share: tabulated vs. harmonized surveys

(b) Top 10% pre-tax income share: harmonized surveys vs. DINA

(c) Top 10% post-tax income share: harmonized surveys vs. DINA
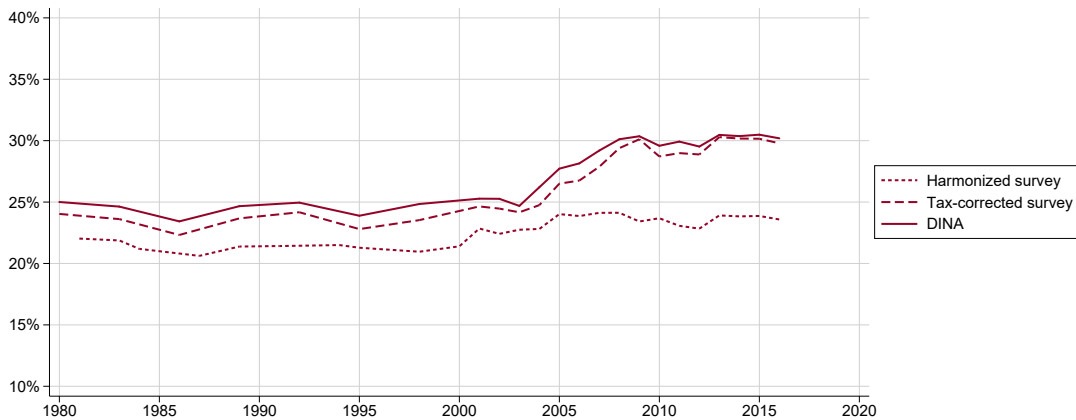
Figure D.30: Germany: main results

(a) Bottom 50% vs. Top 10% income shares
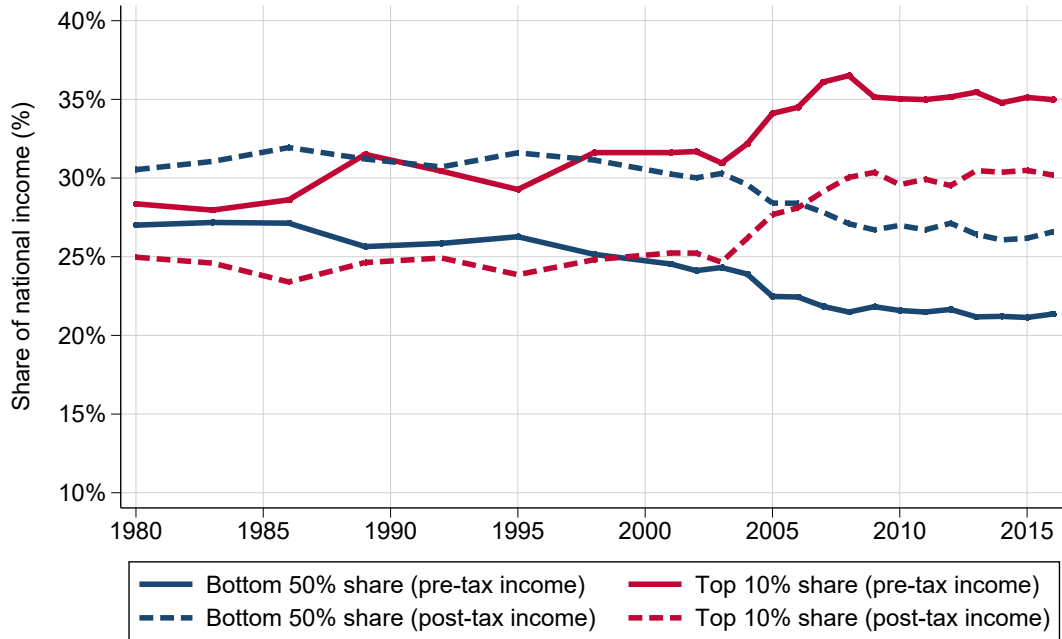
(b) Growth incidence curve
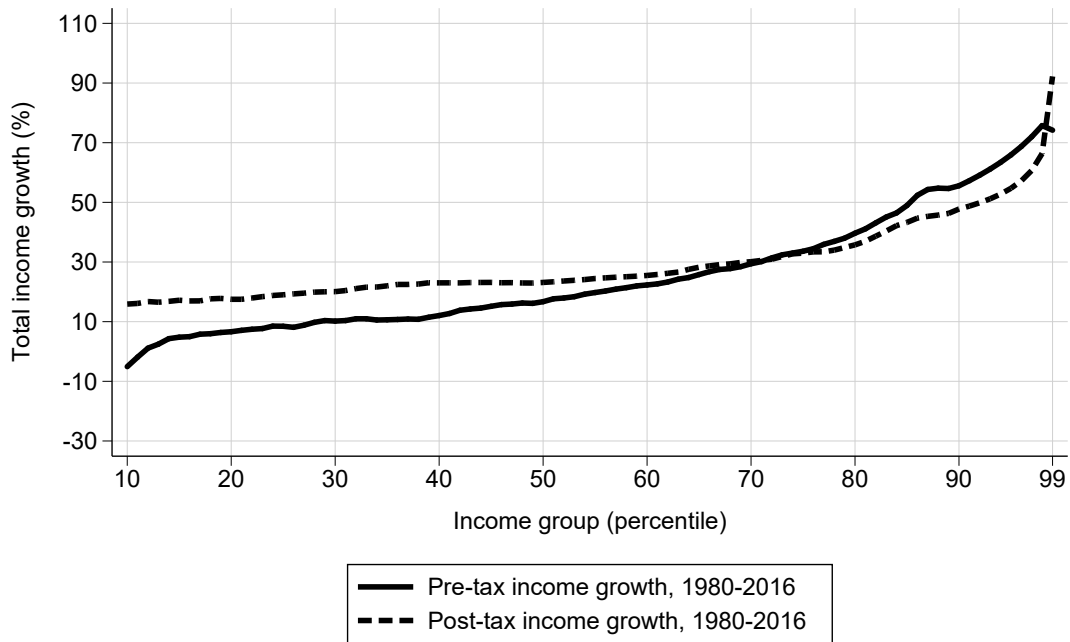
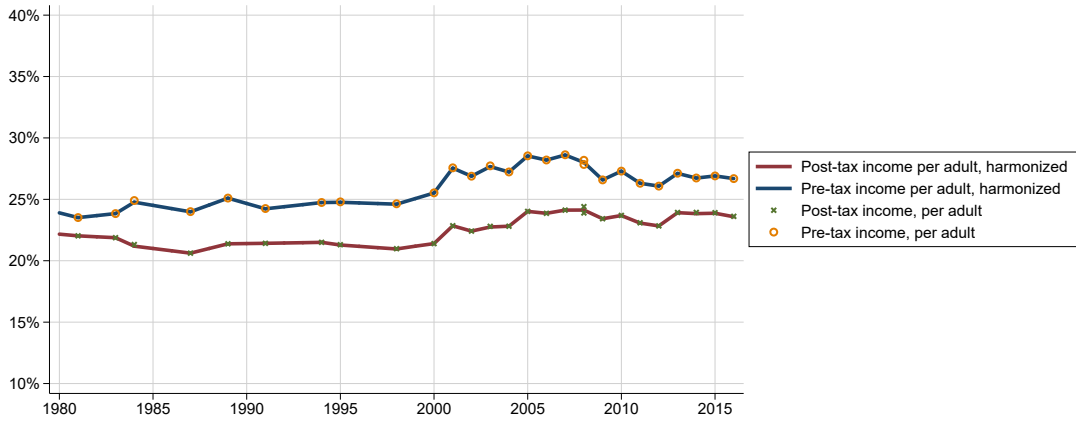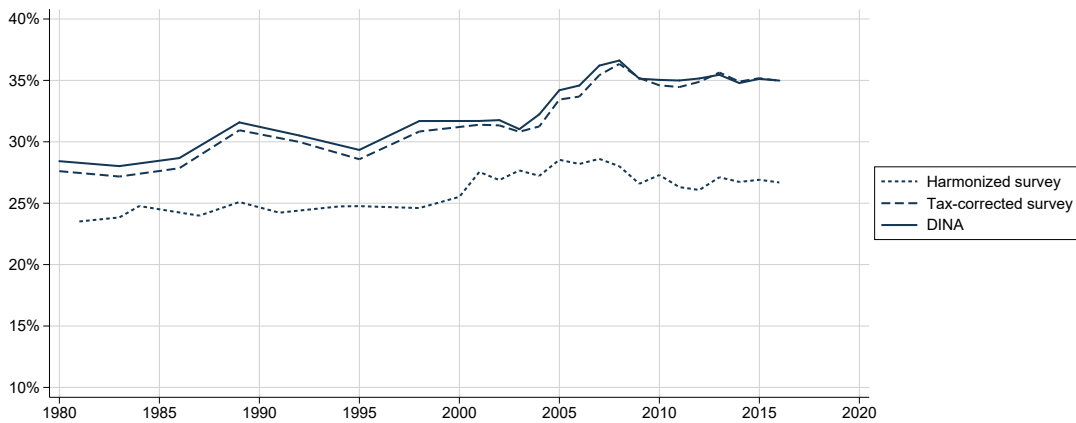## D.14   Greece

Table D.19: Greece: sources available by year

Year	Survey (tabulated)	Survey (microdata)	Tax data	Undistributed profits	Imputed rents
1980					
1981					
1982					
1983					
1984					
1985					
1986					
1987					
1988					
1989					
1990					
1991					
1992					
1993					
1994					
1995		x		x	x
1996		x		x	x
1997		x		x	x
1998		x		x	x
1999		x		x	x
2000		x		x	x
2001		x		x	x
2002				x	x
2003				x	x
2004		x		x	x
2005		x		x	x
2006		x		x	x
2007		x		x	x
2008		x		x	x
2009		x		x	x
2010		x		x	x
2011		x		x	x
2012		x		x	x
2013		x		x	x
2014		x		x	x
2015		x		x	x
2016		x		x	x
2017					

Source: authors' computations.

Appendix

Figure D.31: Greece: from tabulated surveys to distributional national accounts

(a) Top 10% income share: tabulated vs. harmonized surveys

(b) Top 10% pre-tax income share: harmonized surveys vs. DINA

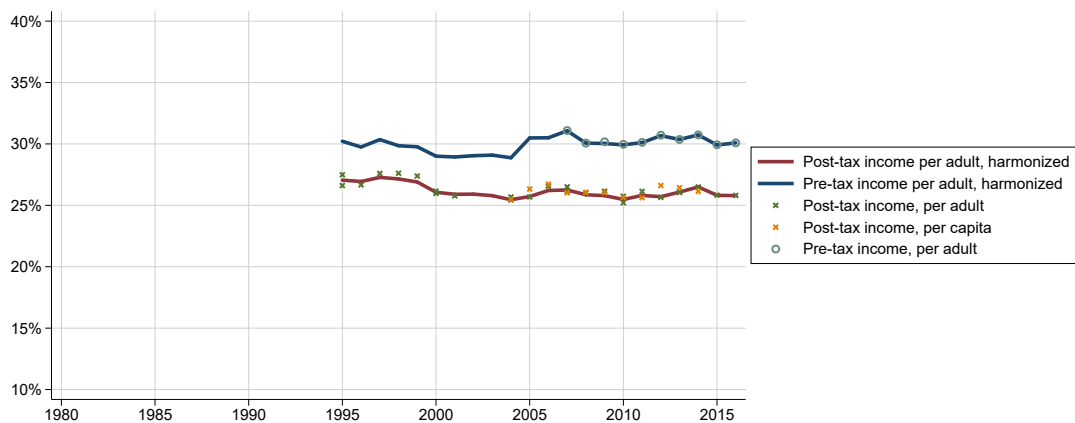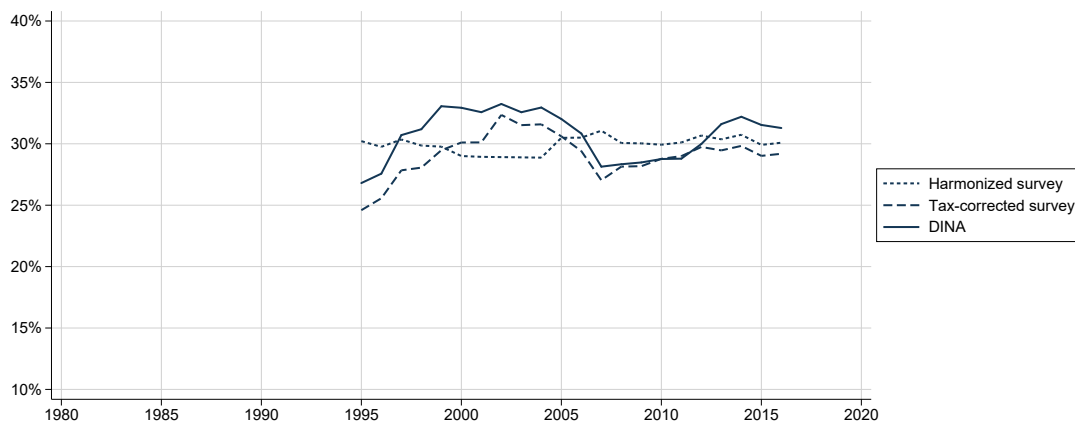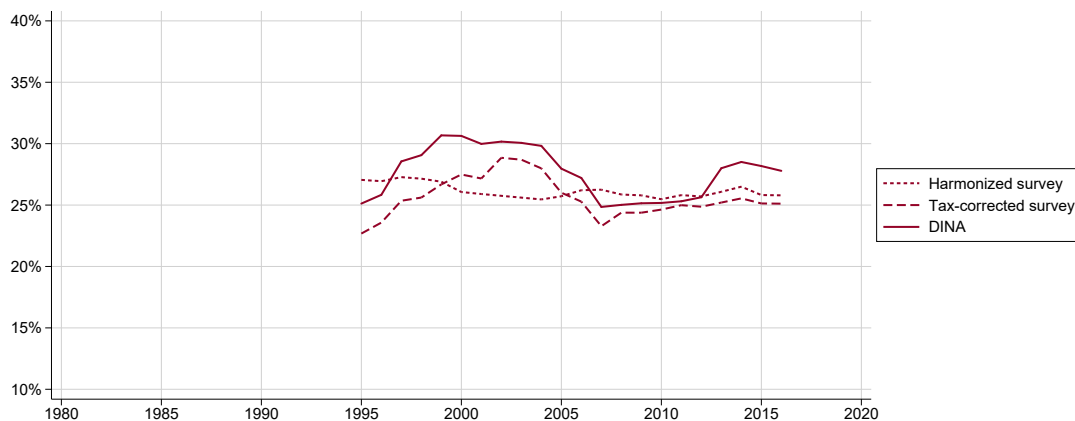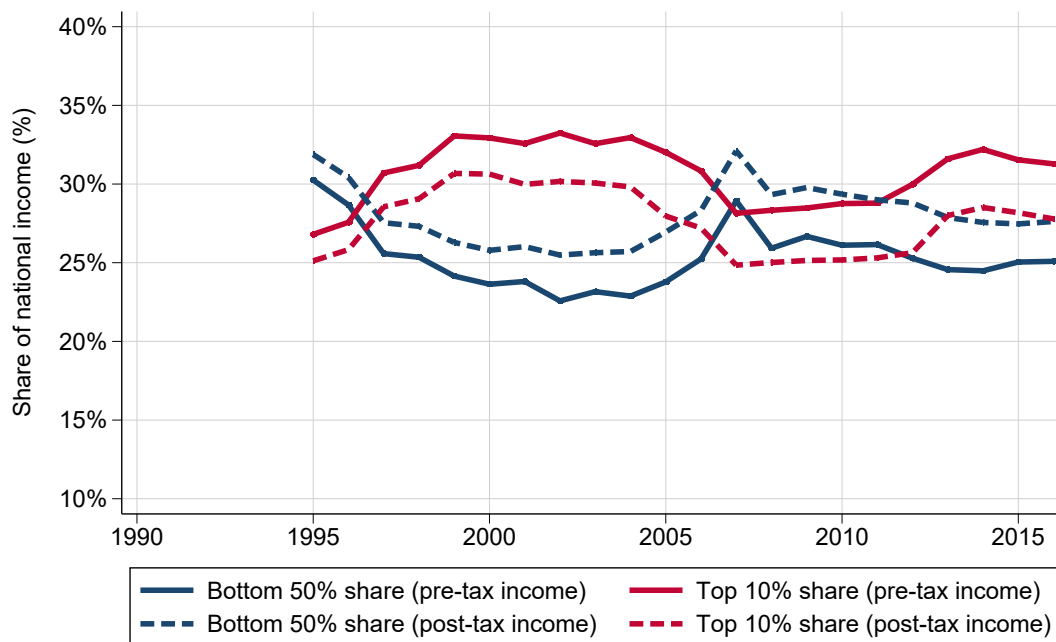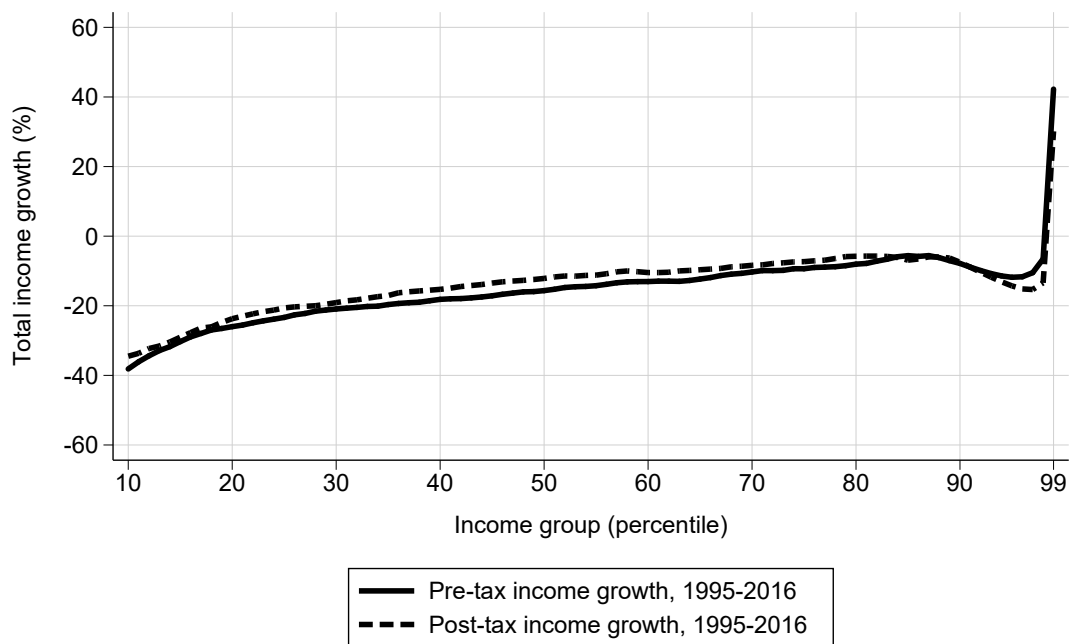(c) Top 10% post-tax income share: harmonized surveys vs. DINA

Figure D.32: Greece: main results

(a) Bottom 50% vs. Top 10% income shares

(b) Growth incidence curve

D.15 Hungary

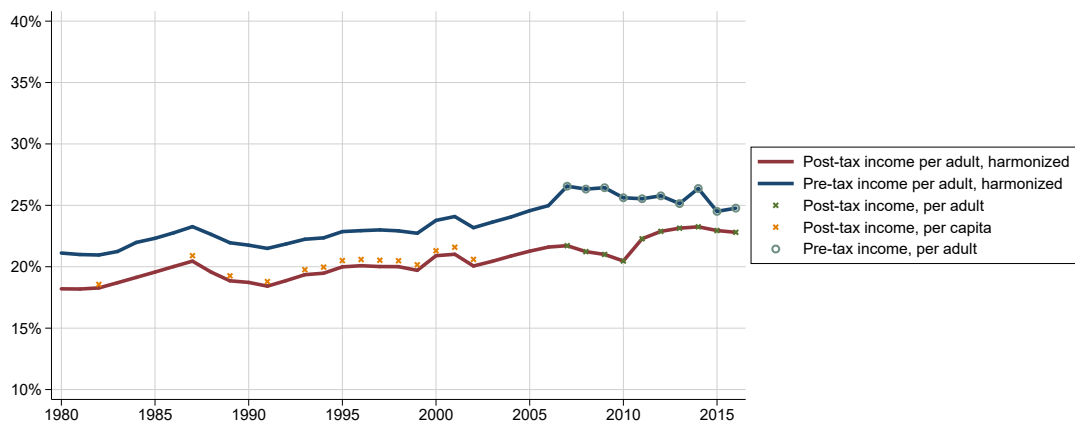Table D.20: Hungary: sources available by year

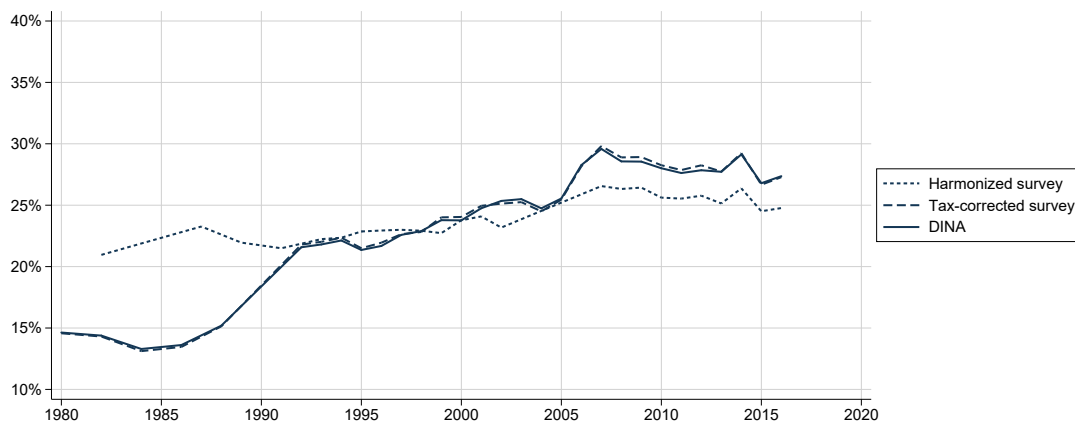| Year	Survey (tabulated)	Survey (microdata)	Tax data	Undistributed profits	Imputed rents
1980			x		
1981					
1982	x		x		
1983					
1984			x		
1985					
1986			x		
1987	x				
1988			x		
1989	x				
1990					
1991	x				
1992			x		
1993	x		x		
1994	x		x		
1995	x		x	x	x
1996	x		x	x	x
1997	x		x	x	x
1998	x		x	x	x
1999	x		x	x	x
2000	x		x	x	x
2001	x		x	x	x
2002	x		x	x	x
2003			x	x	x
2004			x	x	x
2005			x	x	x
2006			x	x	x
2007		x	x	x	x
2008		x	x	x	x
2009		x		x	x
2010		x		x	x
2011		x		x	x
2012		x		x	x
2013		x		x	x
2014		x		x	x
2015		x		x	x
2016		x		x	x
2017				x	x

Source: authors' computations.

Figure D.33: Hungary: from tabulated surveys to distributional national accounts

(a) Top 10% income share: tabulated vs. harmonized surveys

(b) Top 10% pre-tax income share: harmonized surveys vs. DINA

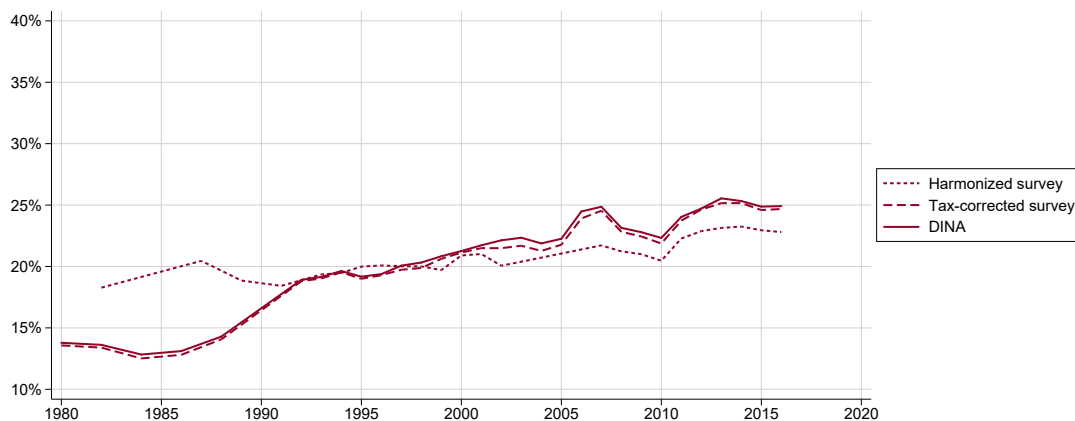(c) Top 10% post-tax income share: harmonized surveys vs. DINA

Figure D.34: Hungary: main results

(a) Bottom 50% vs. Top 10% income shares
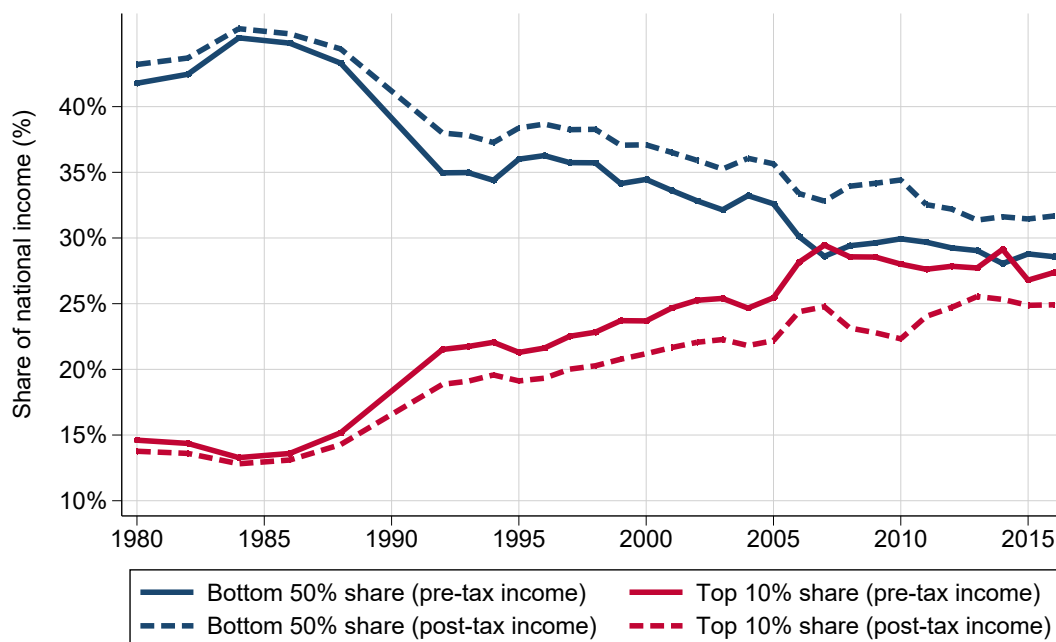
(b) Growth incidence curve
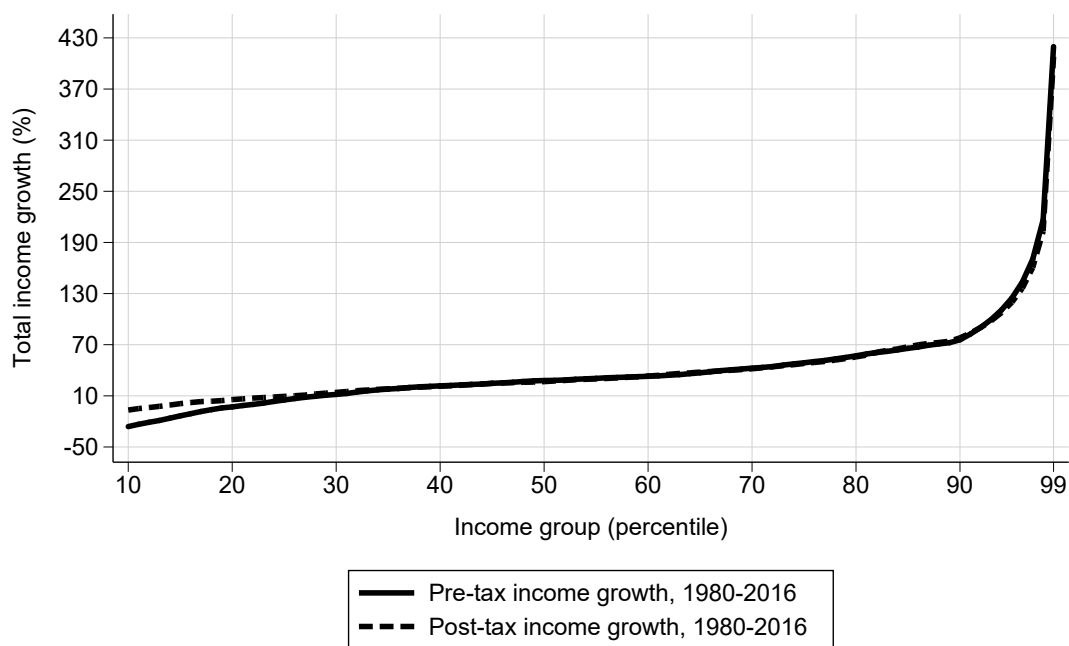
D.16   Iceland

Table D.21: Iceland: sources available by year

Year	Survey (tabulated)	Survey (microdata)	Tax data	Undistributed profits	Imputed rents
1980					
1981					
1982					
1983					
1984					
1985					
1986					
1987					
1988					
1989					
1990					
1991					
1992					
1993					
1994					
1995					
1996					
1997					
1998					
1999					
2000					
2001					
2002					
2003					
2004		x			
2005		x			x
2006		x			x
2007		x			x
2008		x			x
2009		x			x
2010		x			x
2011		x			x
2012		x			x
2013		x			x
2014		x			x
2015		x			
2016					
2017					

Source: authors' computations.

Figure D.35: Iceland: from tabulated surveys to distributional national accounts

(a) Top 10% income share: tabulated vs. harmonized surveys

(b) Top 10% pre-tax income share: harmonized surveys vs. DINA

(c) Top 10% post-tax income share: harmonized surveys vs. DINA

Figure D.36: Iceland: main results

(a) Bottom 50% vs. Top 10% income shares
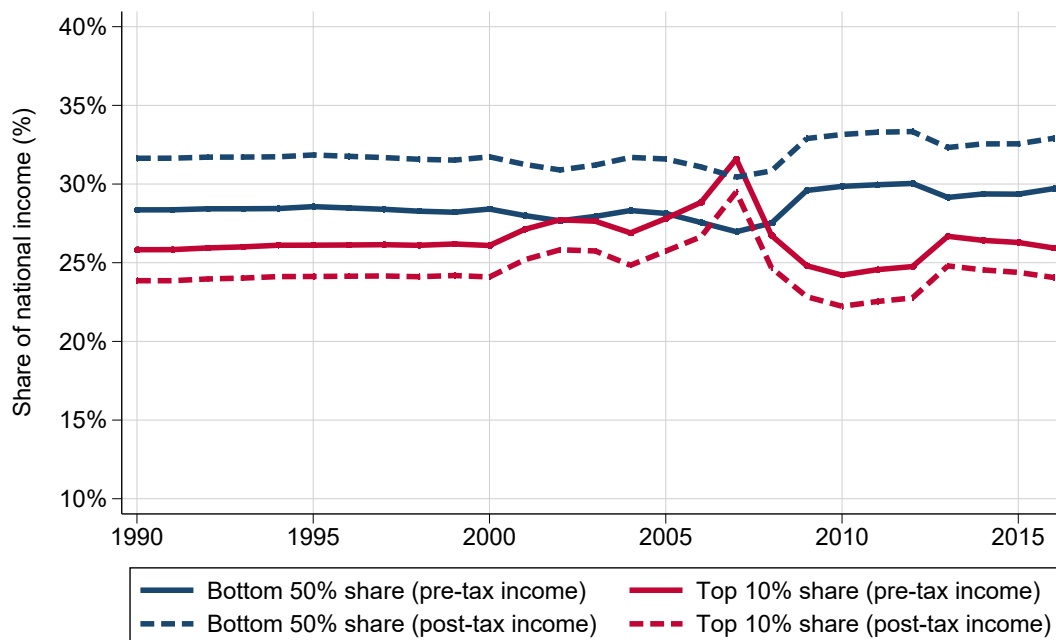
(b) Growth incidence curve
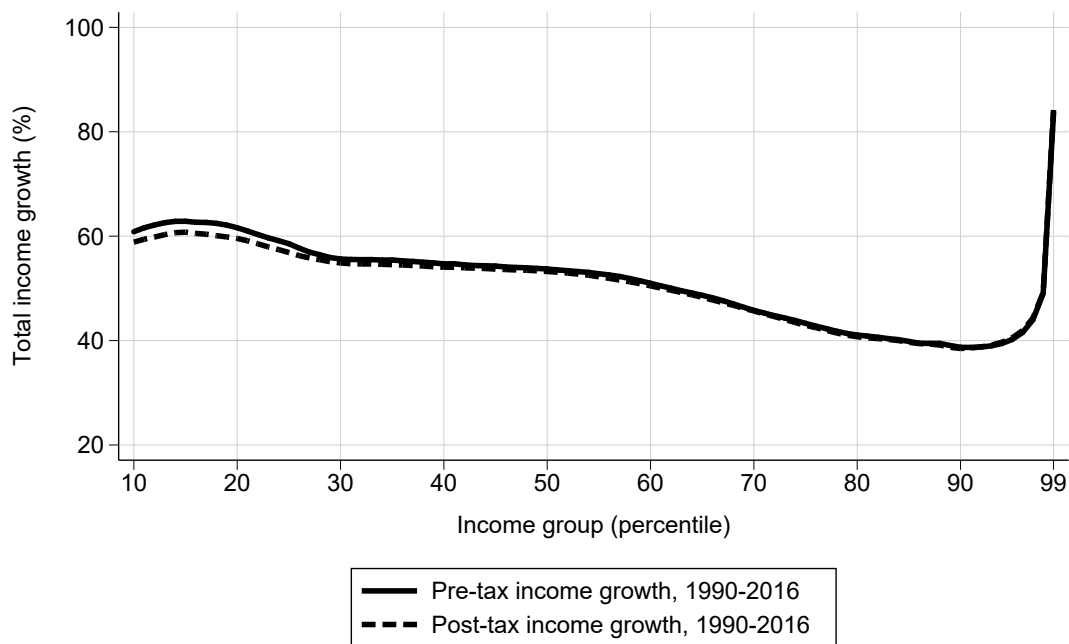
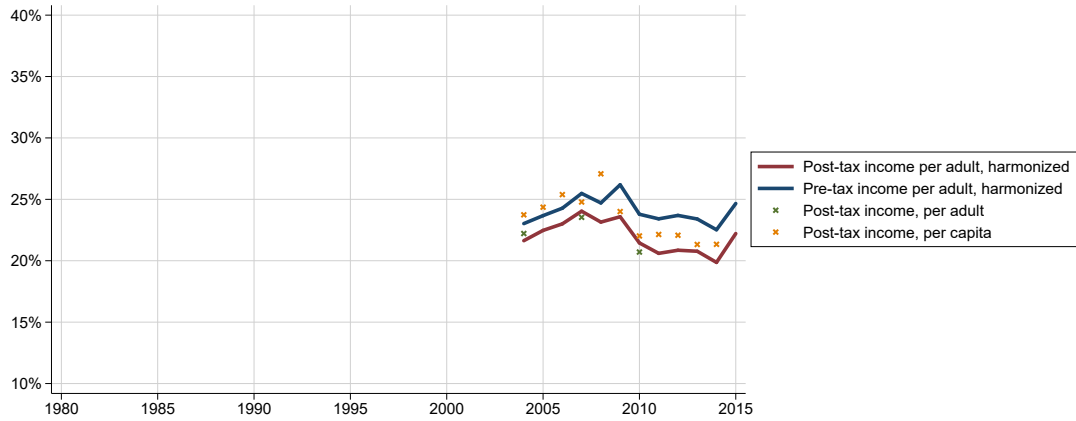## D.17 Ireland

Table D.22: Ireland: sources available by year

Year	Survey (tabulated)	Survey (microdata)	Tax data	Undistributed profits	Imputed rents
1980	x		x		
1981			x		
1982			x		
1983			x		
1984			x		
1985			x		
1986			x		
1987	x		x		
1988			x		
1989			x		
1990			x		
1991			x		
1992			x		
1993			x		
1994		x	x		
1995		x	x		x
1996		x	x		x
1997		x	x		x
1998			x		x
1999			x		x
2000		x	x		x
2001			x	x	x
2002			x	x	x
2003			x	x	x
2004		x	x	x	x
2005		x	x	x	x
2006		x	x	x	x
2007		x	x	x	x
2008		x	x	x	x
2009		x	x	x	x
2010		x	x	x	x
2011		x	x	x	x
2012		x	x	x	x
2013		x	x	x	x
2014		x	x	x	x
2015		x	x	x	x
2016		x		x	x
2017				x	x

Source: authors' computations.
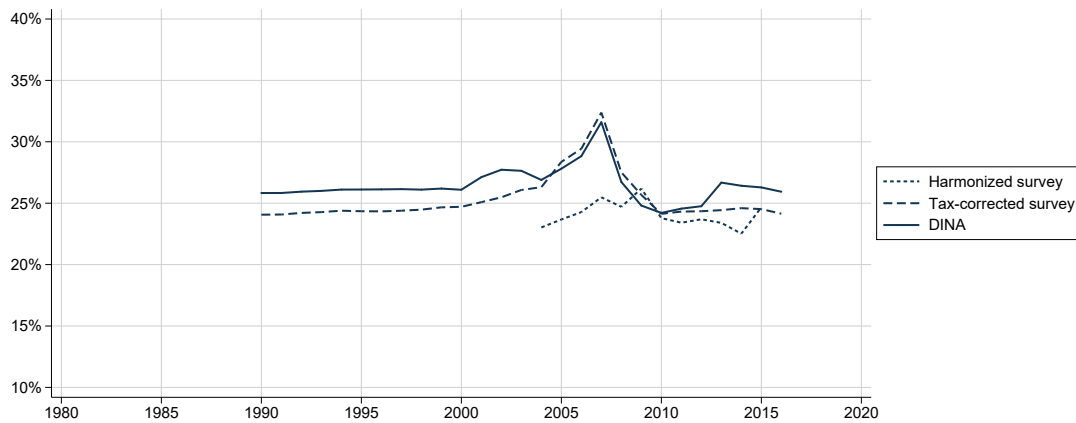
Figure D.37: Ireland: from tabulated surveys to distributional national accounts

(a) Top 10% income share: tabulated vs. harmonized surveys

(b) Top 10% pre-tax income share: harmonized surveys vs. DINA
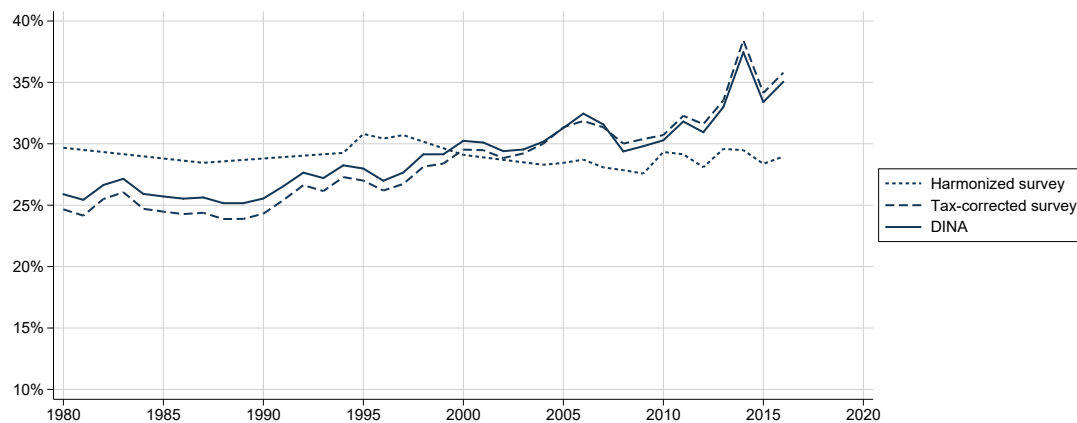
(c) Top 10% post-tax income share: harmonized surveys vs. DINA
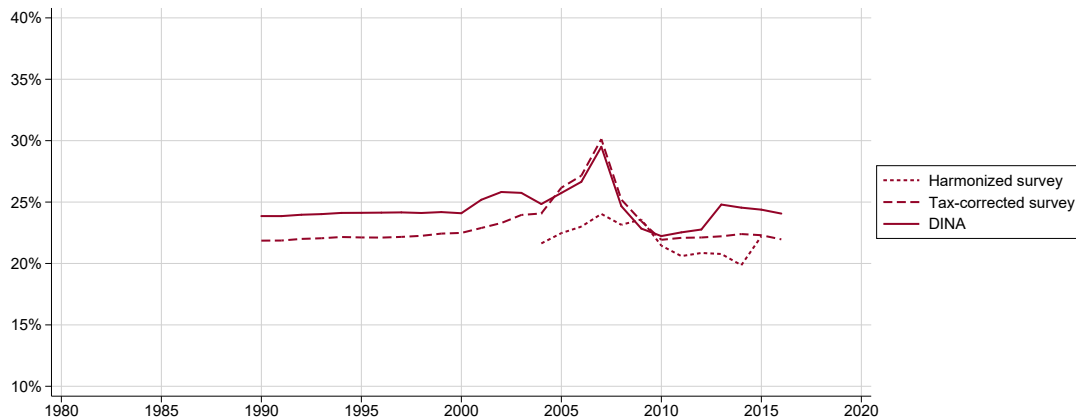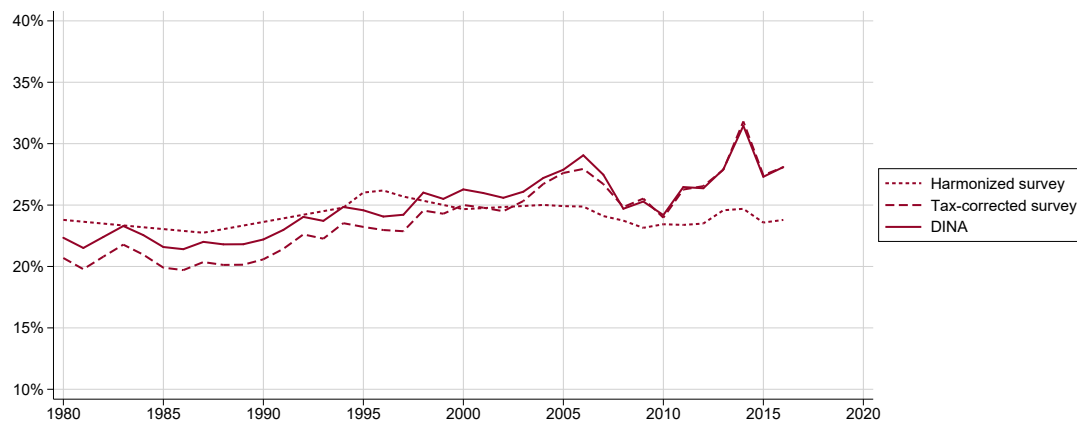
Figure D.38: Ireland: main results

(a) Bottom 50% vs. Top 10% income shares
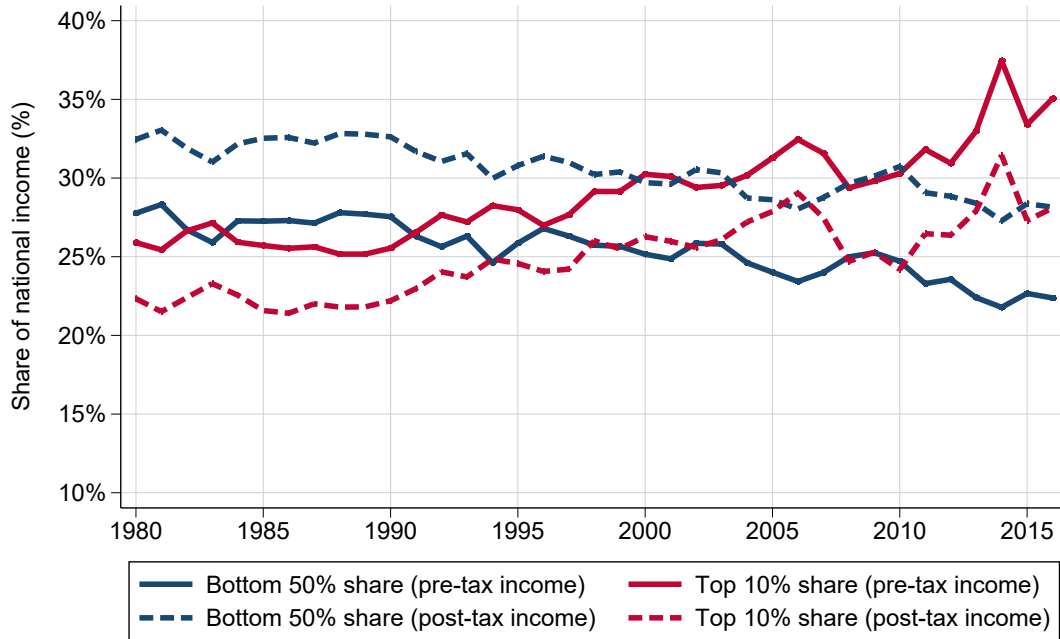
(b) Growth incidence curve
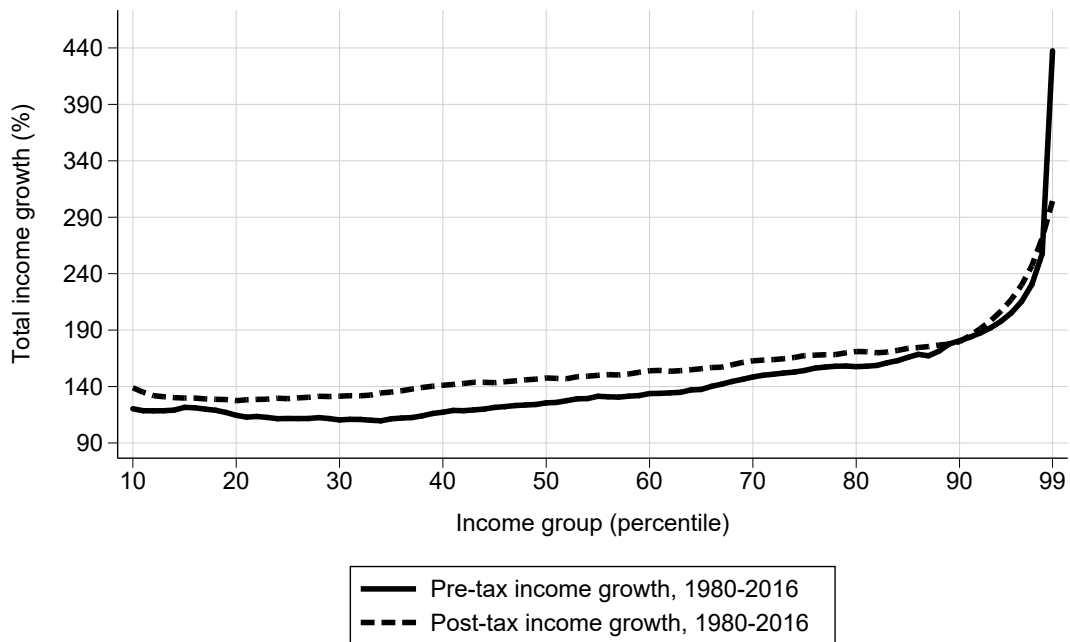
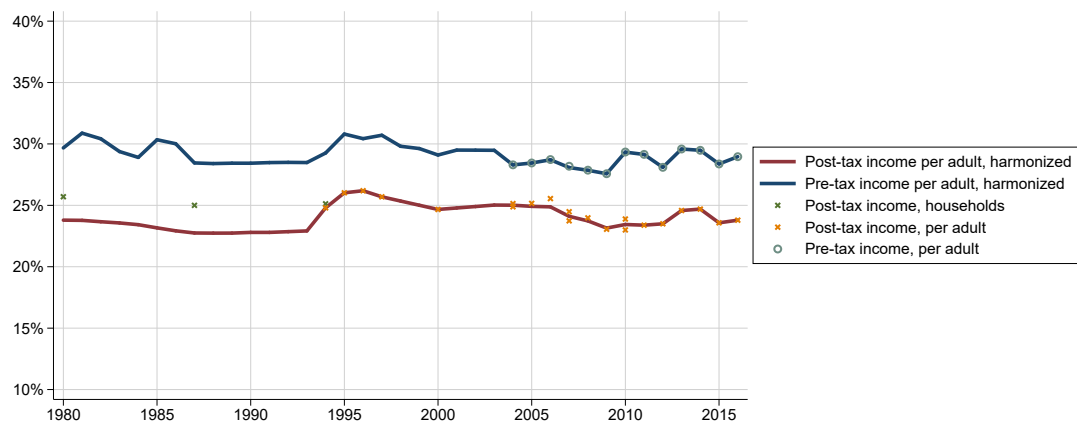## D.18   Italy

Table D.23: Italy: sources available by year

Year	Survey (tabulated)	Survey (microdata)	Tax data	Undistributed profits	Imputed rents
1980			x		x
1981	x		x		x
1982	x		x		x
1983			x		x
1984			x		x
1985			x		x
1986		x	x		x
1987		x	x		x
1988			x		x
1989		x	x		x
1990			x		x
1991		x	x		x
1992			x		x
1993		x	x		x
1994		x	x		x
1995		x	x	x	x
1996		x		x	x
1997		x		x	x
1998		x	x	x	x
1999		x	x	x	x
2000		x	x	x	x
2001		x	x	x	x
2002	x		x	x	x
2003			x	x	x
2004		x	x	x	x
2005		x	x	x	x
2006		x	x	x	x
2007		x	x	x	x
2008		x	x	x	x
2009		x	x	x	x
2010		x		x	x
2011		x		x	x
2012		x		x	x
2013		x		x	x
2014		x		x	x
2015		x		x	x
2016		x		x	x
2017				x	x

Source: authors' computations.

Figure D.39: Italy: from tabulated surveys to distributional national accounts

(a) Top 10% income share: tabulated vs. harmonized surveys

(b) Top 10% pre-tax income share: harmonized surveys vs. DINA

(c) Top 10% post-tax income share: harmonized surveys vs. DINA
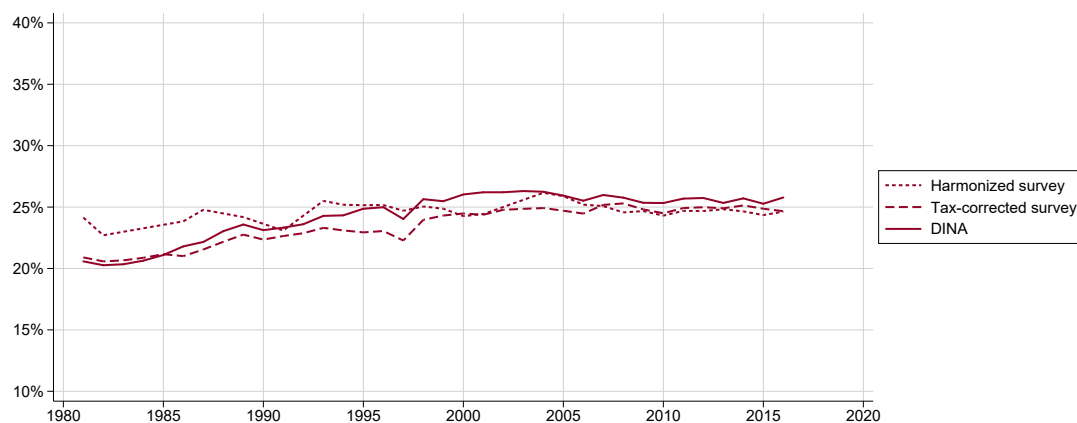
Figure D.40: Italy: main results

(a) Bottom 50% vs. Top 10% income shares
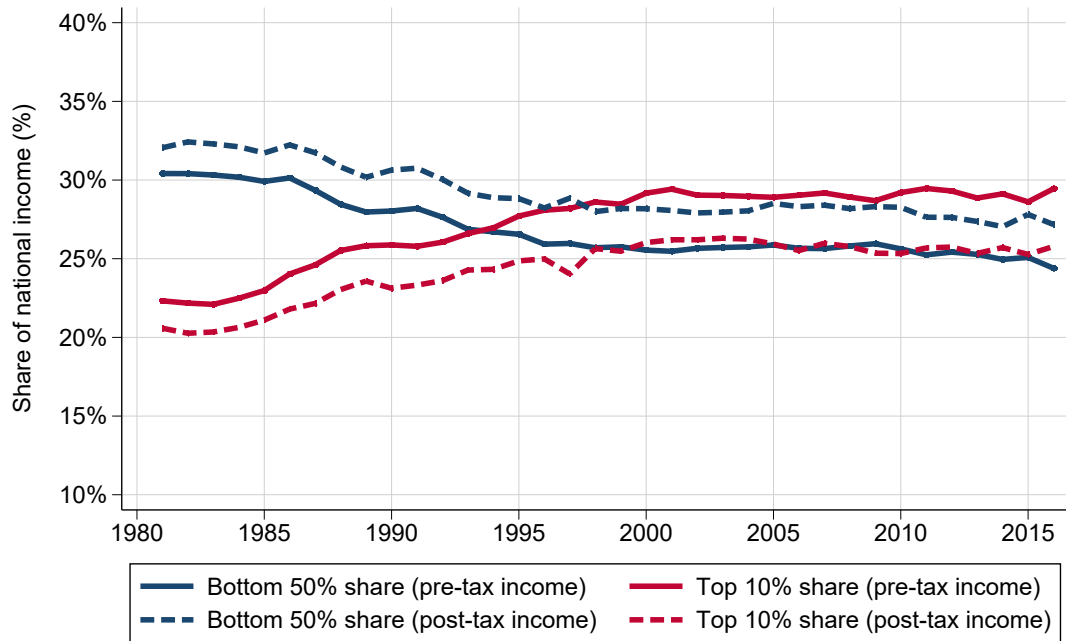
(b) Growth incidence curve
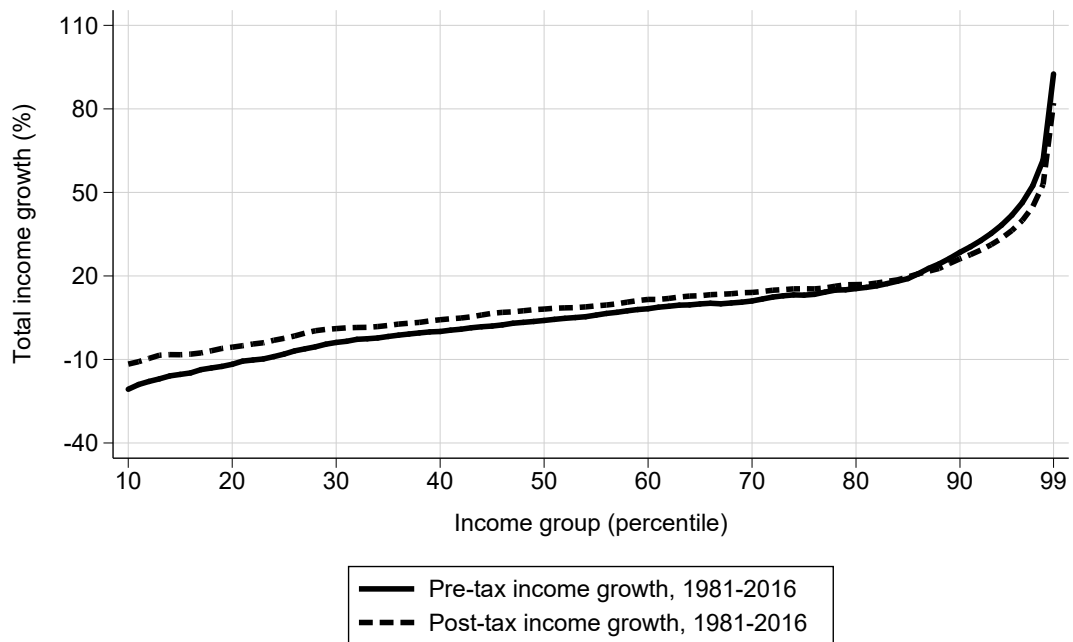
D.19 Kosovo

Table D.24: Kosovo: sources available by year

Year	Survey (tabulated)	Survey (microdata)	Tax data	Undistributed profits	Imputed rents
1999					
2000					
2001					
2002					
2003	x				
2004					
2005	x				
2006	x				
2007					
2008	x				
2009	x				
2010	x				
2011	x				
2012	x				
2013	x				
2014					
2015					
2016					
2017					

Source: authors' computations.

Figure D.41: Kosovo: from tabulated surveys to distributional national accounts

(a) Top 10% income share: tabulated vs. harmonized surveys
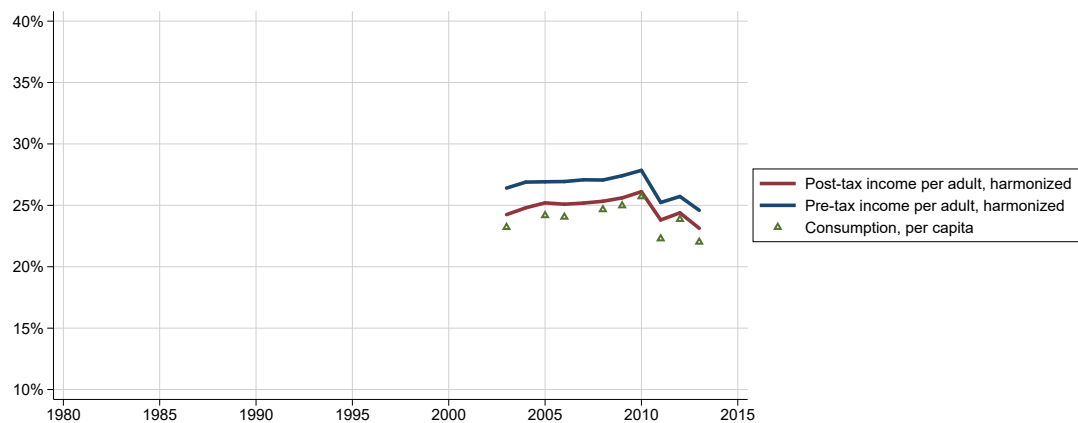
(b) Top 10% pre-tax income share: harmonized surveys vs. DINA

(c) Top 10% post-tax income share: harmonized surveys vs. DINA

Figure D.42: Kosovo: main results

(a) Bottom 50% vs. Top 10% income shares

(b) Growth incidence curve

D.20   Latvia

Table D.25: Latvia: sources available by year
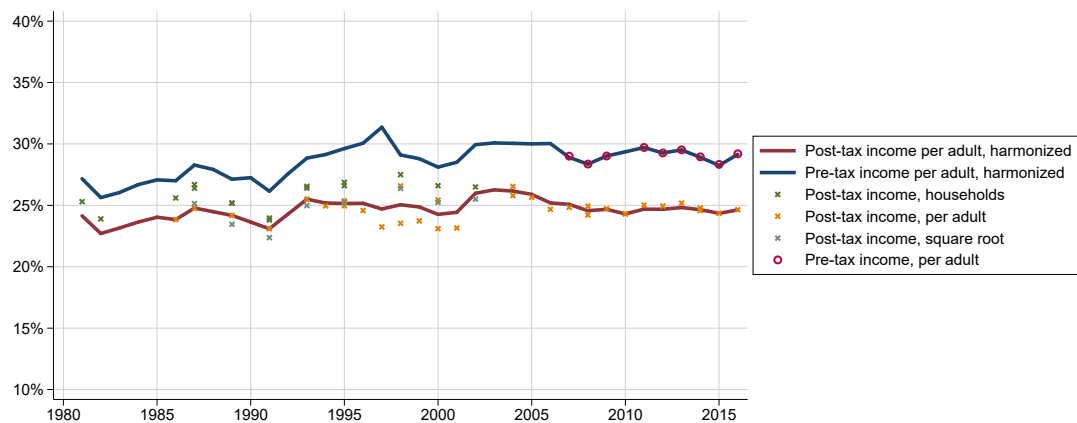
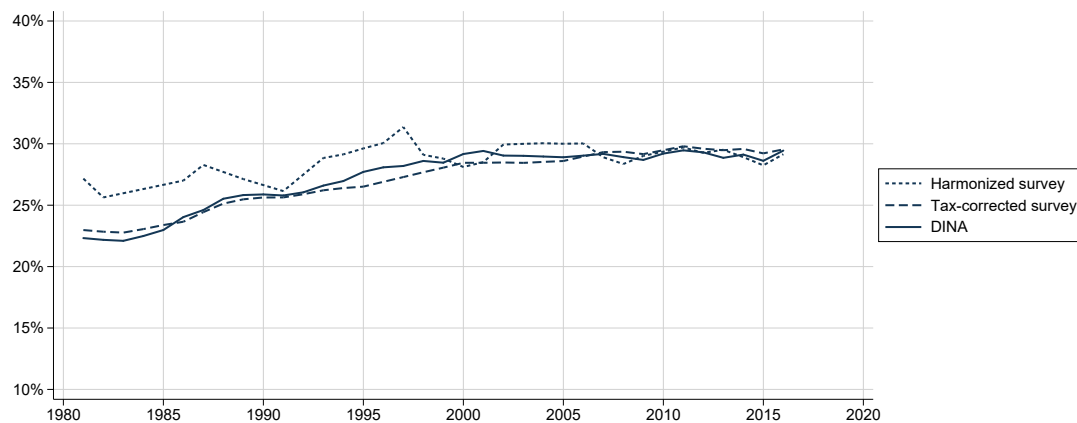| Year	Survey (tabulated)	Survey (microdata)	Tax data	Undistributed profits	Imputed rents
1980					
1981					
1982					
1983					
1984					
1985					
1986					
1987					
1988	x				
1989					
1990					
1991					
1992					
1993	x				
1994				x	
1995	x			x	x
1996	x			x	x
1997	x			x	x
1998	x			x	x
1999	x			x	x
2000	x			x	x
2001				x	x
2002	x			x	x
2003	x			x	x
2004	x			x	x
2005		x		x	x
2006		x		x	x
2007		x		x	x
2008		x		x	x
2009		x		x	x
2010		x		x	x
2011		x		x	x
2012		x		x	x
2013		x		x	x
2014		x		x	x
2015		x		x	x
2016		x		x	x
2017				x	x

Source: authors' computations.

Figure D.43: Latvia: from tabulated surveys to distributional national accounts

(a) Top 10% income share: tabulated vs. harmonized surveys

(b) Top 10% pre-tax income share: harmonized surveys vs. DINA

(c) Top 10% post-tax income share: harmonized surveys vs. DINA
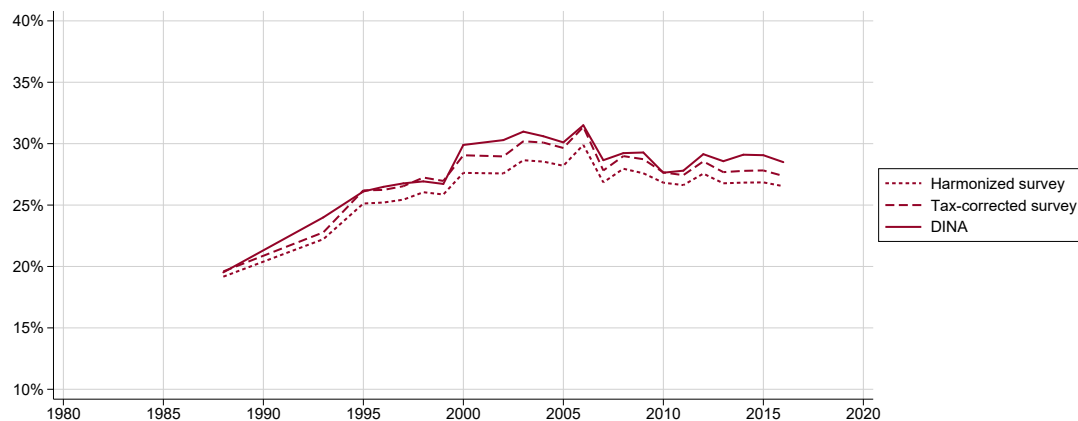
Figure D.44: Latvia: main results

(a) Bottom 50% vs. Top 10% income shares
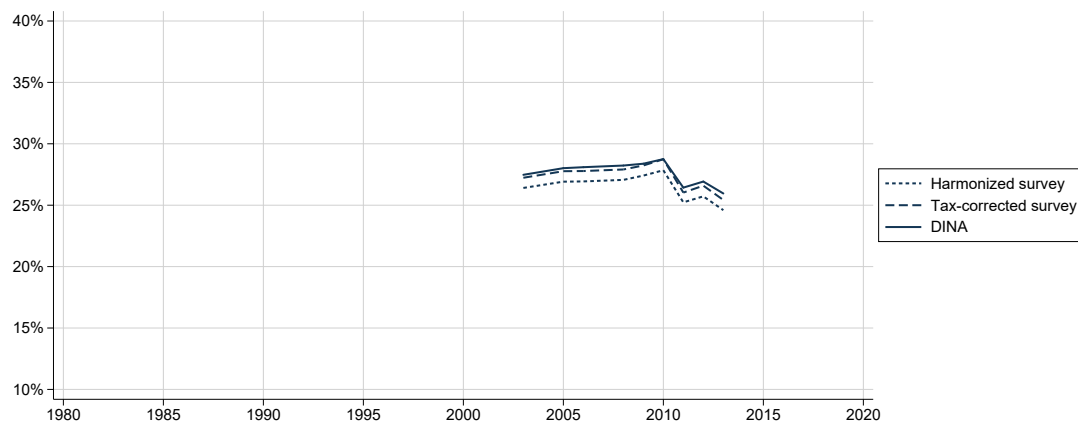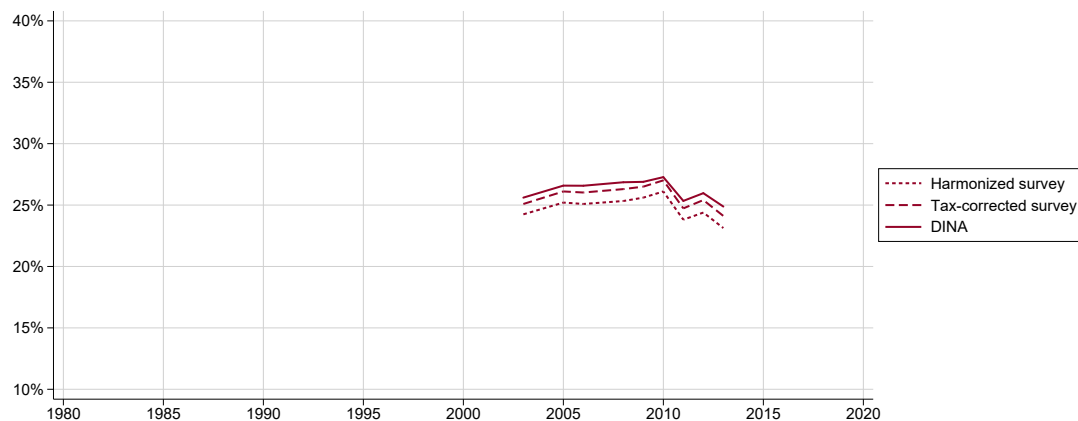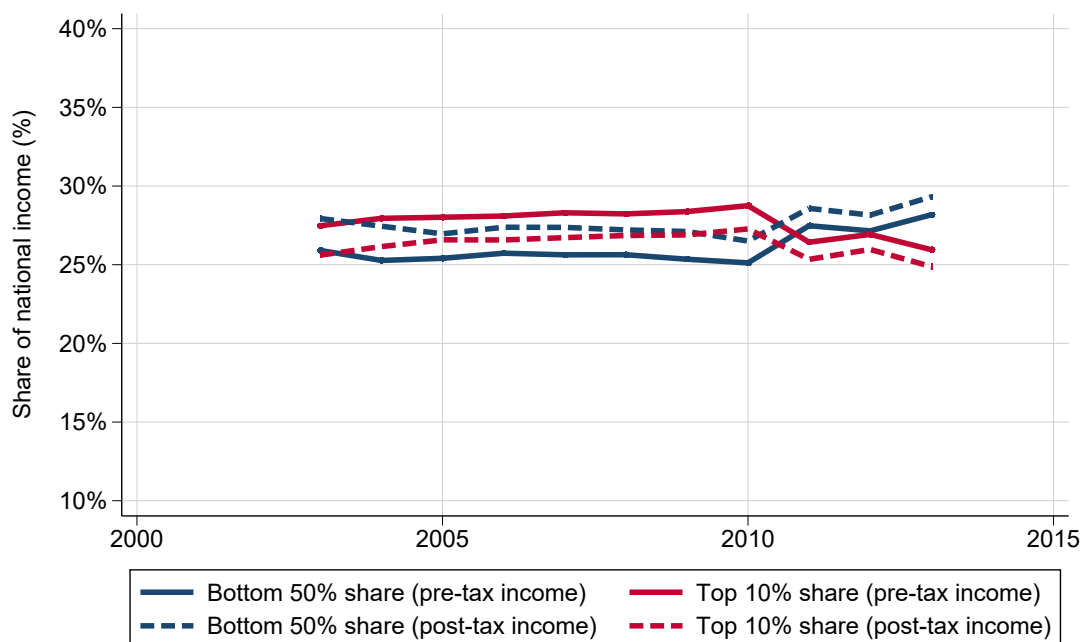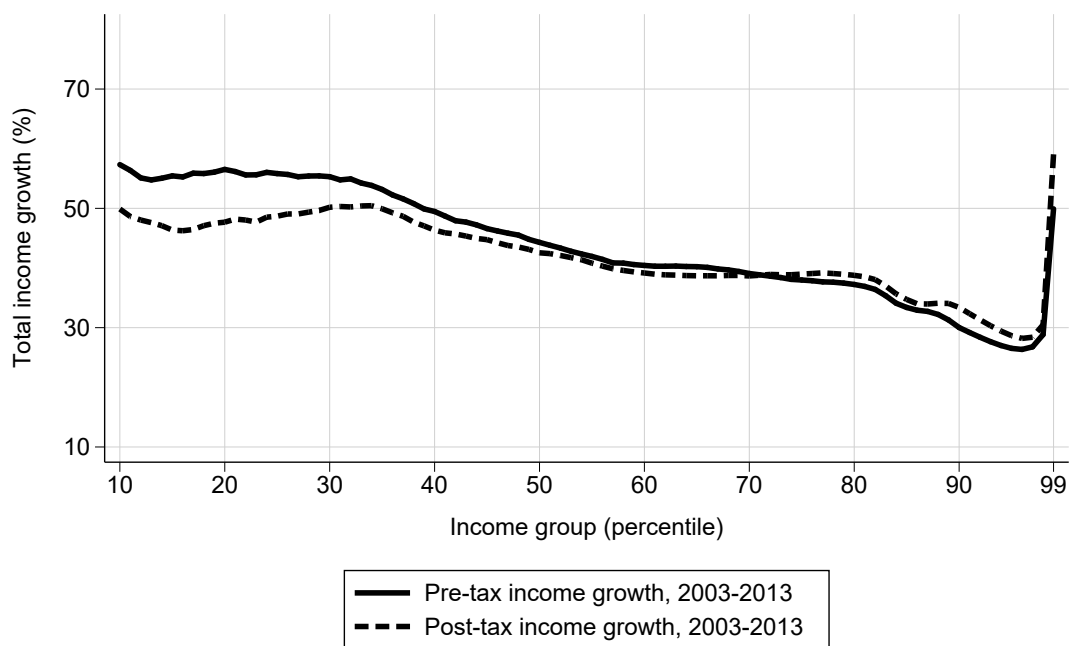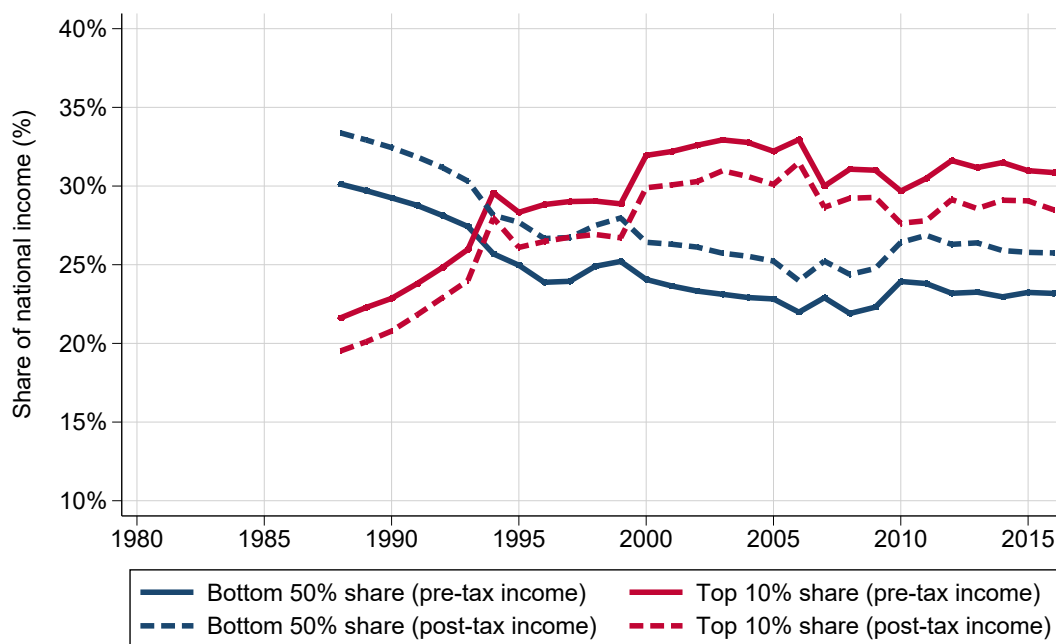

(b) Growth incidence curve
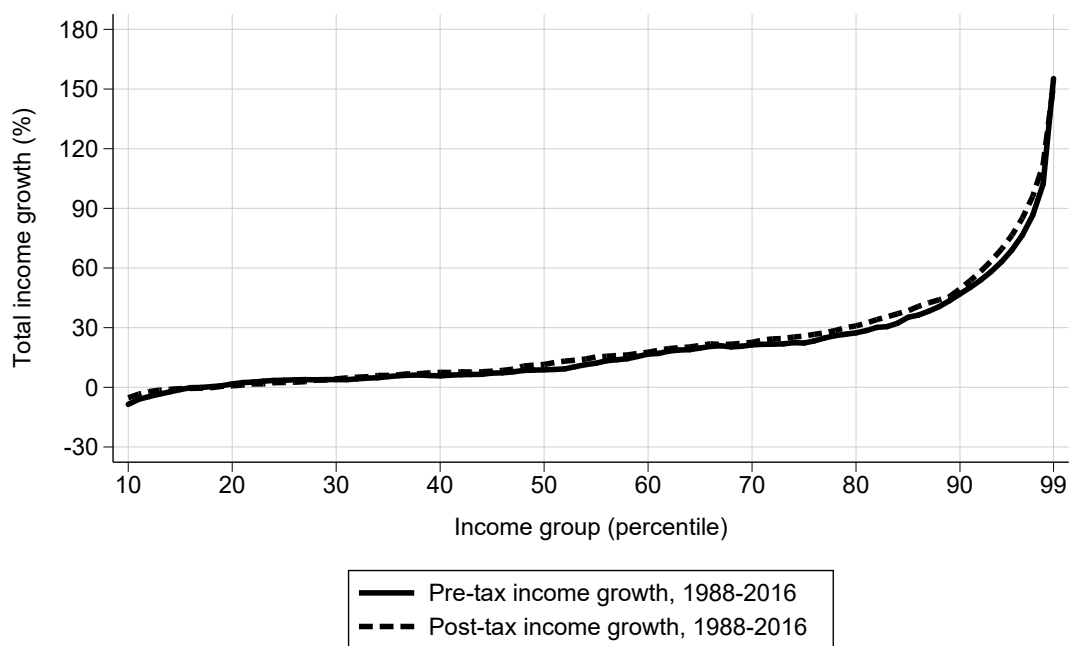
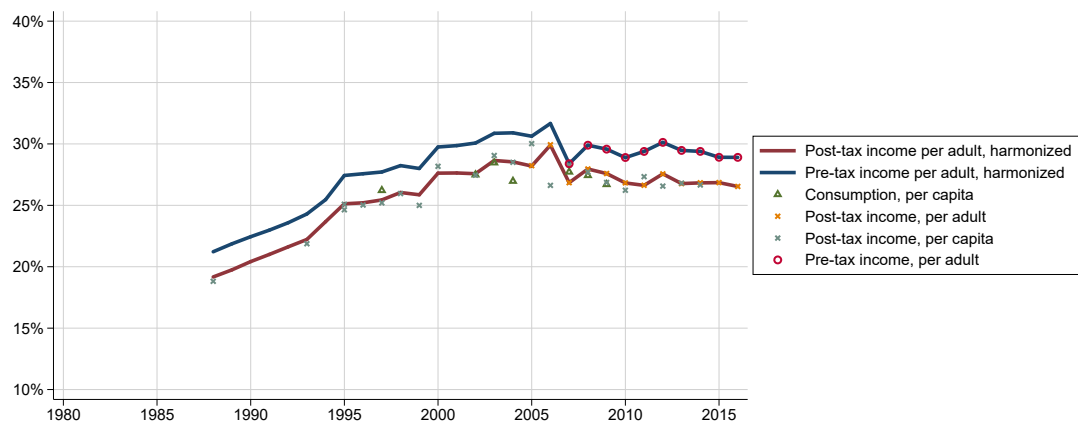## D.21 Lithuania

Table D.26: Lithuania: sources available by year

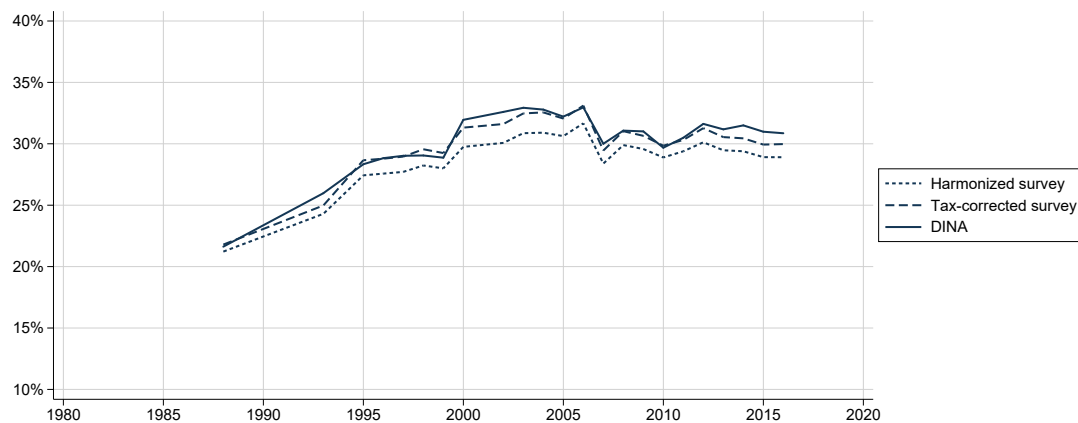| Year	Survey (tabulated)	Survey (microdata)	Tax data	Undistributed profits	Imputed rents
1980					
1981					
1982					
1983					
1984					
1985					
1986					
1987					
1988	x				
1989					
1990					
1991					
1992					
1993	x				
1994					
1995				x	x
1996				x	x
1997				x	x
1998				x	x
1999				x	x
2000				x	x
2001				x	x
2002				x	x
2003				x	x
2004	x			x	x
2005		x		x	x
2006		x		x	x
2007		x		x	x
2008		x		x	x
2009		x		x	x
2010		x		x	x
2011		x		x	x
2012		x		x	x
2013		x		x	x
2014		x		x	x
2015		x		x	x
2016		x		x	x
2017				x	x

Source: authors' computations.

Appendix

Figure D.45: Lithuania: from tabulated surveys to distributional national accounts

(a) Top 10% income share: tabulated vs. harmonized surveys

(b) Top 10% pre-tax income share: harmonized surveys vs. DINA

(c) Top 10% post-tax income share: harmonized surveys vs. DINA
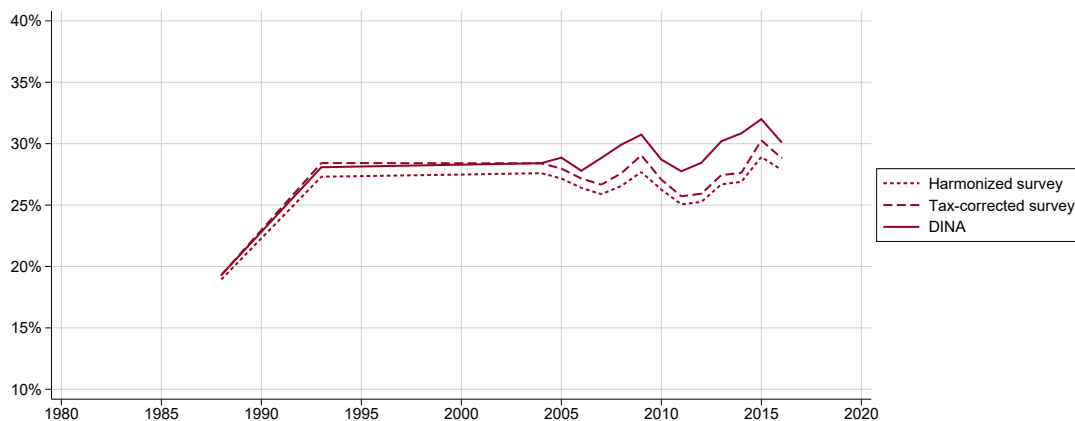
Figure D.46: Lithuania: main results

(a) Bottom 50% vs. Top 10% income shares
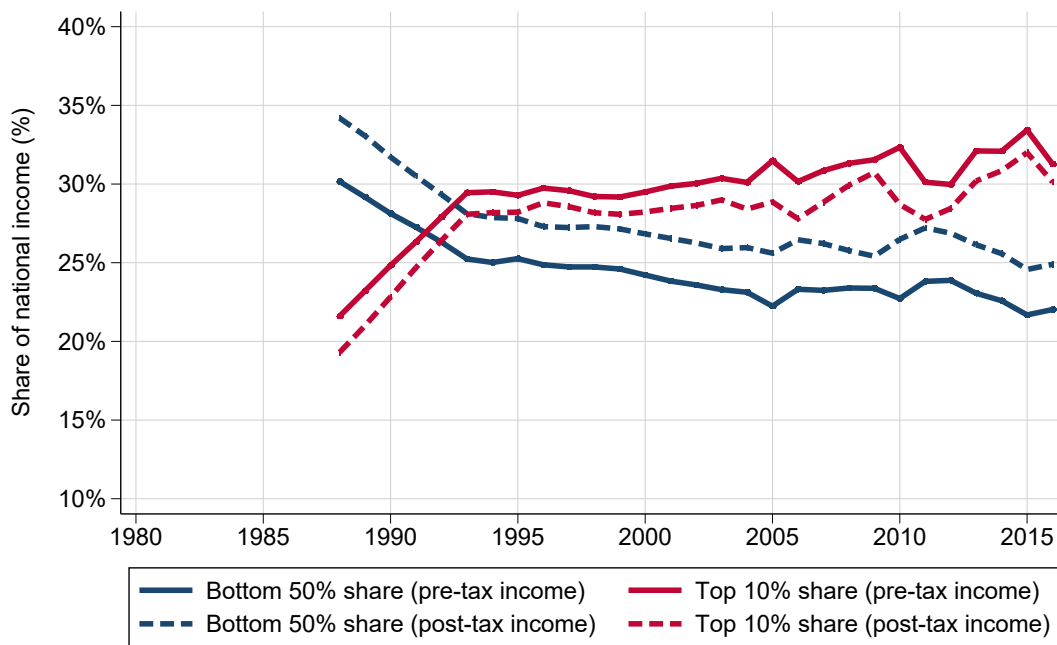
(b) Growth incidence curve
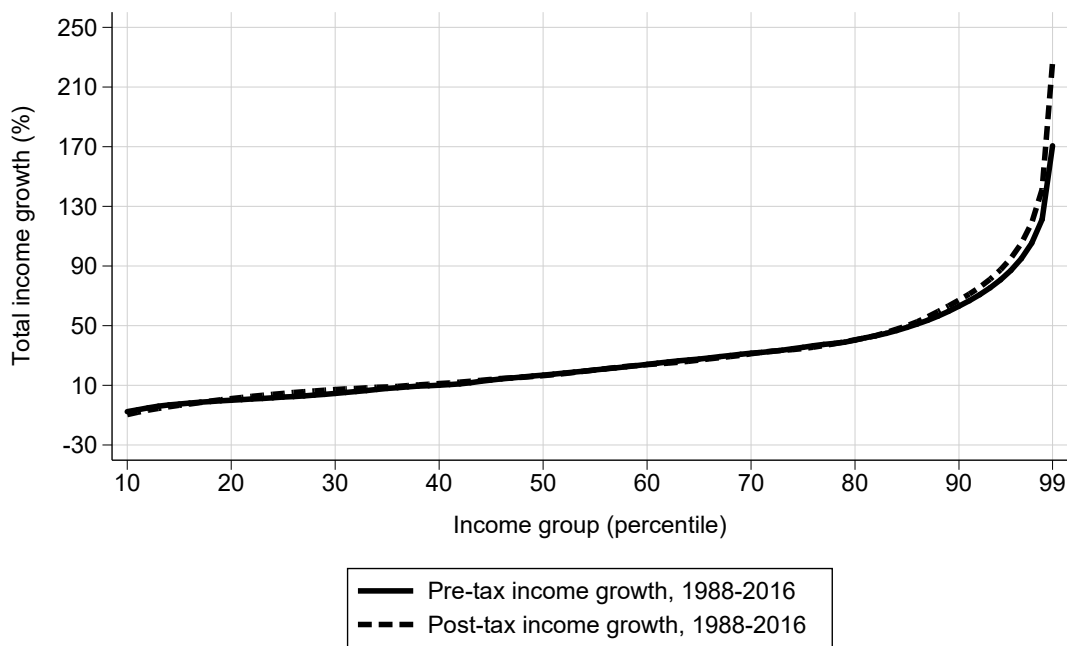
D.22 Luxembourg

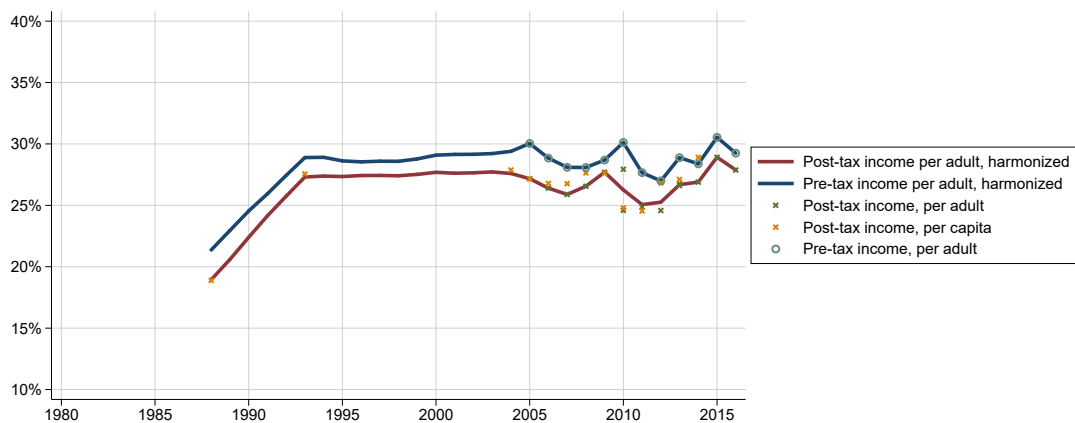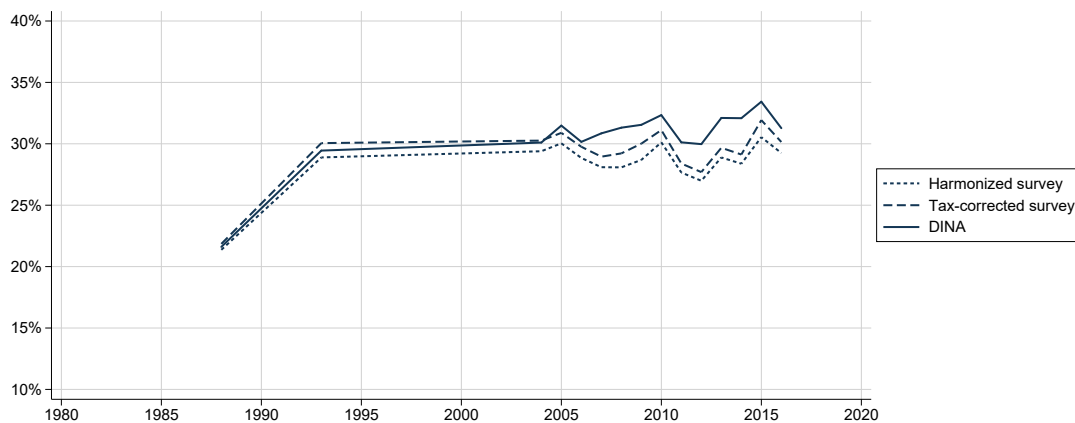Table D.27: Luxembourg: sources available by year

Year	Survey (tabulated)	Survey (microdata)	Tax data	Undistributed profits	Imputed rents
1980					
1981					
1982					
1983					
1984					
1985		x			
1986					
1987					
1988					
1989					
1990					
1991		x			
1992					
1993					
1994		x			
1995					x
1996					x
1997		x			x
1998					x
1999				x	x
2000		x		x	x
2001				x	x
2002				x	x
2003				x	x
2004		x		x	x
2005		x		x	x
2006		x		x	x
2007		x		x	x
2008		x		x	x
2009		x		x	x
2010		x		x	x
2011		x		x	x
2012		x		x	x
2013		x		x	x
2014		x		x	x
2015		x		x	x
2016		x		x	x
2017					x

Source: authors' computations.

Figure D.47: Luxembourg: from tabulated surveys to distributional national accounts

(a) Top 10% income share: tabulated vs. harmonized surveys

(b) Top 10% pre-tax income share: harmonized surveys vs. DINA

(c) Top 10% post-tax income share: harmonized surveys vs. DINA
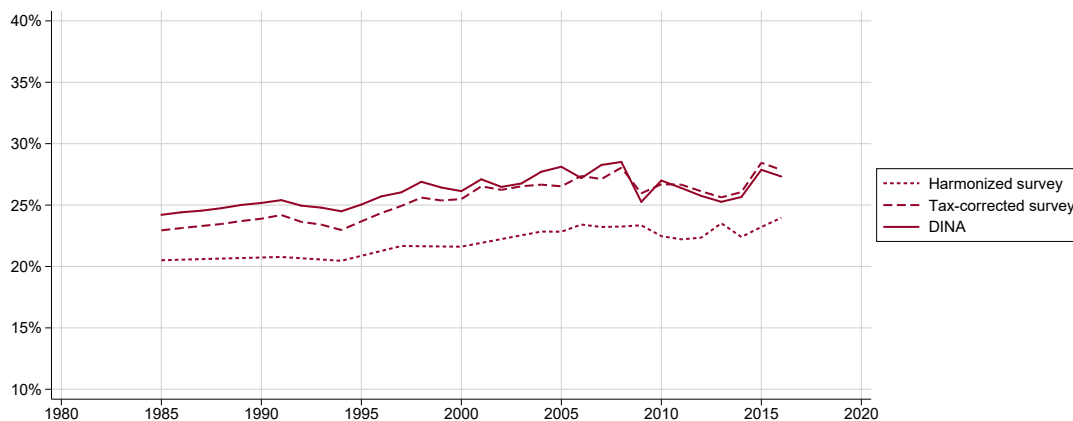
Figure D.48: Luxembourg: main results

(a) Bottom 50% vs. Top 10% income shares
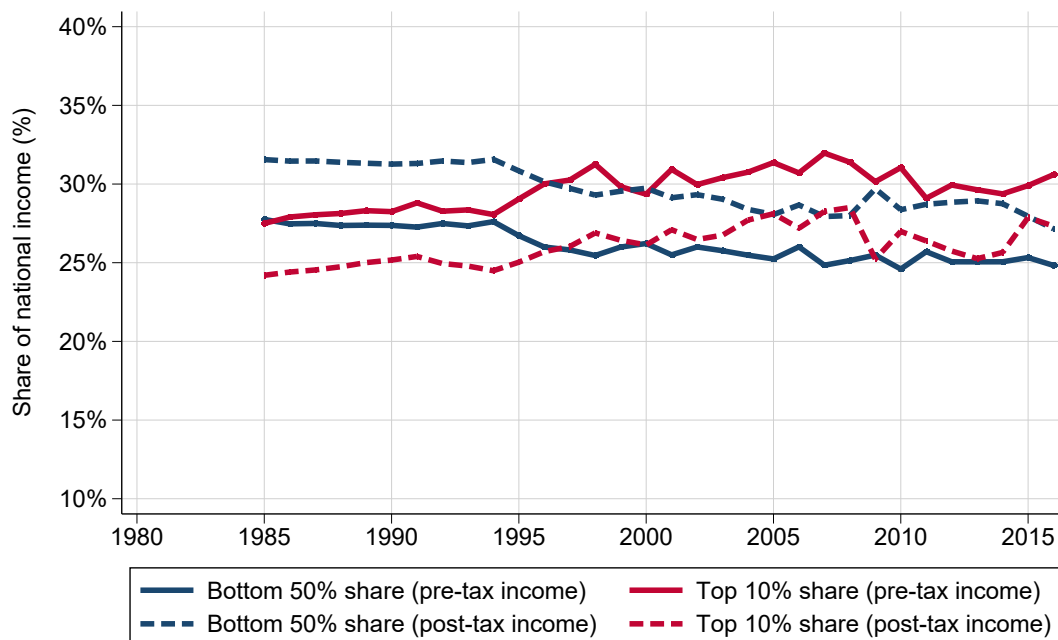
(b) Growth incidence curve
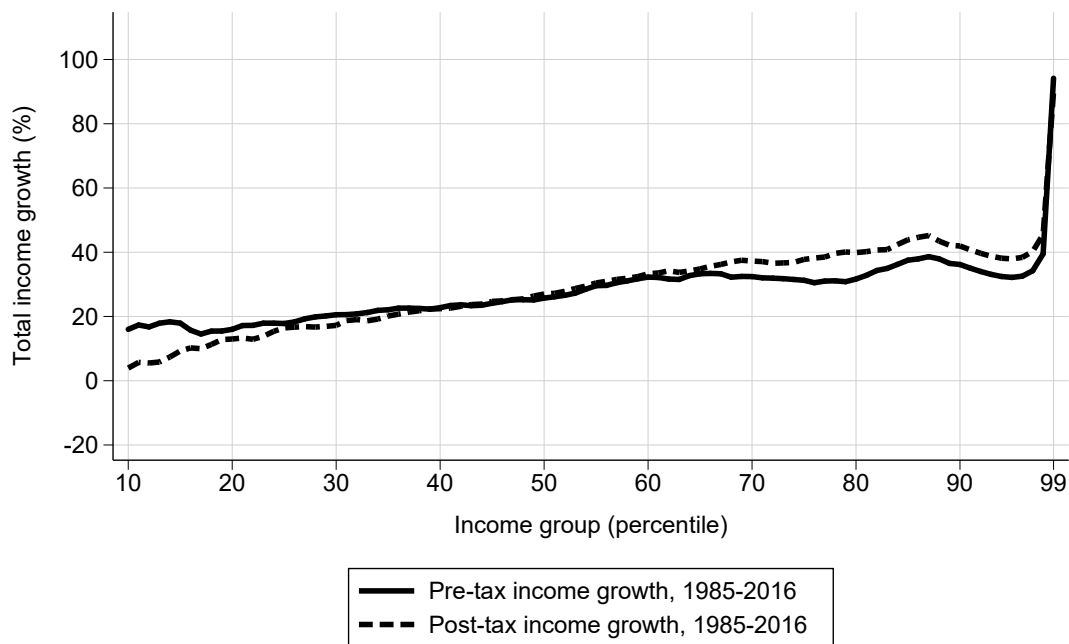
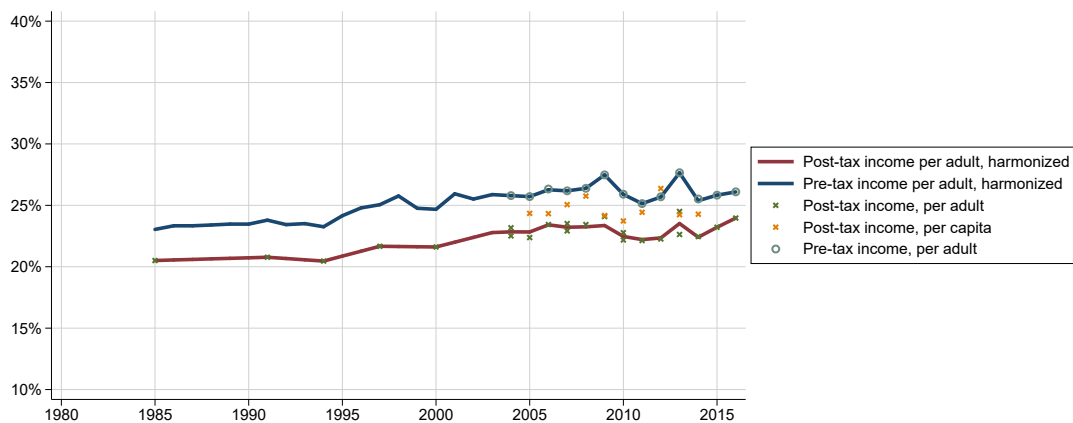## D.23 Macedonia

Table D.28: Macedonia: sources available by year

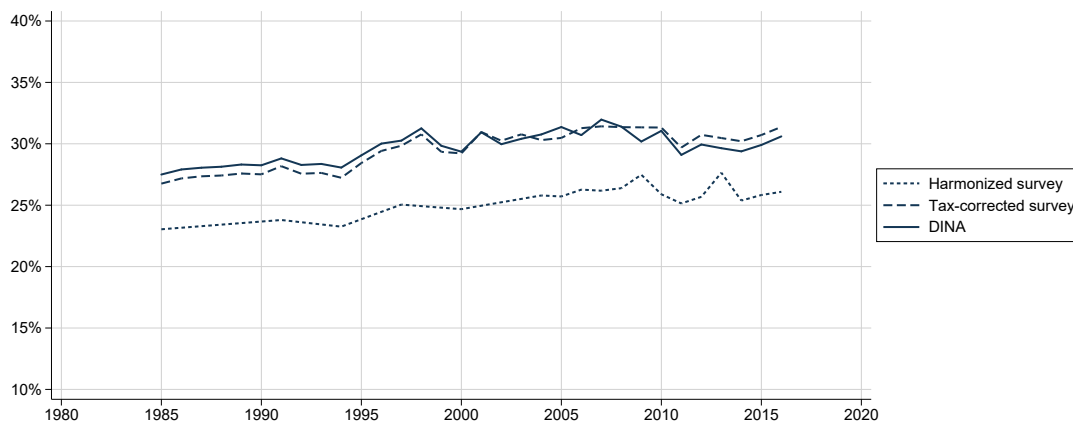| Year	Survey (tabulated)	Survey (microdata)	Tax data	Undistributed profits	Imputed rents
1980					
1981					
1982					
1983	x				
1984	x				
1985	x				
1986	x				
1987	x				
1988	x				
1989					
1990	x				
1991					
1992					
1993					
1994					
1995	x				
1996	x				
1997					
1998					
1999	x				
2000	x				
2001	x				
2002	x				
2003					
2004					
2005					
2006					
2007					
2008					
2009					
2010	x				
2011	x				
2012	x				
2013	x				
2014	x				
2015					
2016					
2017					

Source: authors' computations.

Figure D.49: Macedonia: from tabulated surveys to distributional national accounts

(a) Top 10% income share: tabulated vs. harmonized surveys

(b) Top 10% pre-tax income share: harmonized surveys vs. DINA

(c) Top 10% post-tax income share: harmonized surveys vs. DINA
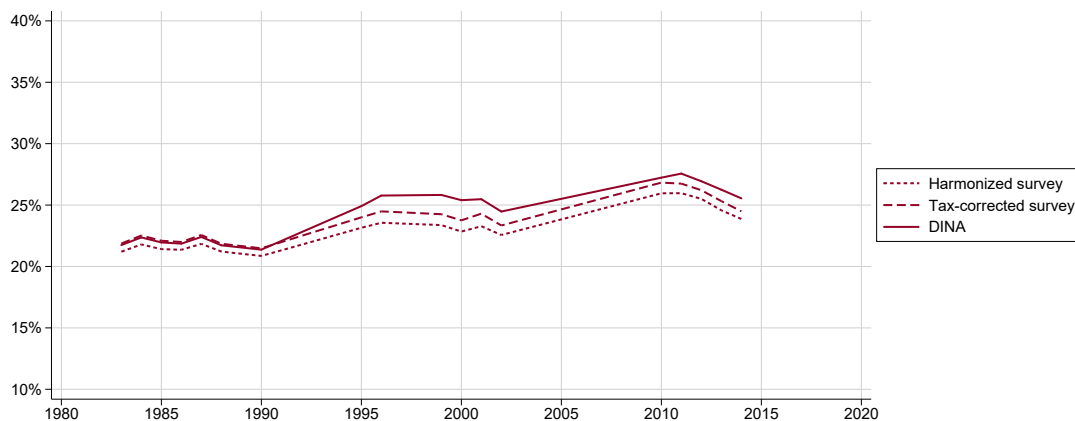
Figure D.50: Macedonia: main results

(a) Bottom 50% vs. Top 10% income shares
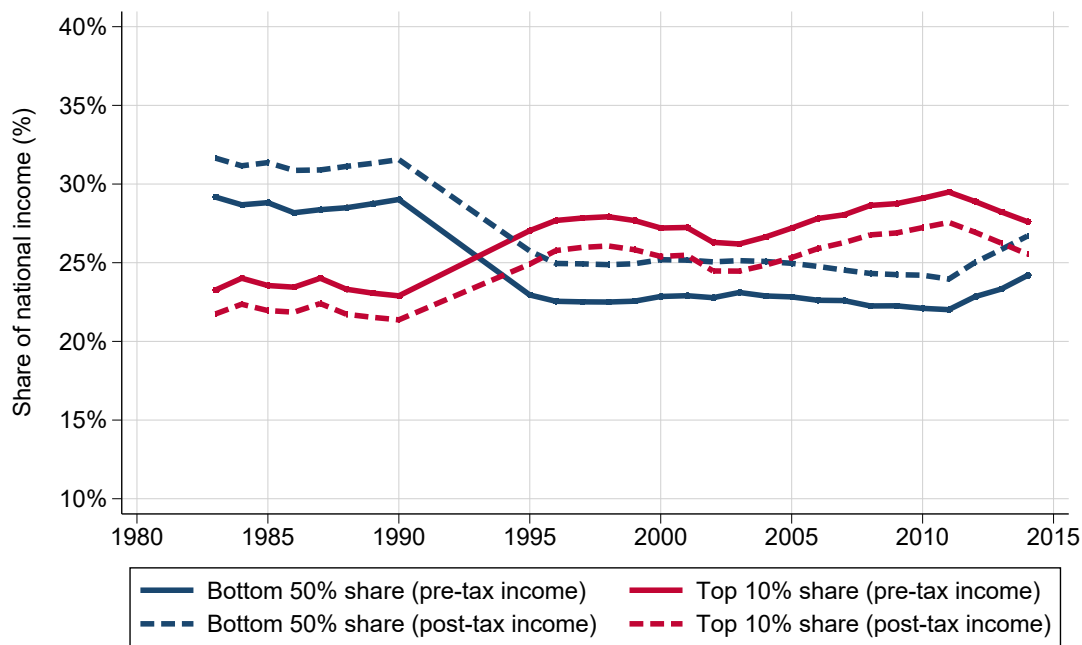
(b) Growth incidence curve
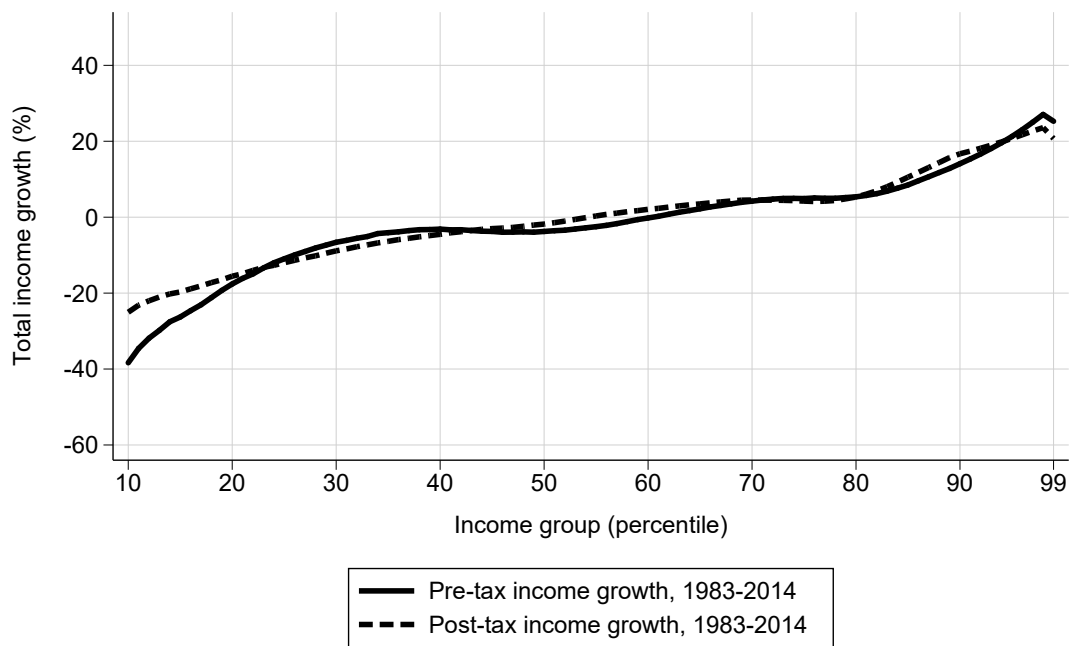
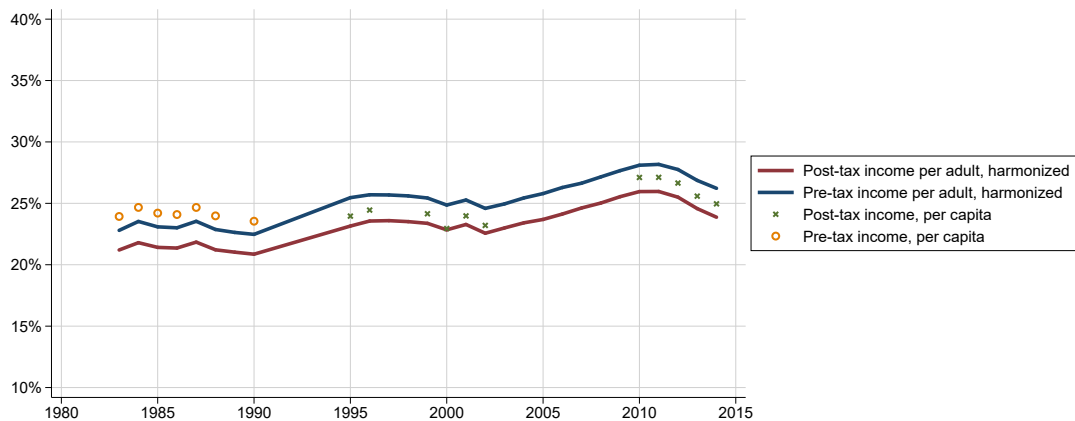## D.24   Malta

Table D.29: Malta: sources available by year

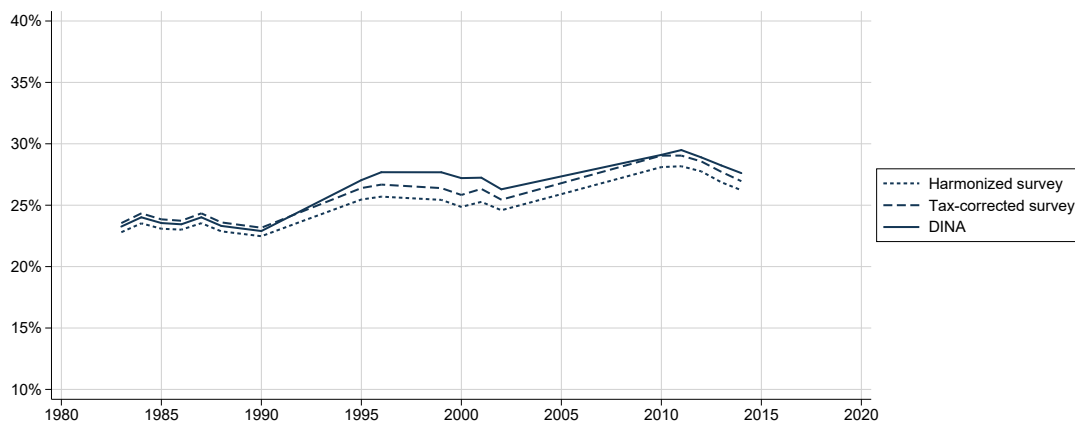| Year	Survey (tabulated)	Survey (microdata)	Tax data	Undistributed profits	Imputed rents
1980					
1981					
1982					
1983					
1984					
1985					
1986					
1987					
1988					
1989					
1990					
1991					
1992					
1993					
1994					
1995					
1996					
1997					
1998					
1999					
2000					x
2001					x
2002					x
2003					x
2004					x
2005					x
2006					x
2007		x			x
2008		x			x
2009		x			x
2010		x			x
2011		x			x
2012		x			x
2013		x			x
2014		x			x
2015		x			x
2016		x			x
2017					x

Source: authors' computations.

Appendix

Figure D.51: Malta: from tabulated surveys to distributional national accounts

(a) Top 10% income share: tabulated vs. harmonized surveys

(b) Top 10% pre-tax income share: harmonized surveys vs. DINA

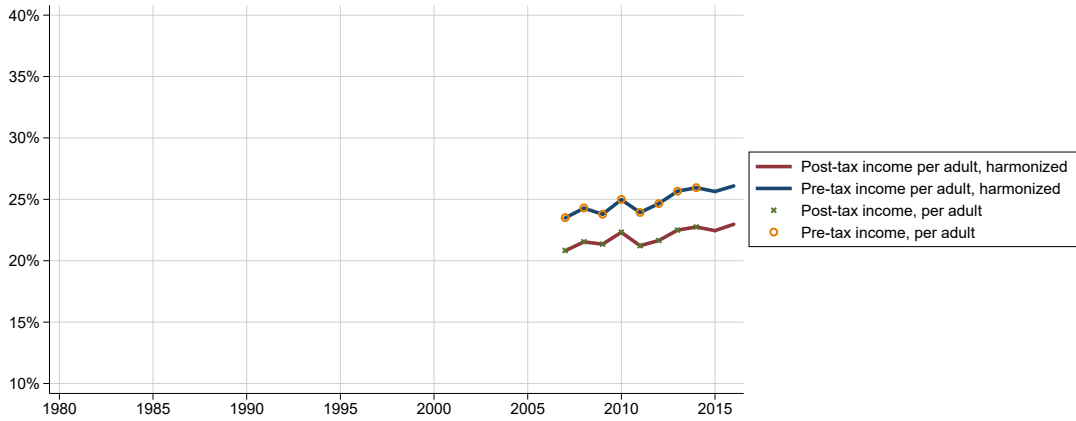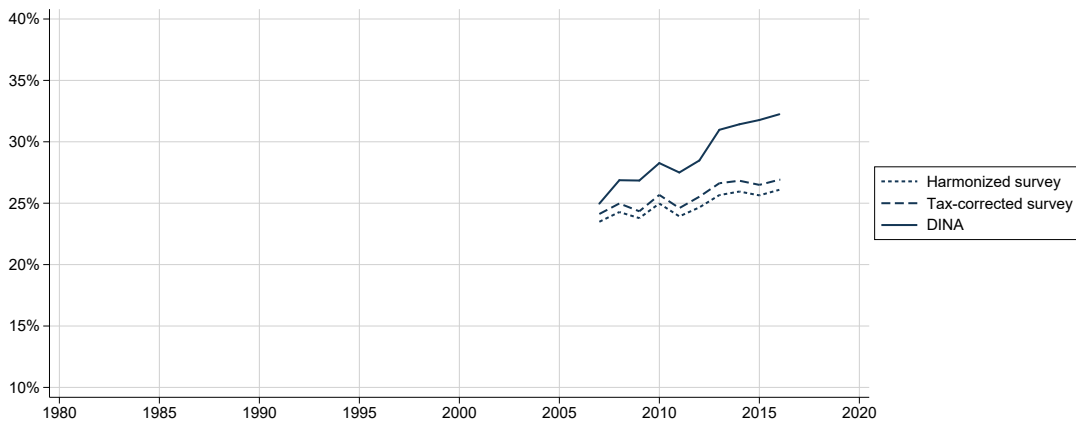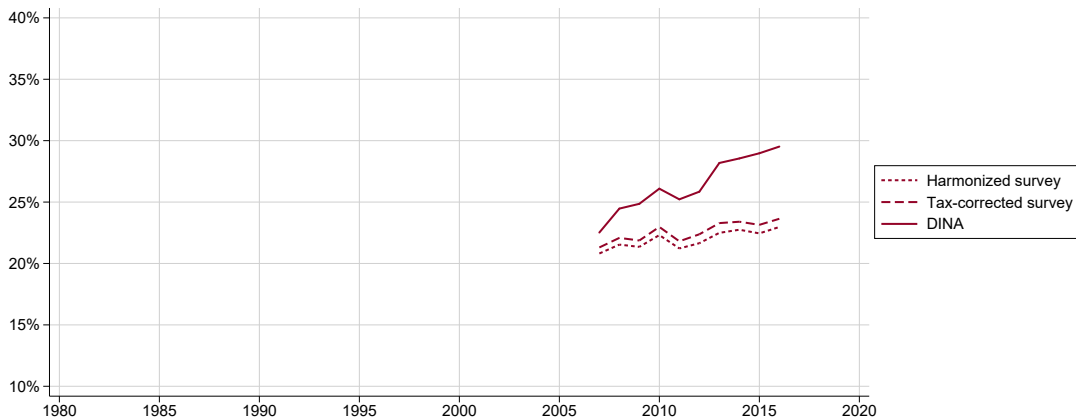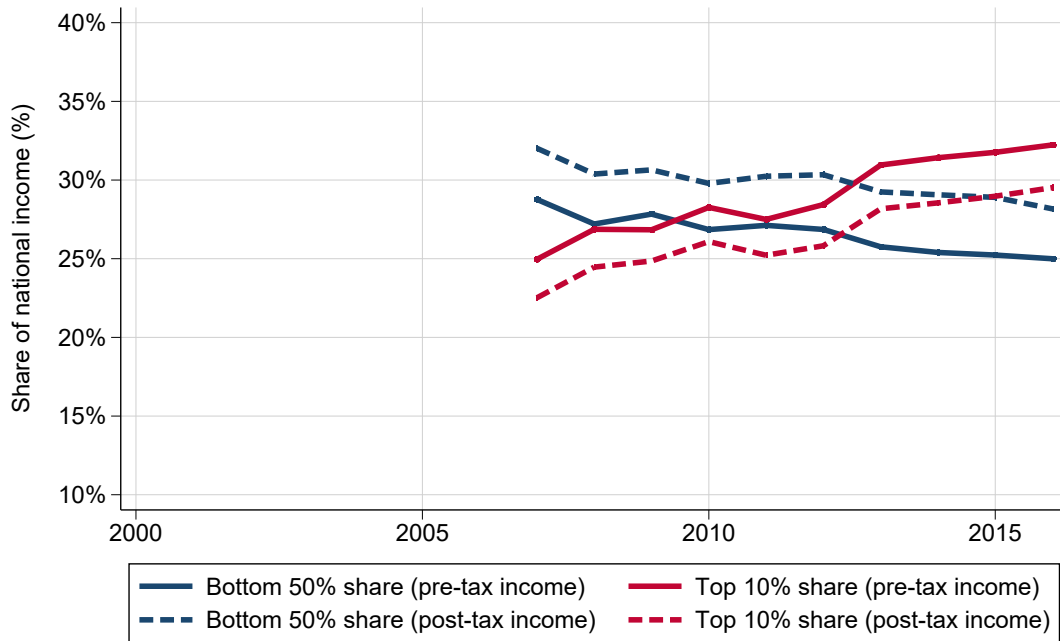(c) Top 10% post-tax income share: harmonized surveys vs. DINA

Figure D.52: Malta: main results

(a) Bottom 50% vs. Top 10% income shares

(b) Growth incidence curve
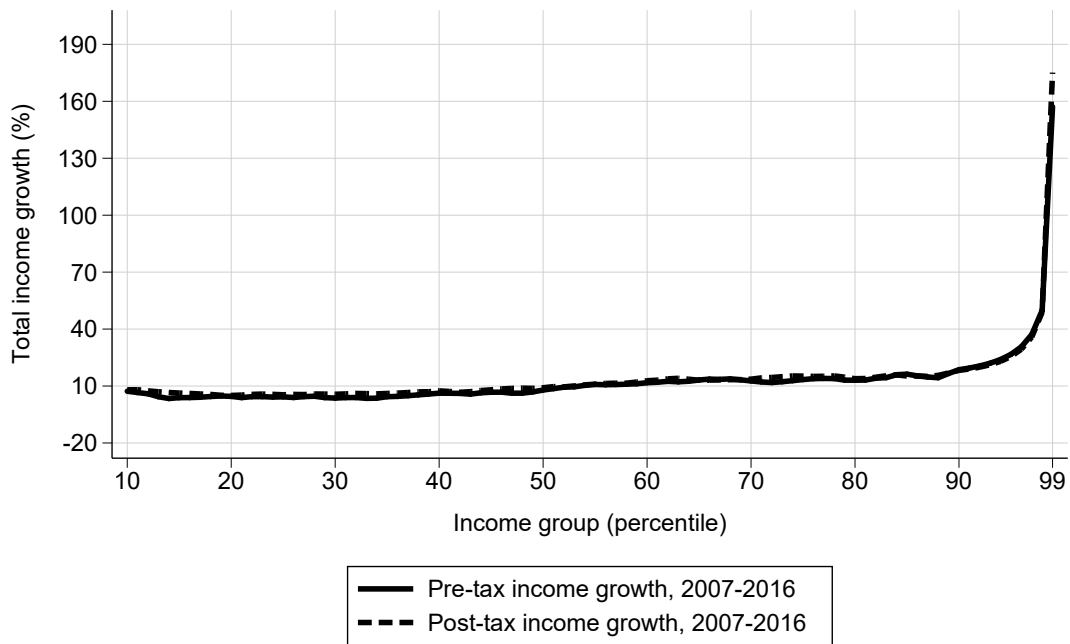
D.25 Moldova

Table D.30: Moldova: sources available by year

Year	Survey (tabulated)	Survey (microdata)	Tax data	Undistributed profits	Imputed rents
1980					
1981					
1982					
1983					
1984					
1985					
1986					
1987					
1988					
1989					
1990					
1991					
1992					
1993	x				
1994					
1995					
1996					
1997	x				
1998	x				
1999	x				
2000	x				
2001	x				
2002	x				
2003	x				
2004	x				
2005	x				
2006	x				
2007	x				
2008	x				
2009	x				
2010	x				
2011	x				
2012	x				
2013	x				
2014	x				
2015	x				
2016					
2017					

Source: authors' computations.

Figure D.53: Moldova: from tabulated surveys to distributional national accounts

(a) Top 10% income share: tabulated vs. harmonized surveys

(b) Top 10% pre-tax income share: harmonized surveys vs. DINA

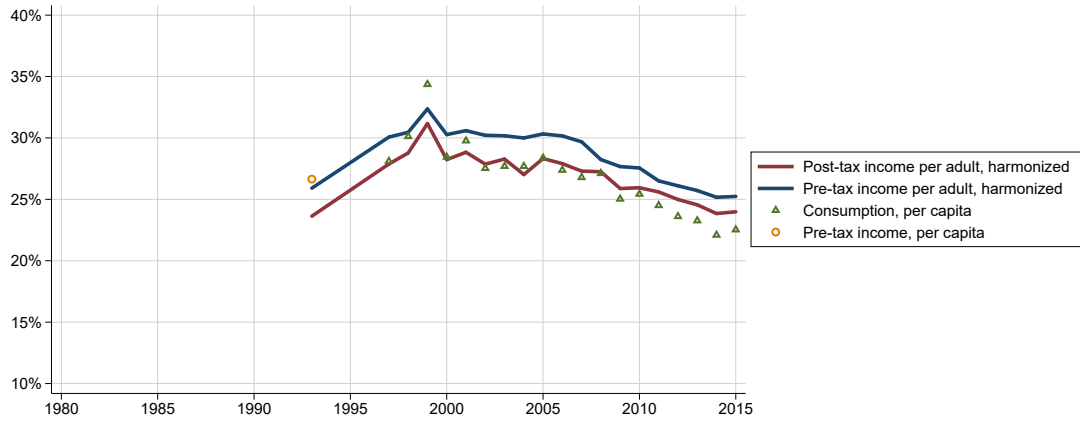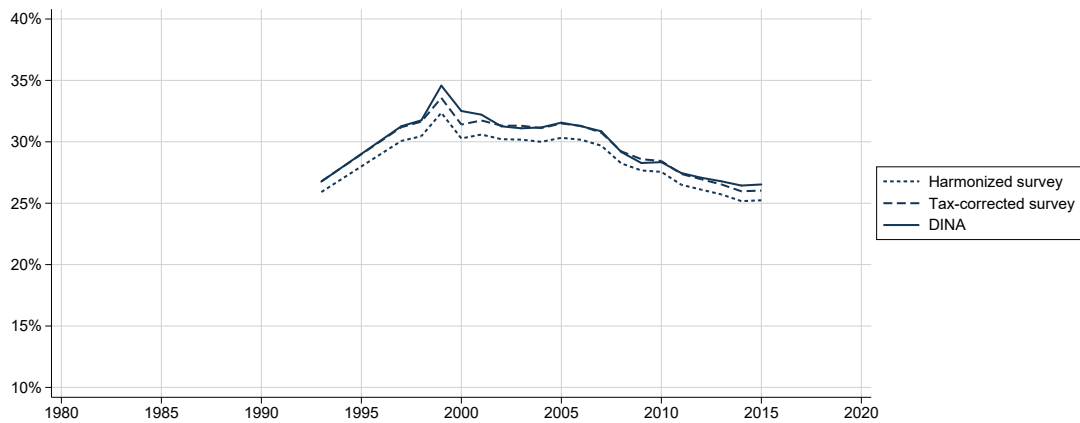(c) Top 10% post-tax income share: harmonized surveys vs. DINA
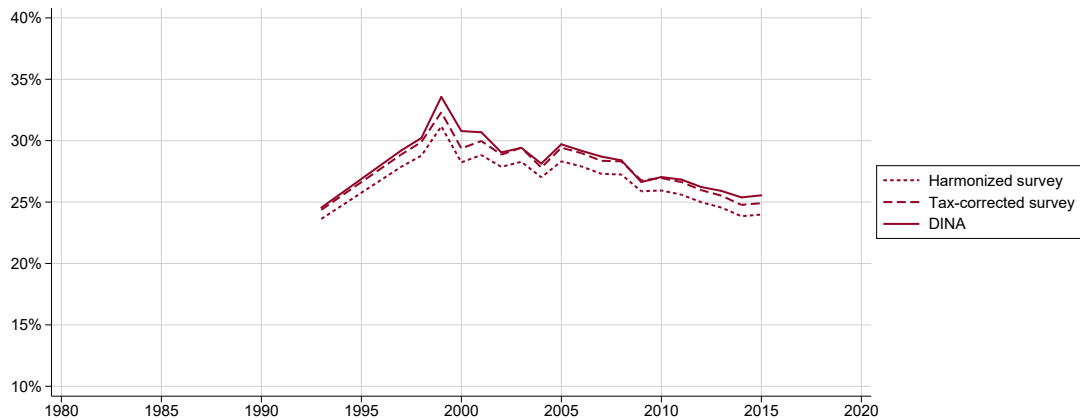
Figure D.54: Moldova: main results

(a) Bottom 50% vs. Top 10% income shares
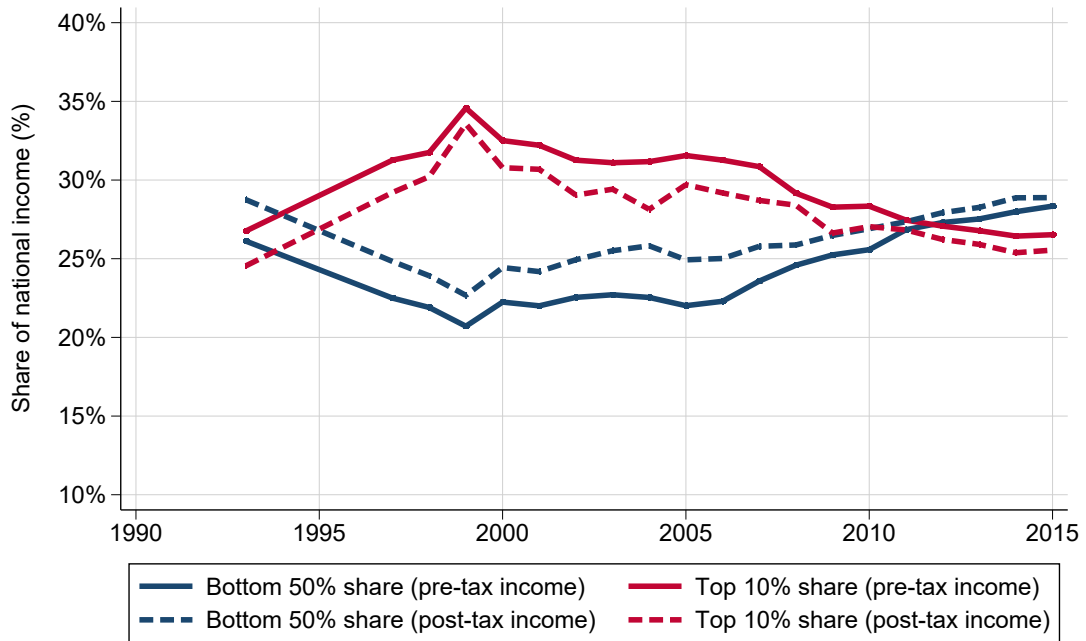
(b) Growth incidence curve
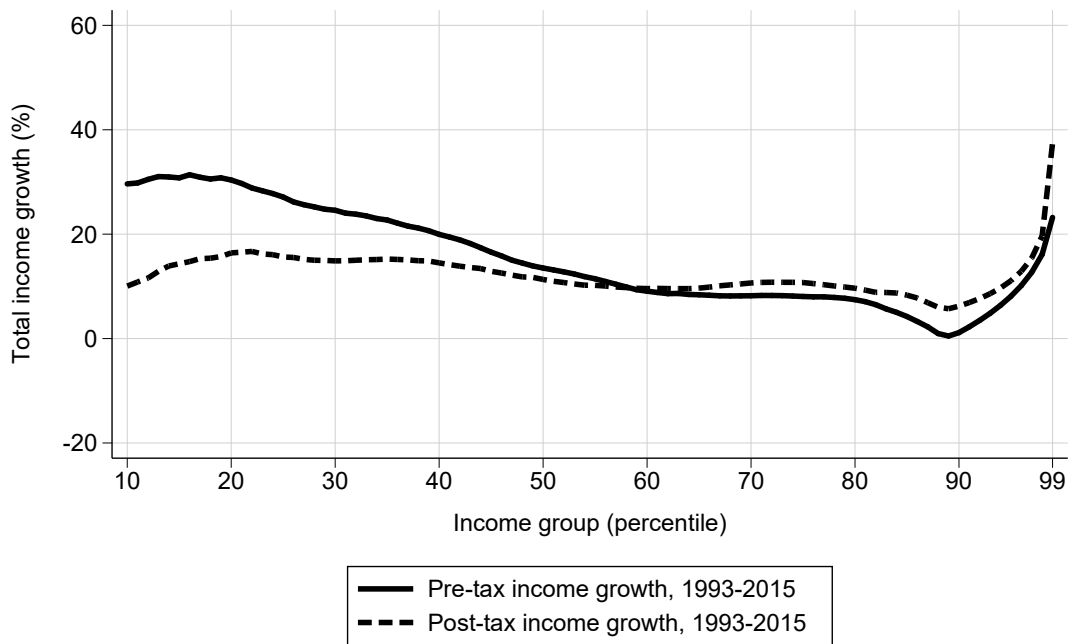
D.26 Montenegro

Table D.31: Montenegro: sources available by year

Year	Survey (tabulated)	Survey (microdata)	Tax data	Undistributed profits	Imputed rents
1980					
1981					
1982					
1983	x				
1984	x				
1985	x				
1986	x				
1987	x				
1988	x				
1989					
1990	x				
1991					
1992					
1993					
1994					
1995					
1996					
1997					
1998					
1999					
2000					
2001					
2002					
2003					
2004					
2005	x				
2006	x				
2007	x				
2008	x				
2009	x				
2010	x				
2011	x				
2012	x				
2013	x				
2014	x				
2015					
2016					
2017					

Source: authors' computations.

Figure D.55: Montenegro: from tabulated surveys to distributional national accounts

(a) Top 10% income share: tabulated vs. harmonized surveys

(b) Top 10% pre-tax income share: harmonized surveys vs. DINA

(c) Top 10% post-tax income share: harmonized surveys vs. DINA

Figure D.56: Montenegro: main results

(a) Bottom 50% vs. Top 10% income shares

(b) Growth incidence curve

D.27   Netherlands
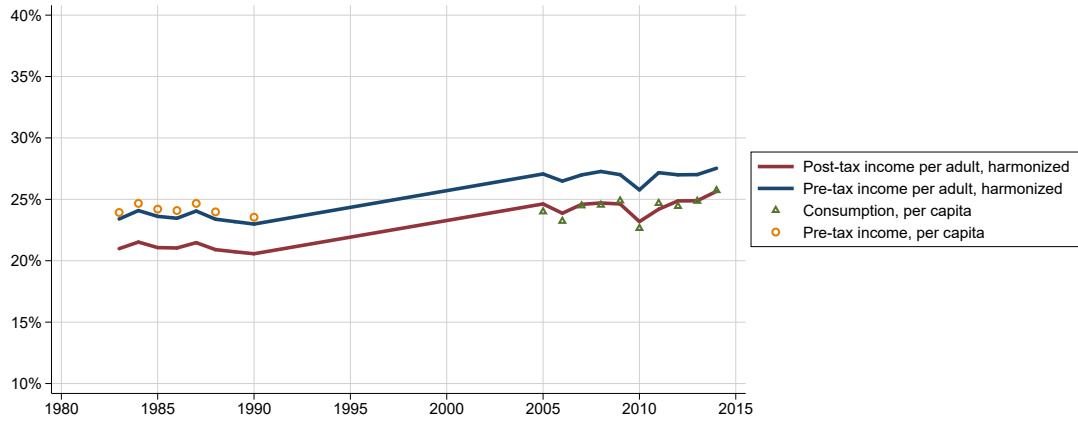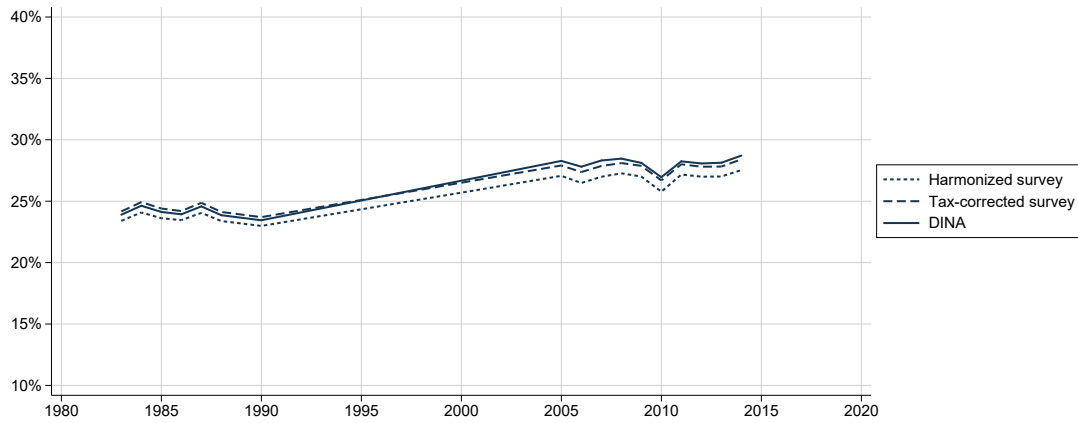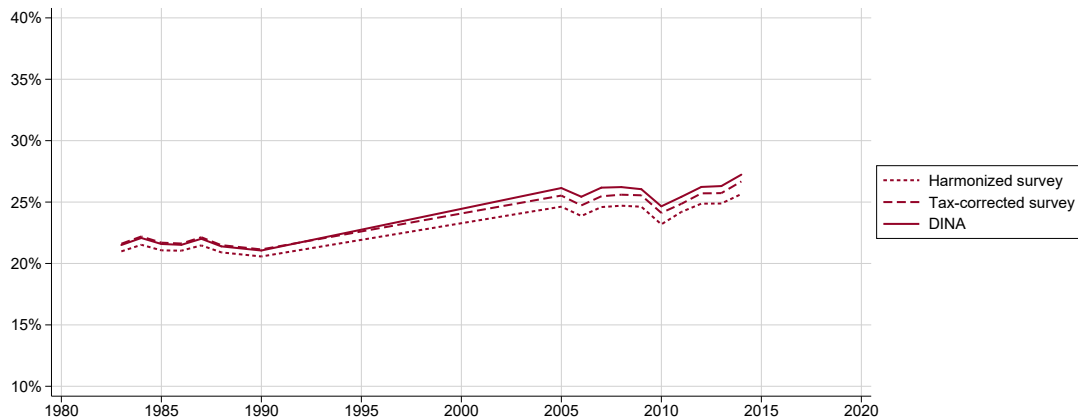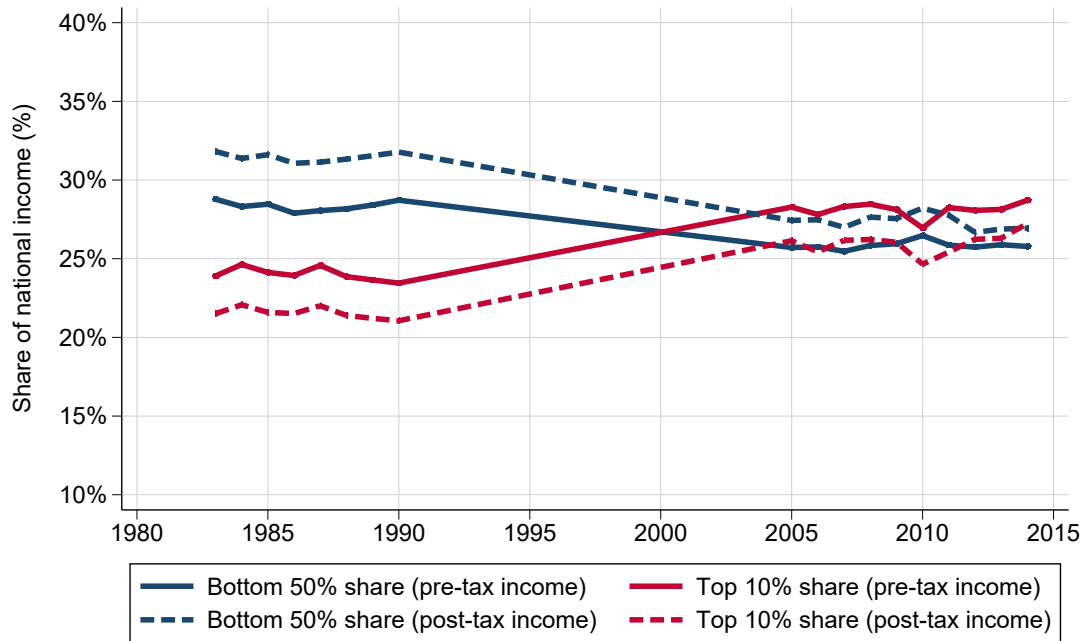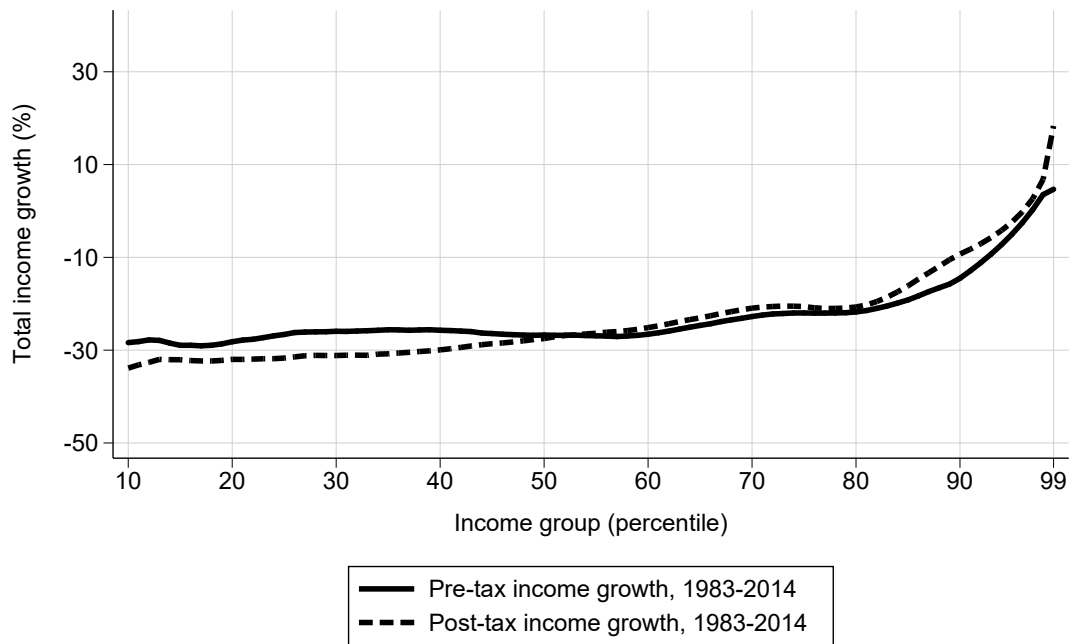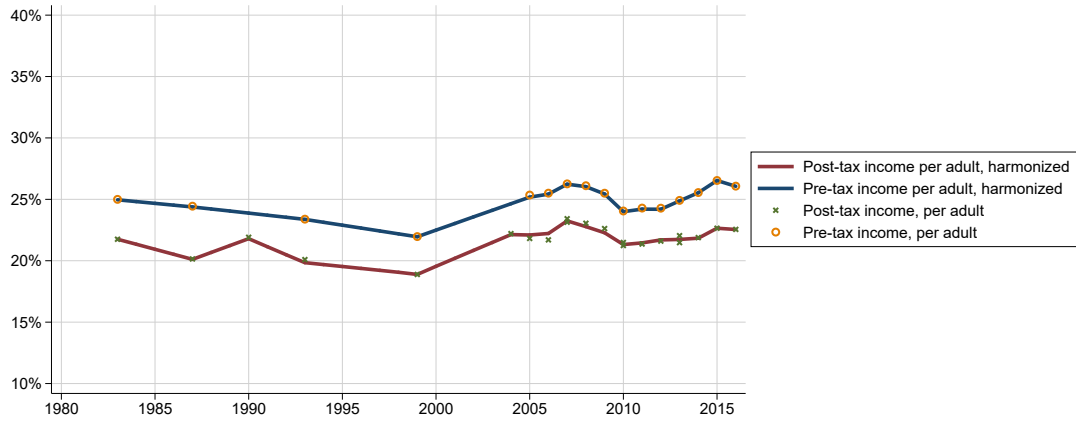
Table D.32: Netherlands: sources available by year

Year	Survey (tabulated)	Survey (microdata)	Tax data	Undistributed profits	Imputed rents
1980					
1981			x		
1982					
1983		x			
1984					
1985			x		
1986					
1987		x			
1988					
1989			x		
1990		x	x	x	
1991			x	x	
1992			x	x	
1993		x	x	x	
1994			x	x	
1995			x	x	
1996			x	x	
1997			x	x	
1998			x	x	
1999		x	x	x	
2000			x	x	
2001			x	x	
2002			x	x	
2003			x	x	
2004		x	x	x	
2005		x	x	x	
2006		x	x	x	
2007		x	x	x	
2008		x	x	x	
2009		x	x	x	
2010		x	x	x	
2011		x	x	x	
2012		x	x	x	
2013		x		x	
2014		x		x	
2015		x		x	
2016		x		x	
2017				x	

Source: authors' computations.
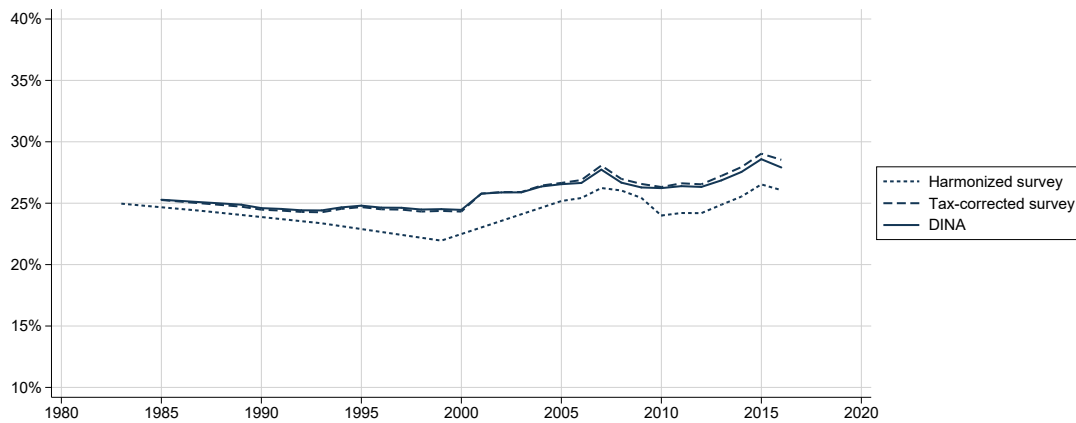
Figure D.57: Netherlands: from tabulated surveys to distributional national accounts

(a) Top 10% income share: tabulated vs. harmonized surveys

(b) Top 10% pre-tax income share: harmonized surveys vs. DINA

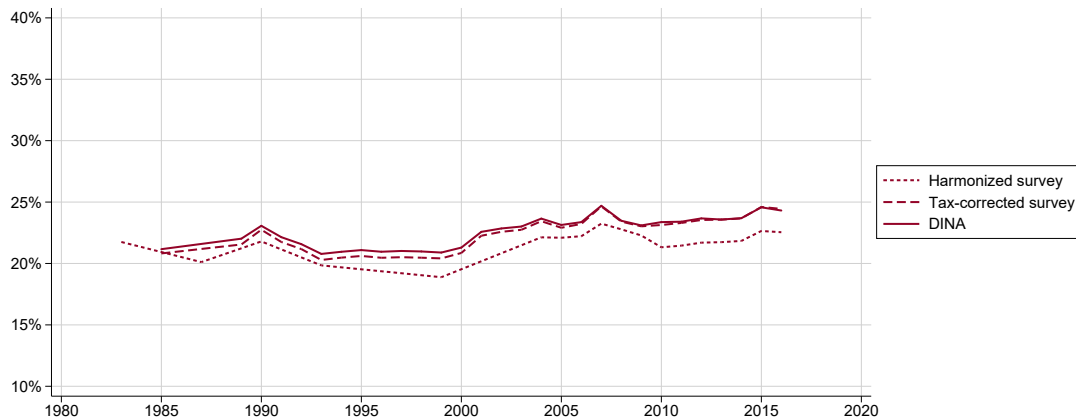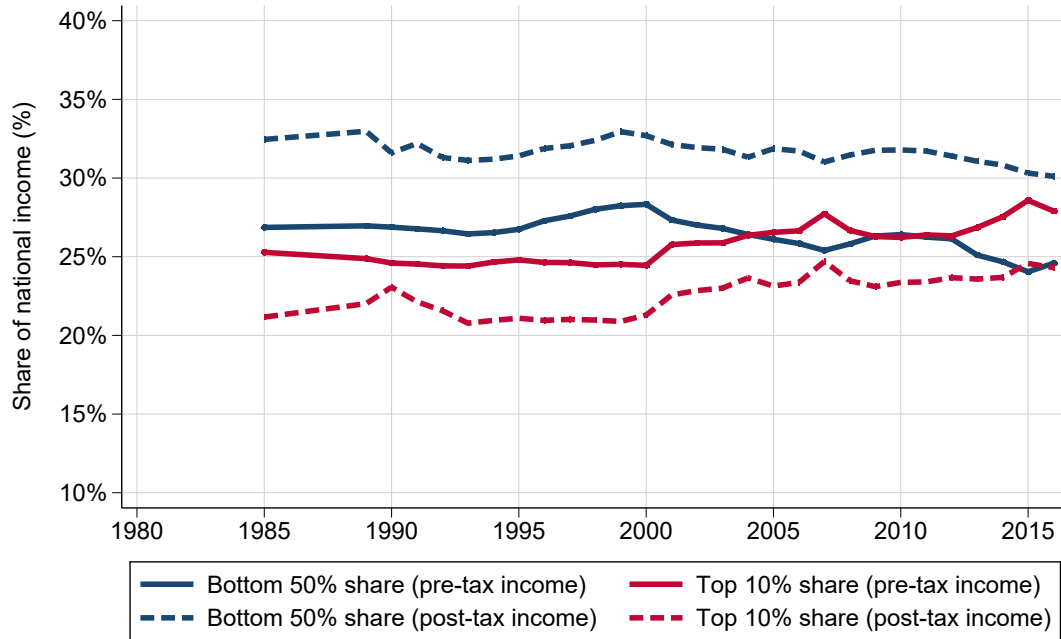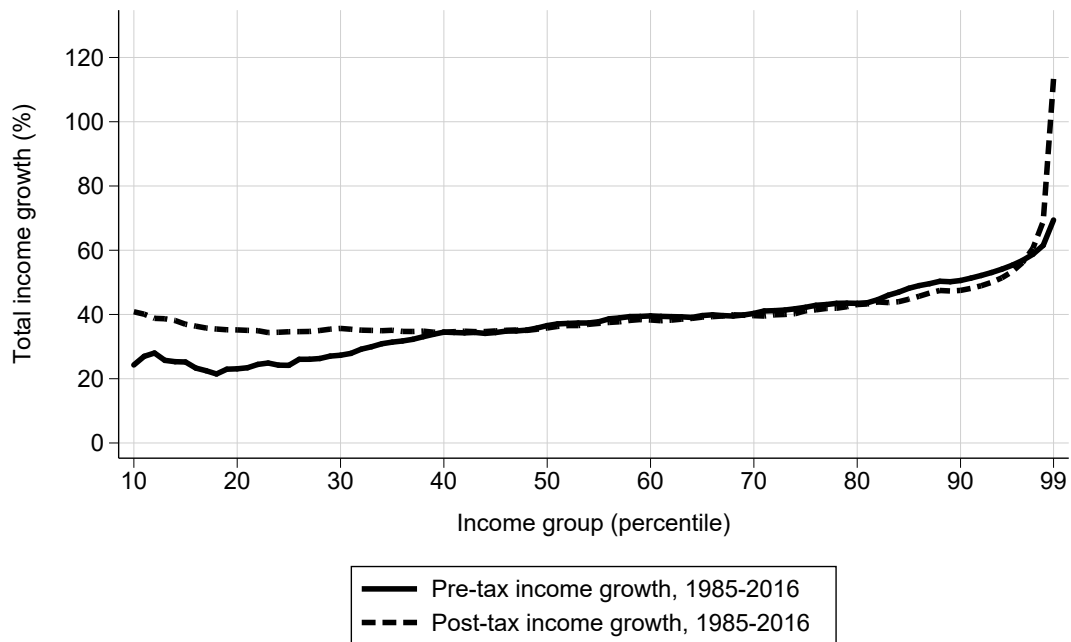(c) Top 10% post-tax income share: harmonized surveys vs. DINA

Figure D.58: Netherlands: main results

(a) Bottom 50% vs. Top 10% income shares

(b) Growth incidence curve

D.28   Norway

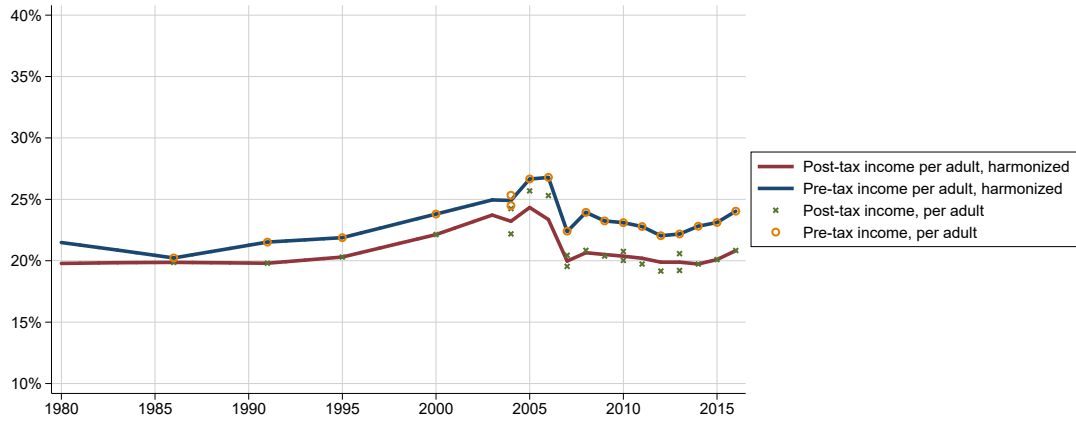Table D.33: Norway: sources available by year

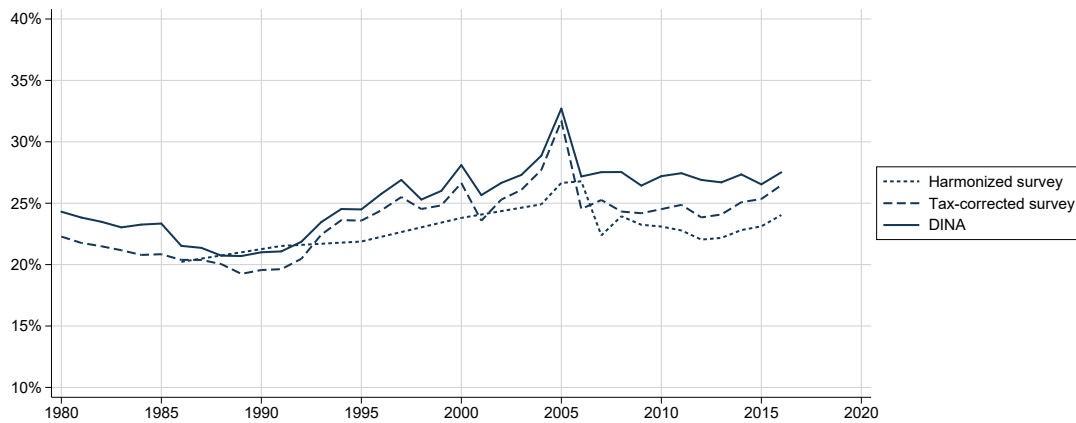| Year	Survey (tabulated)	Survey (microdata)	Tax data	Undistributed profits	Imputed rents
1980			x		x
1981			x		x
1982			x		x
1983			x		x
1984			x		x
1985			x		x
1986		x	x		x
1987			x		x
1988			x		x
1989			x		x
1990			x		x
1991		x	x		x
1992			x		x
1993			x		x
1994			x		x
1995		x	x	x	x
1996			x	x	x
1997			x	x	x
1998			x	x	x
1999			x	x	x
2000		x	x	x	x
2001			x	x	x
2002			x	x	x
2003			x	x	x
2004		x	x	x	x
2005		x	x	x	x
2006		x	x	x	x
2007		x	x	x	x
2008		x	x	x	x
2009		x	x	x	x
2010		x	x	x	x
2011		x	x	x	x
2012		x		x	x
2013		x		x	x
2014		x		x	x
2015		x		x	x
2016		x		x	x
2017				x	x

Source: authors' computations.

Figure D.59: Norway: from tabulated surveys to distributional national accounts

(a) Top 10% income share: tabulated vs. harmonized surveys

(b) Top 10% pre-tax income share: harmonized surveys vs. DINA

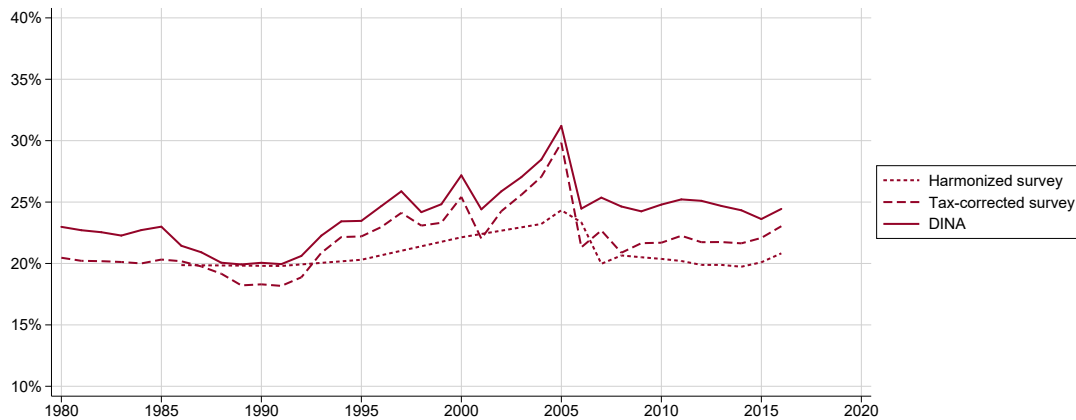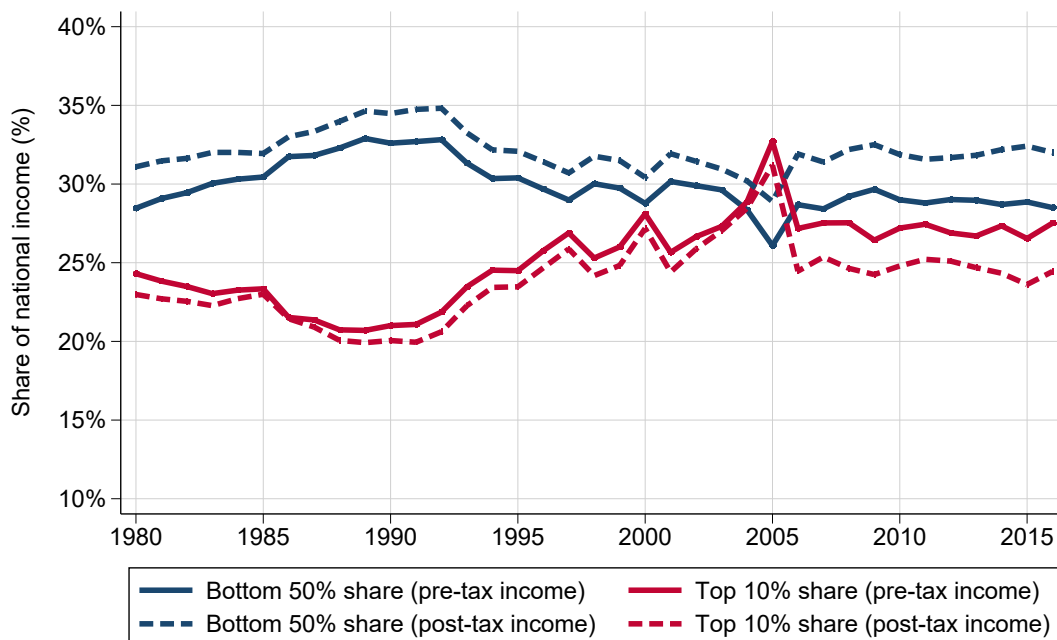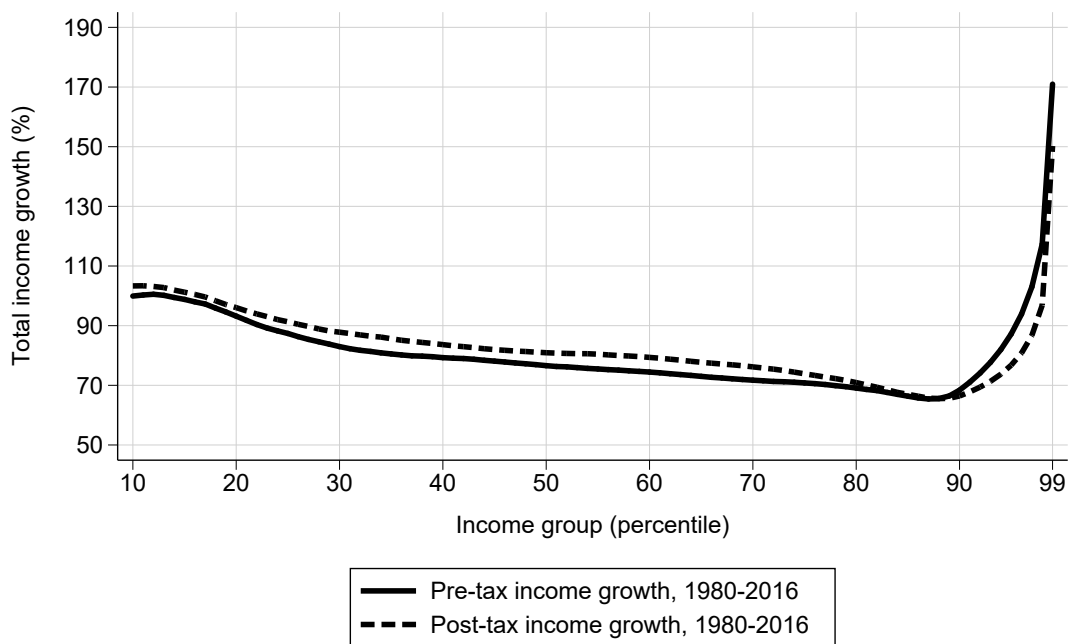(c) Top 10% post-tax income share: harmonized surveys vs. DINA

Figure D.60: Norway: main results

(a) Bottom 50% vs. Top 10% income shares

(b) Growth incidence curve

D.29 Poland

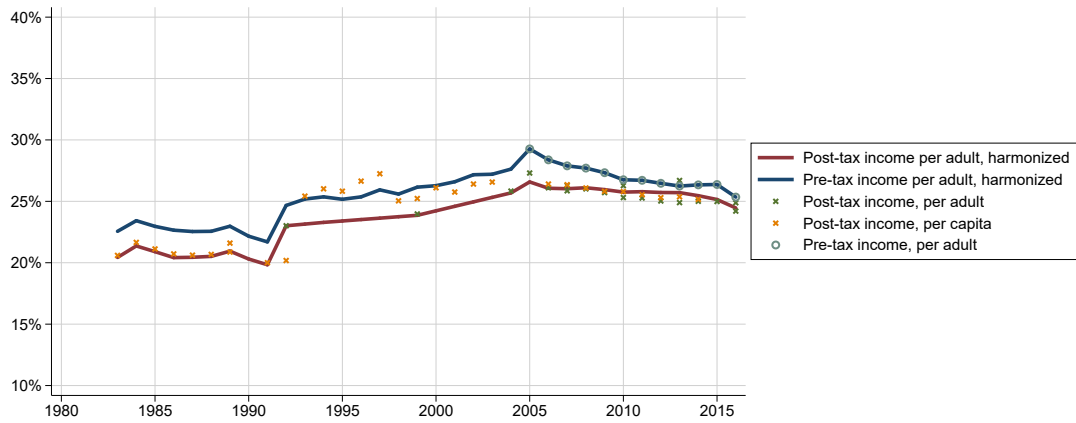Table D.34: Poland: sources available by year

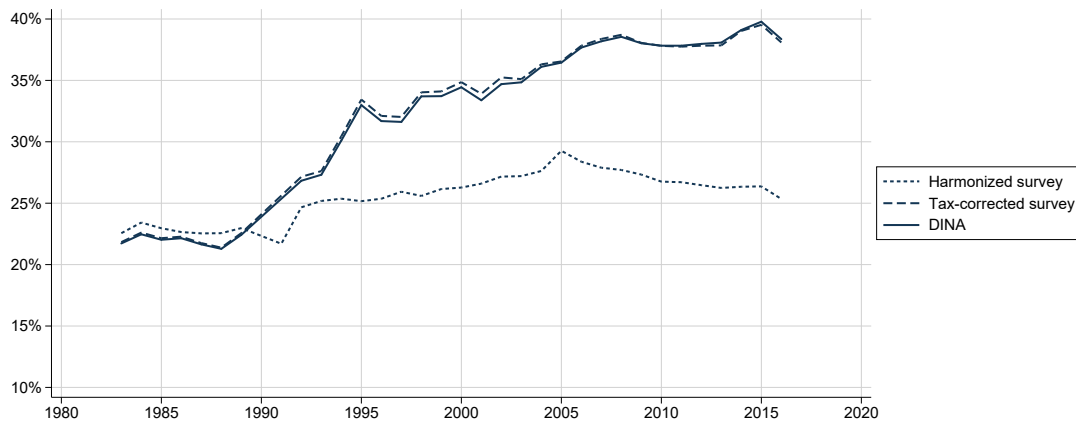| Year	Survey (tabulated)	Survey (microdata)	Tax data	Undistributed profits	Imputed rents
1980					
1981					
1982					
1983	x		x		
1984	x		x		
1985	x		x		
1986	x		x		
1987	x		x		
1988	x		x		
1989	x		x		
1990					
1991	x				
1992		x	x		
1993	x		x		
1994	x		x		
1995	x		x	x	x
1996	x		x	x	x
1997	x		x	x	x
1998	x		x	x	x
1999		x	x	x	x
2000	x		x	x	x
2001	x		x	x	x
2002	x		x	x	x
2003	x		x	x	x
2004		x	x	x	x
2005		x	x	x	x
2006		x	x	x	x
2007		x	x	x	x
2008		x	x	x	x
2009		x	x	x	x
2010		x	x	x	x
2011		x	x	x	x
2012		x	x	x	x
2013		x	x	x	x
2014		x	x	x	x
2015		x	x	x	x
2016		x		x	x
2017					

Source: authors' computations.

Figure D.61: Poland: from tabulated surveys to distributional national accounts

(a) Top 10% income share: tabulated vs. harmonized surveys

(b) Top 10% pre-tax income share: harmonized surveys vs. DINA

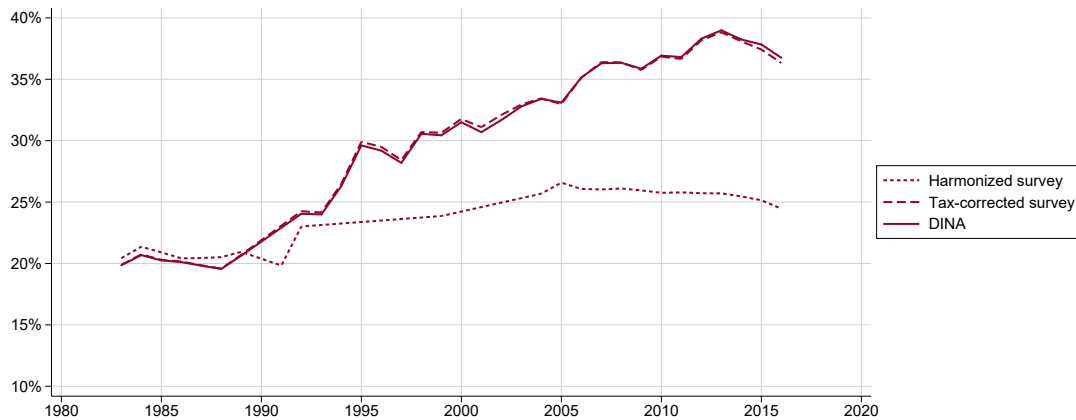(c) Top 10% post-tax income share: harmonized surveys vs. DINA

Figure D.62: Poland: main results

(a) Bottom 50% vs. Top 10% income shares
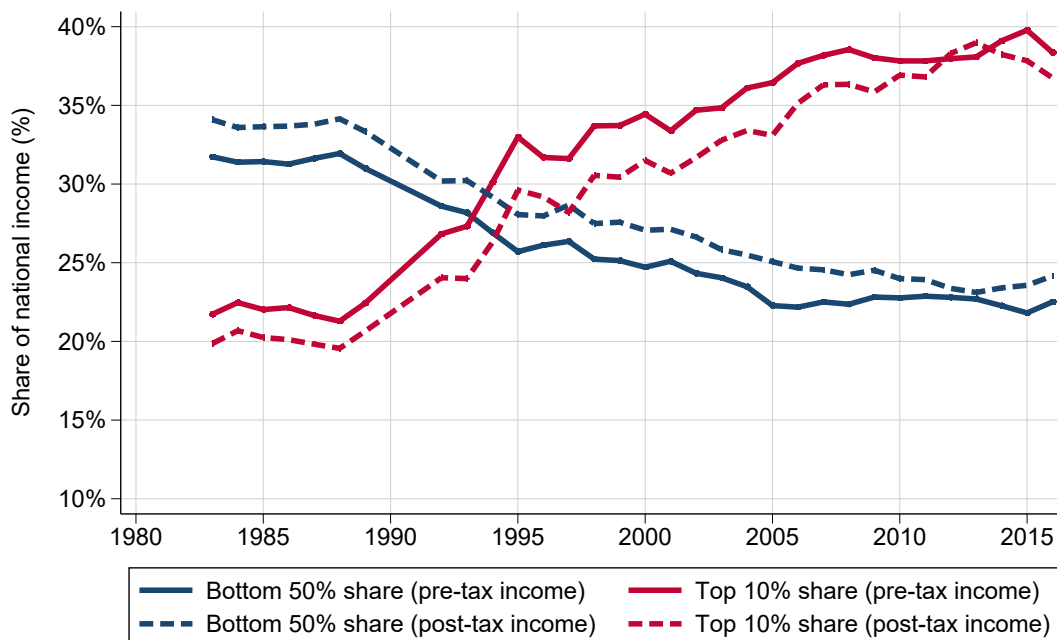
(b) Growth incidence curve
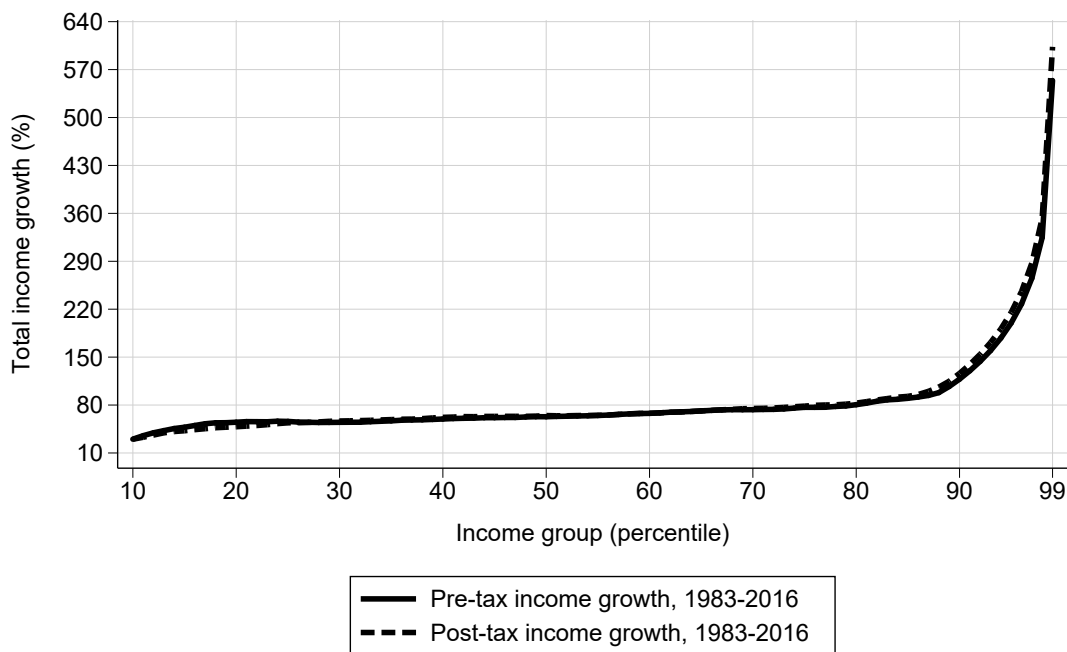
D.30   Portugal

Table D.35: Portugal: sources available by year

Year	Survey (tabulated)	Survey (microdata)	Tax data	Undistributed profits	Imputed rents
1980	x		x		
1981			x		
1982			x		
1983					
1984					
1985					
1986					
1987					
1988					
1989			x		
1990	x		x		
1991			x		
1992			x		
1993			x		
1994		x	x		
1995		x	x	x	x
1996		x	x	x	x
1997		x	x	x	x
1998		x	x	x	x
1999		x	x	x	x
2000		x	x	x	x
2001		x	x	x	x
2002			x	x	x
2003			x	x	x
2004		x	x	x	x
2005		x	x	x	x
2006		x		x	x
2007		x		x	x
2008		x		x	x
2009		x		x	x
2010		x		x	x
2011		x		x	x
2012		x		x	x
2013		x		x	x
2014		x		x	x
2015		x		x	x
2016		x		x	x
2017				x	x

Source: authors' computations.

Appendix

Figure D.63: Portugal: from tabulated surveys to distributional national accounts

(a) Top 10% income share: tabulated vs. harmonized surveys

(b) Top 10% pre-tax income share: harmonized surveys vs. DINA

(c) Top 10% post-tax income share: harmonized surveys vs. DINA
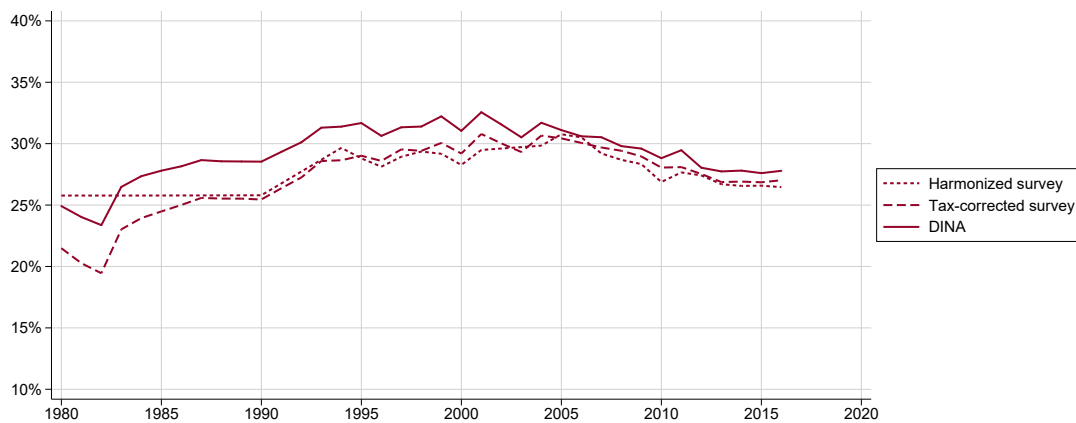
Figure D.64: Portugal: main results

(a) Bottom 50% vs. Top 10% income shares
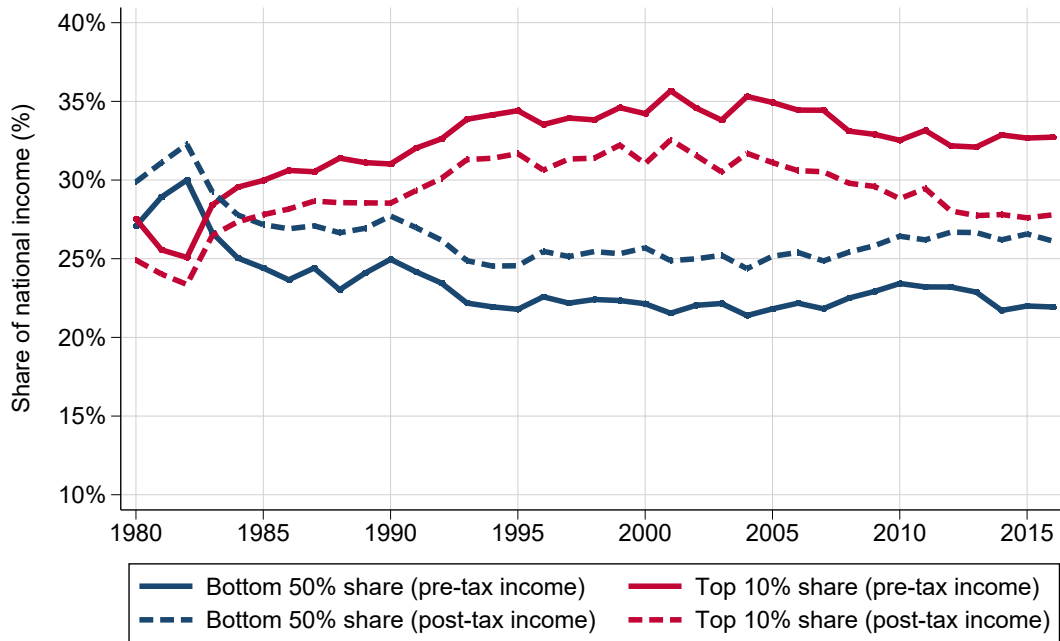
(b) Growth incidence curve
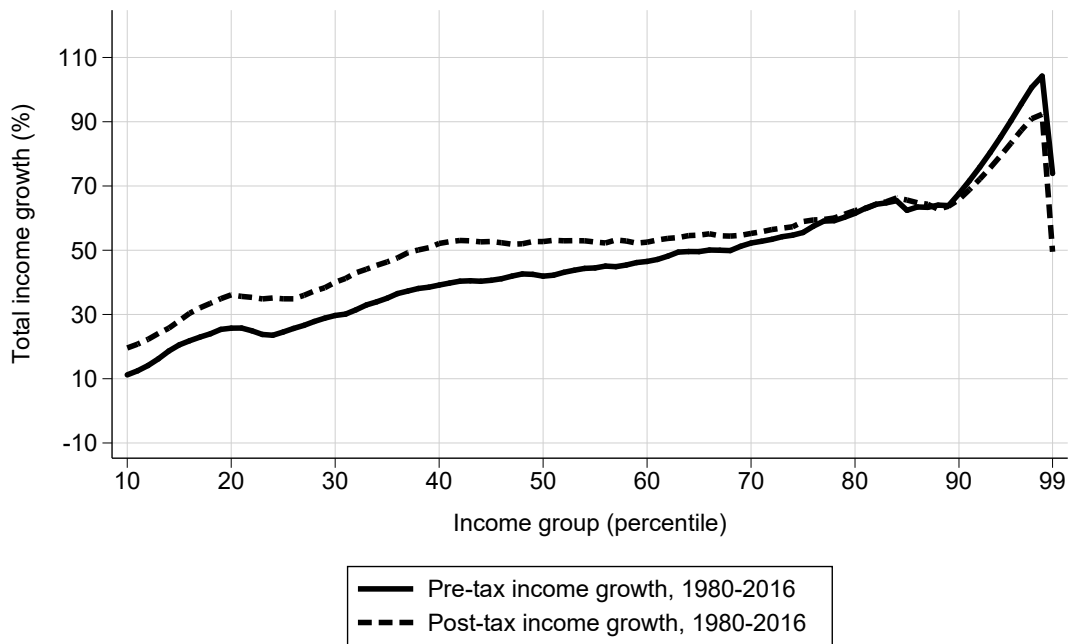
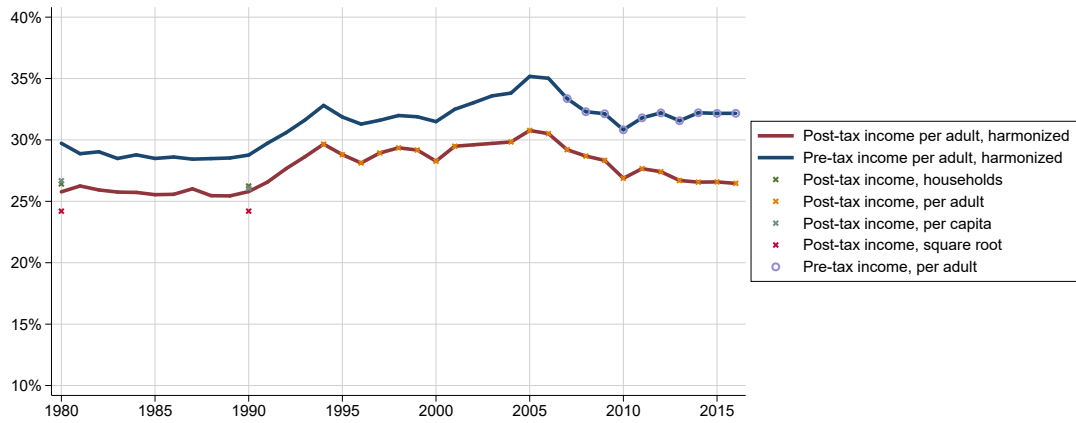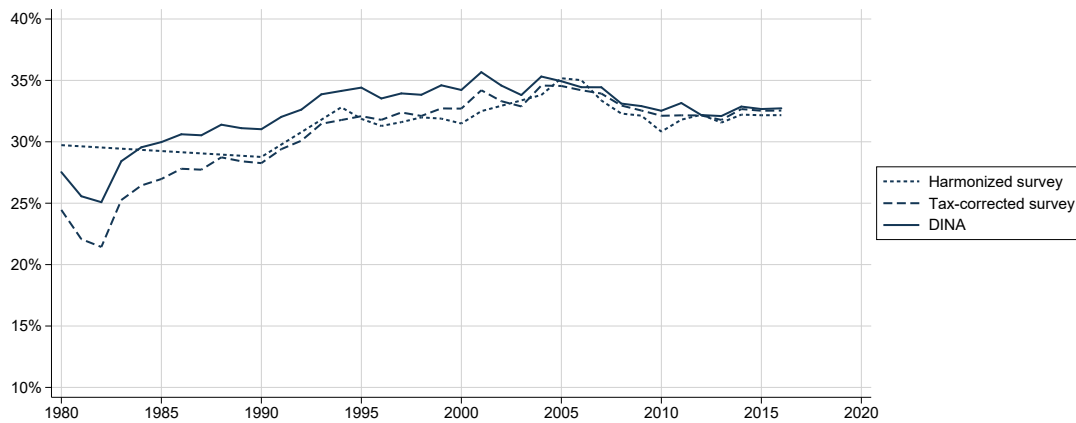## D.31   Romania

Table D.36: Romania: sources available by year

Year	Survey (tabulated)	Survey (microdata)	Tax data	Undistributed profits	Imputed rents
1980					
1981					
1982					
1983					
1984					
1985					
1986					
1987					
1988					
1989	x				
1990	x				
1991	x				
1992	x				
1993	x				
1994	x				
1995					
1996					
1997					
1998					
1999	x				
2000	x				
2001					
2002					
2003					
2004					x
2005					x
2006	x				x
2007		x			x
2008		x			x
2009		x			x
2010		x			x
2011		x			x
2012		x			x
2013		x			x
2014		x			
2015					
2016		x			
2017					

Source: authors' computations.

Figure D.65: Romania: from tabulated surveys to distributional national accounts

(a) Top 10% income share: tabulated vs. harmonized surveys

(b) Top 10% pre-tax income share: harmonized surveys vs. DINA

(c) Top 10% post-tax income share: harmonized surveys vs. DINA
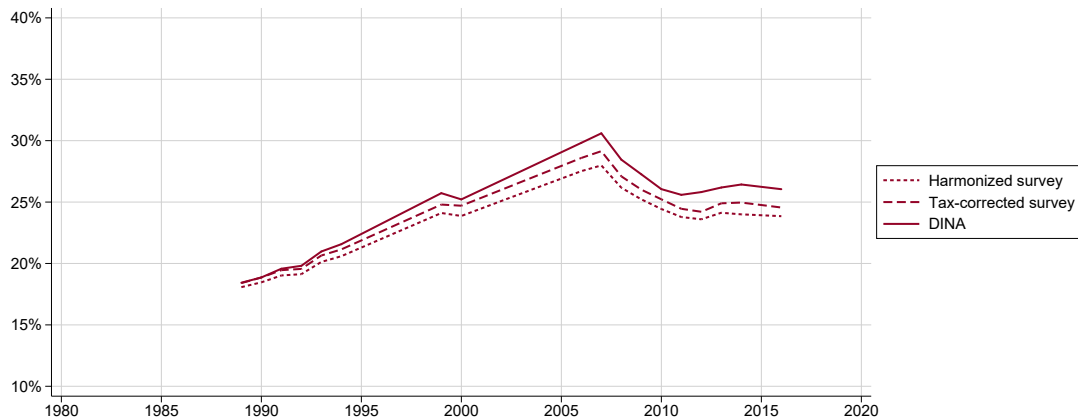
Figure D.66: Romania: main results

(a) Bottom 50% vs. Top 10% income shares
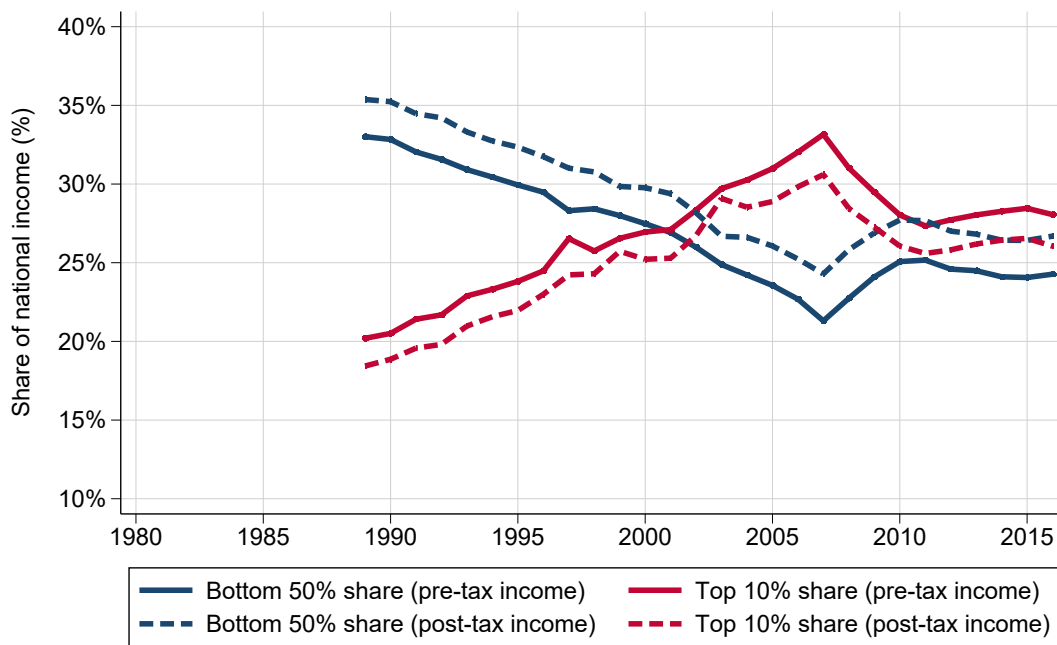
(b) Growth incidence curve
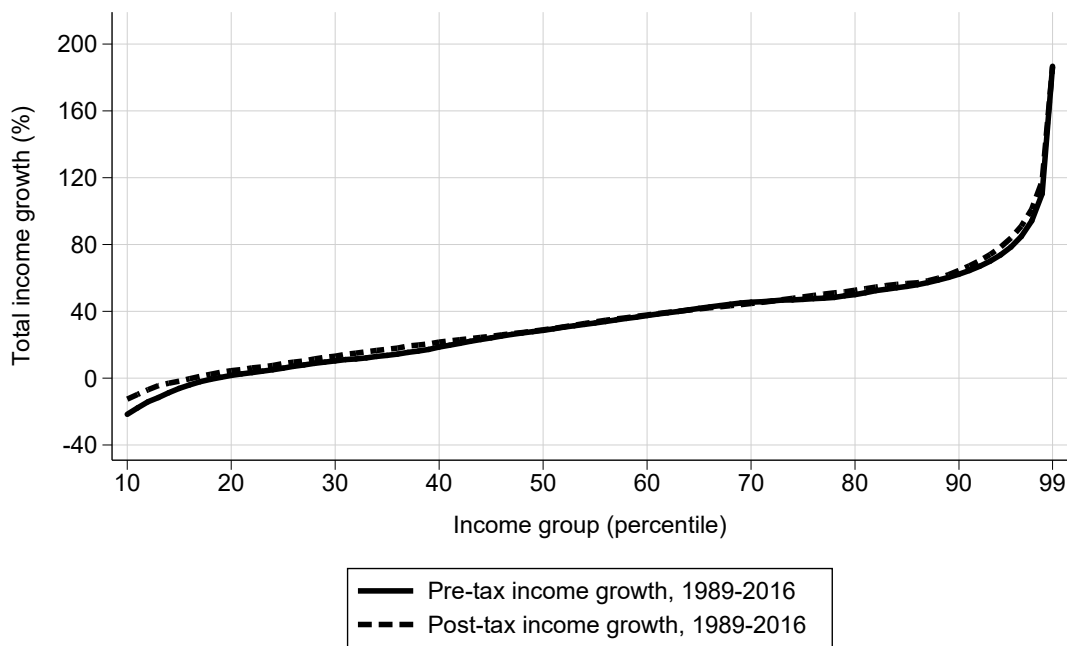
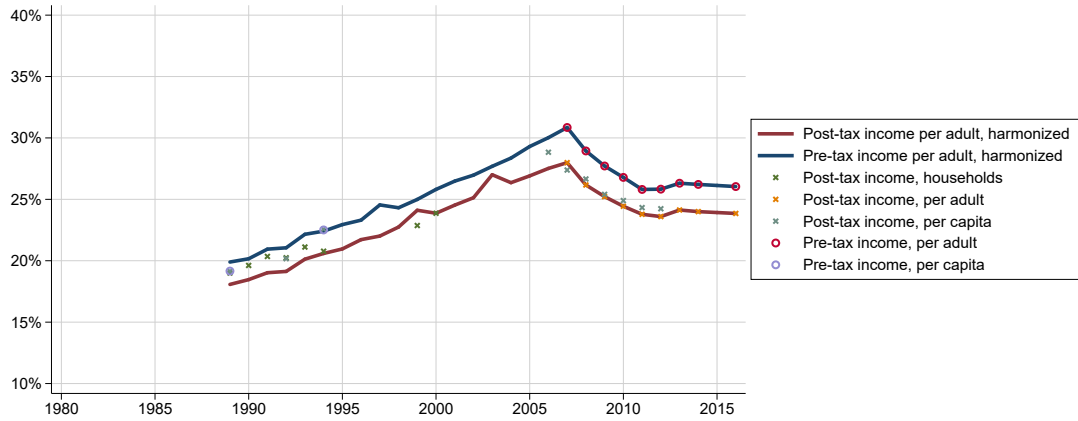## D.32   Serbia

Table D.37: Serbia: sources available by year

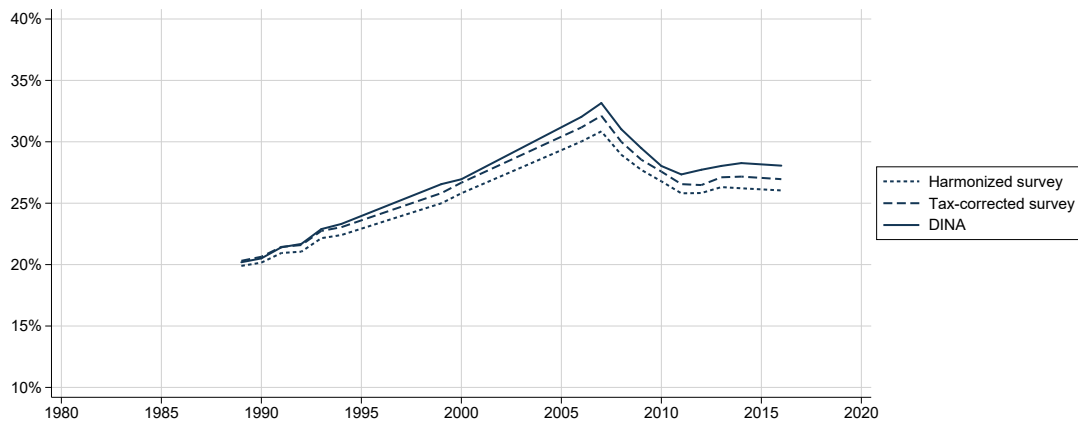| Year	Survey (tabulated)	Survey (microdata)	Tax data	Undistributed profits	Imputed rents
1980					
1981					
1982					
1983	x				
1984	x				
1985	x				
1986	x				
1987	x				
1988	x				
1989					
1990	x				
1991					
1992					
1993					
1994					
1995					
1996					
1997					x
1998					x
1999					x
2000					x
2001					x
2002					x
2003					x
2004					x
2005					x
2006		x			x
2007					x
2008					x
2009					x
2010		x			x
2011					x
2012					
2013		x			
2014		x			
2015		x			
2016		x			
2017					

Source: authors' computations.

Appendix

Figure D.67: Serbia: from tabulated surveys to distributional national accounts

(a) Top 10% income share: tabulated vs. harmonized surveys

(b) Top 10% pre-tax income share: harmonized surveys vs. DINA

(c) Top 10% post-tax income share: harmonized surveys vs. DINA

Figure D.68: Serbia: main results

(a) Bottom 50% vs. Top 10% income shares

(b) Growth incidence curve

D.33   Slovakia

Table D.38: Slovakia: sources available by year

Year	Survey (tabulated)	Survey (microdata)	Tax data	Undistributed profits	Imputed rents
1980	x				
1981					
1982					
1983					
1984					
1985	x				
1986					
1987					
1988	x				
1989					
1990					
1991					
1992		x			
1993	x				
1994					
1995				x	x
1996		x		x	x
1997	x			x	x
1998	x			x	x
1999	x			x	x
2000	x			x	x
2001	x			x	x
2002	x			x	x
2003	x			x	x
2004		x		x	x
2005				x	x
2006				x	x
2007		x		x	x
2008		x		x	x
2009		x		x	x
2010		x		x	x
2011		x		x	x
2012		x		x	x
2013		x		x	x
2014		x		x	x
2015		x		x	x
2016		x		x	x
2017				x	x

Source: authors' computations.

Appendix

Figure D.69: Slovakia: from tabulated surveys to distributional national accounts

(a) Top 10% income share: tabulated vs. harmonized surveys

(b) Top 10% pre-tax income share: harmonized surveys vs. DINA

(c) Top 10% post-tax income share: harmonized surveys vs. DINA
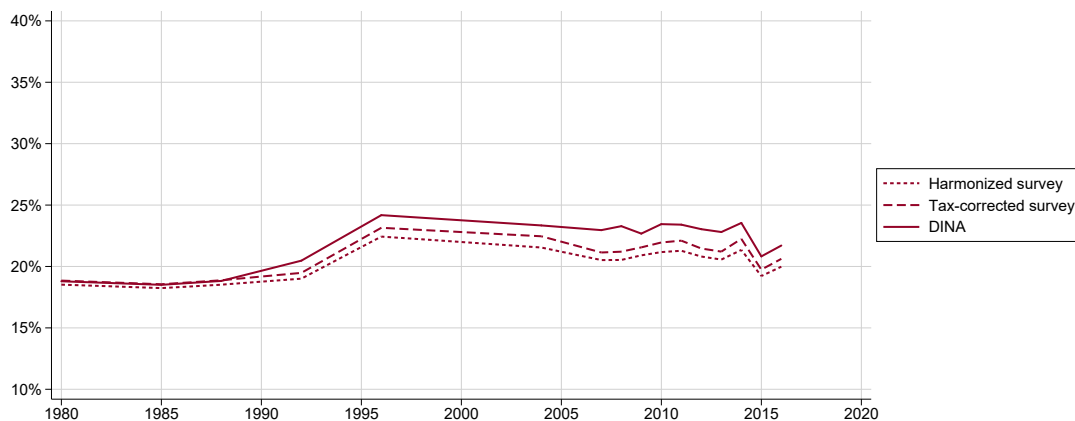
Figure D.70: Slovakia: main results

(a) Bottom 50% vs. Top 10% income shares
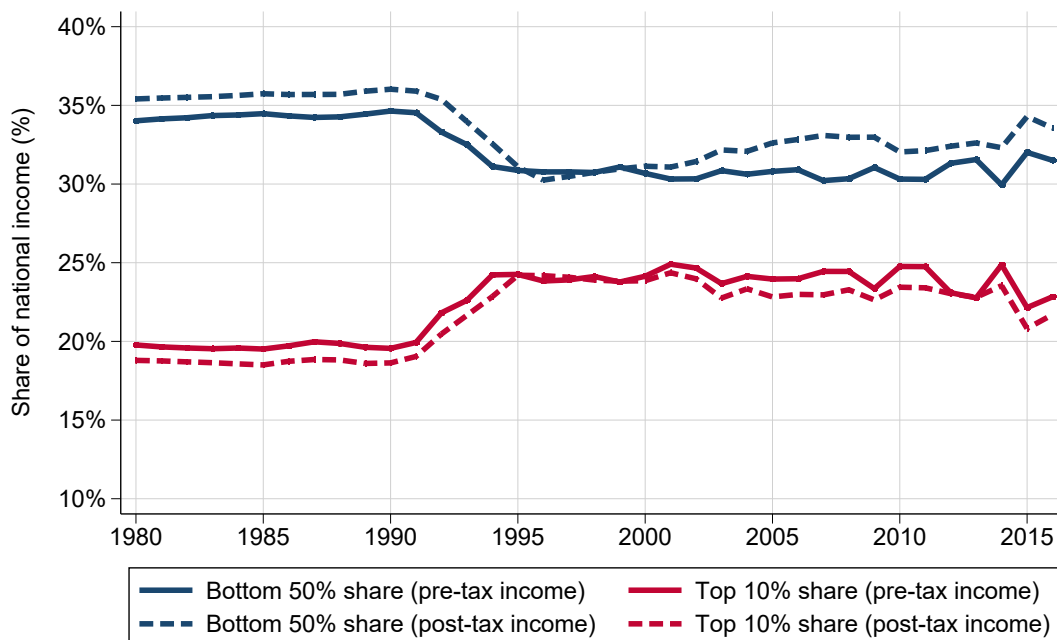
(b) Growth incidence curve
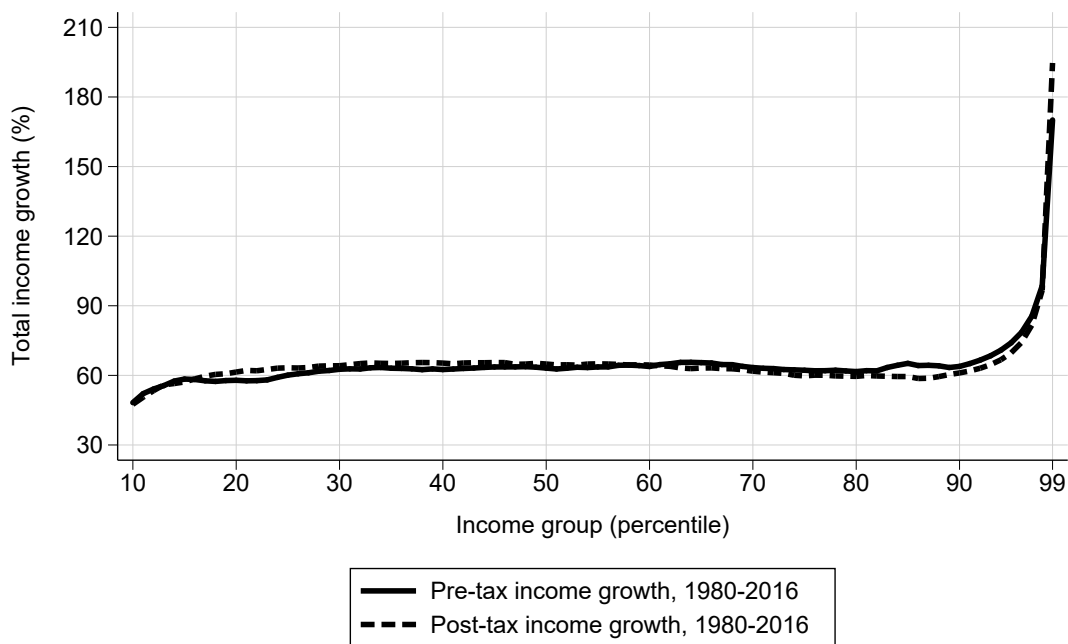
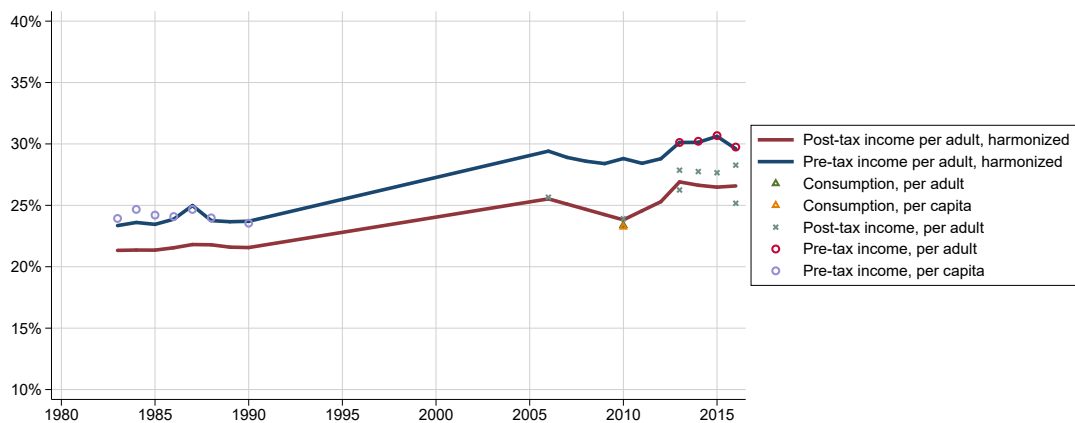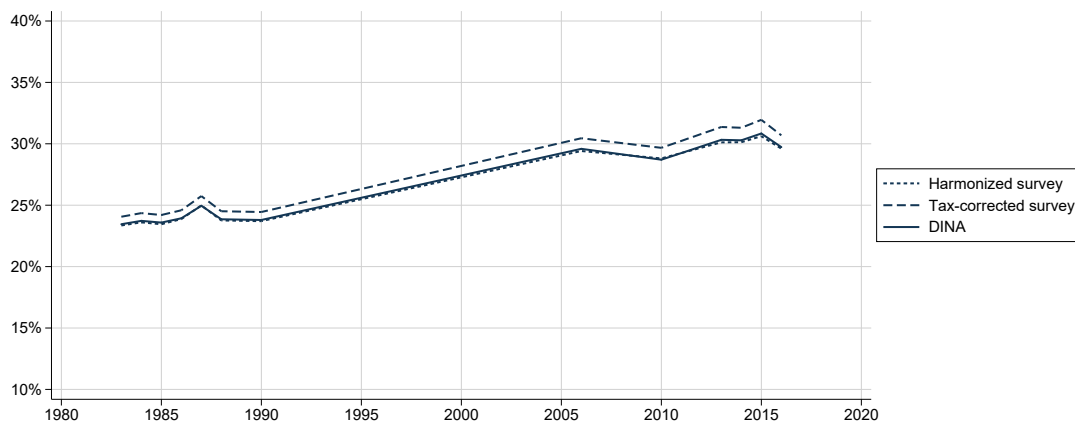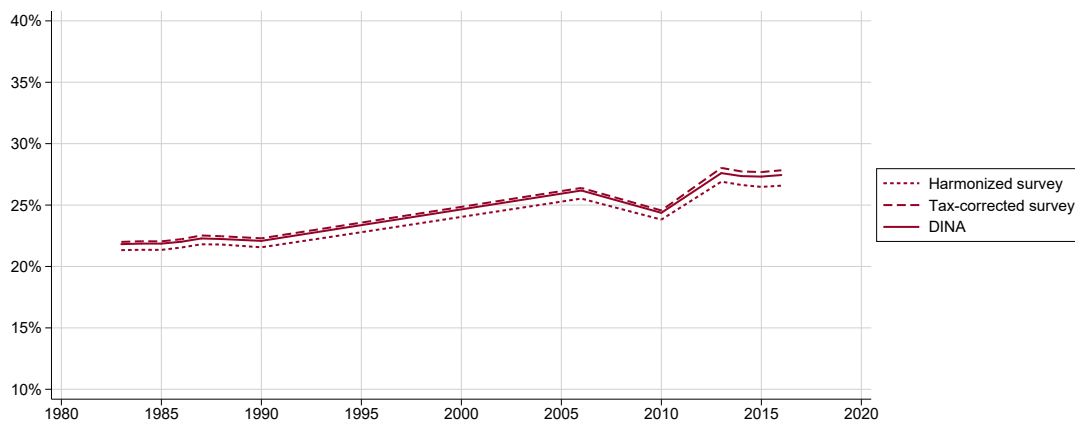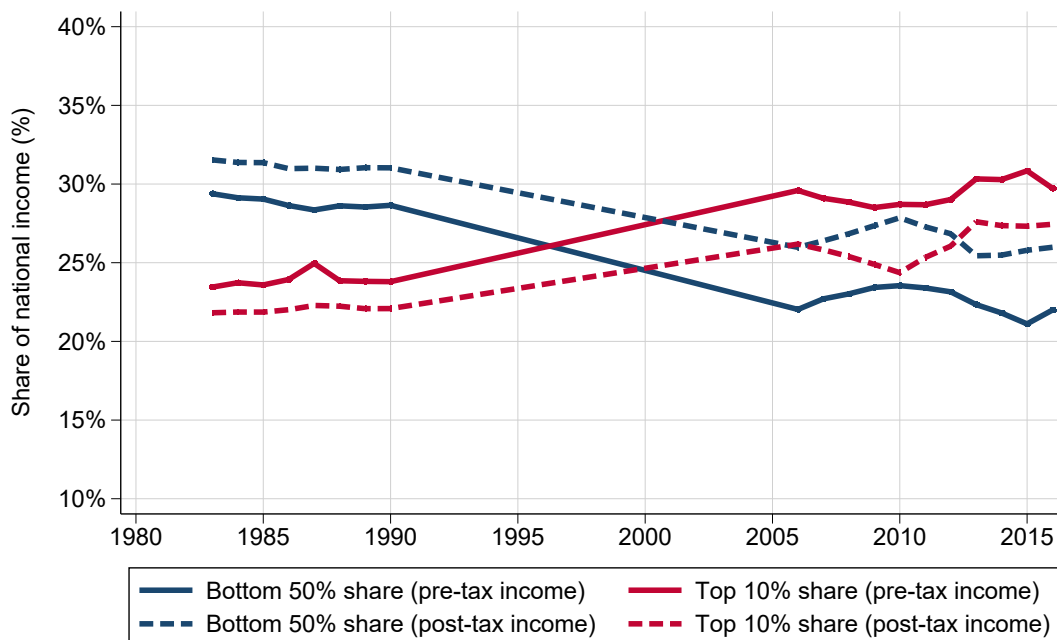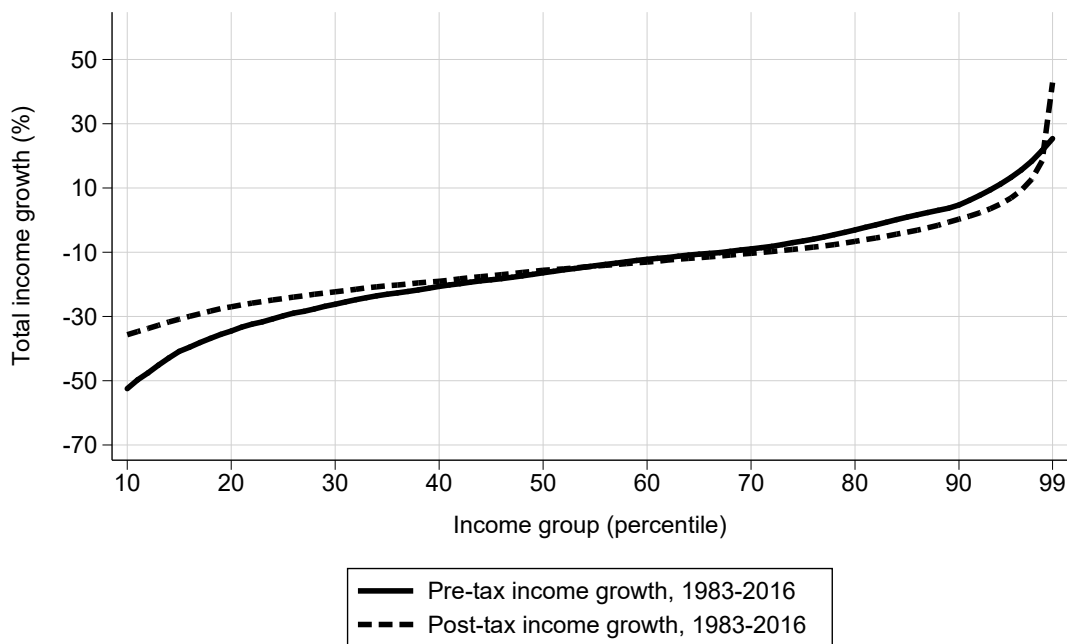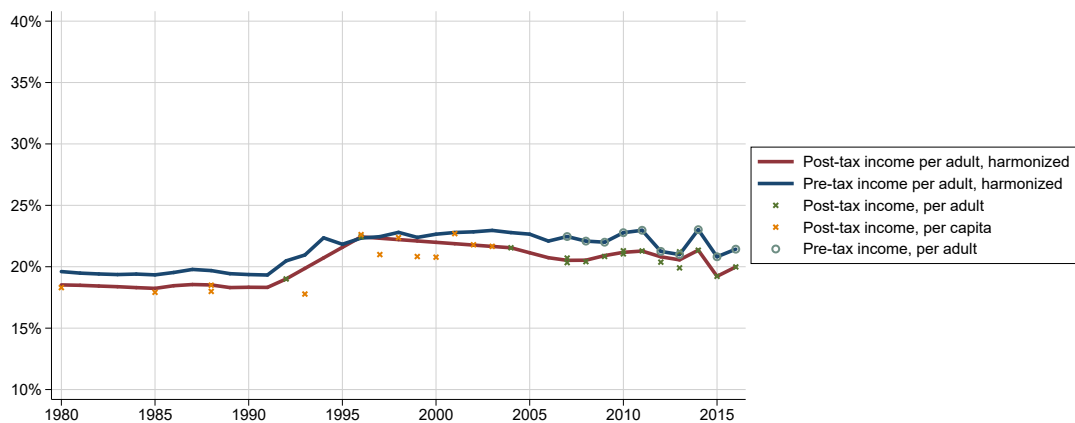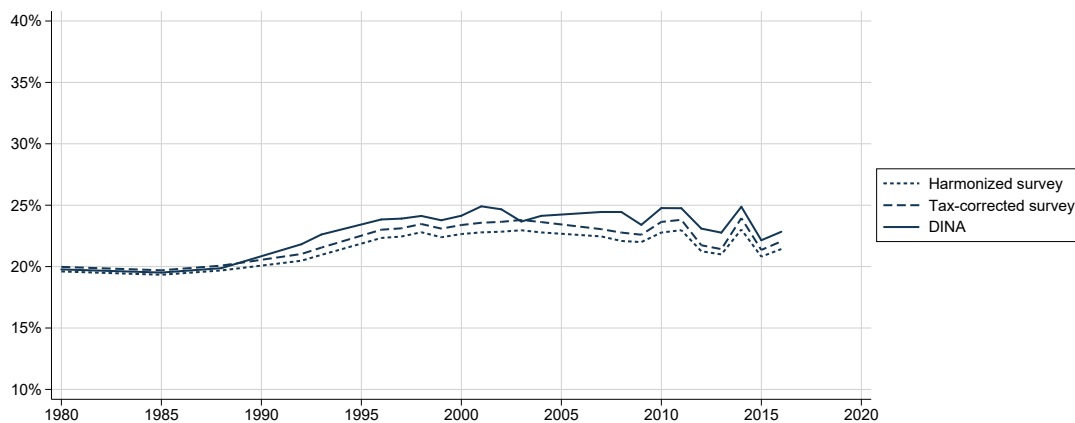## D.34　Slovenia

Table D.39: Slovenia: sources available by year

Year	Survey (tabulated)	Survey (microdata)	Tax data	Undistributed profits	Imputed rents
1980					
1981					
1982					
1983					
1984					
1985					
1986					
1987	x				
1988					
1989					
1990					
1991			x		
1992			x		
1993	x		x		
1994			x		
1995			x	x	x
1996			x	x	x
1997		x	x	x	x
1998			x	x	x
1999		x	x	x	x
2000			x	x	x
2001			x	x	x
2002			x	x	x
2003			x	x	x
2004		x	x	x	x
2005		x	x	x	x
2006		x	x	x	x
2007		x	x	x	x
2008		x	x	x	x
2009		x	x	x	x
2010		x	x	x	x
2011		x	x	x	x
2012		x	x	x	x
2013		x		x	x
2014		x		x	x
2015		x		x	x
2016		x		x	x
2017				x	x

Source: authors' computations.

Figure D.71: Slovenia: from tabulated surveys to distributional national accounts

(a) Top 10% income share: tabulated vs. harmonized surveys

(b) Top 10% pre-tax income share: harmonized surveys vs. DINA

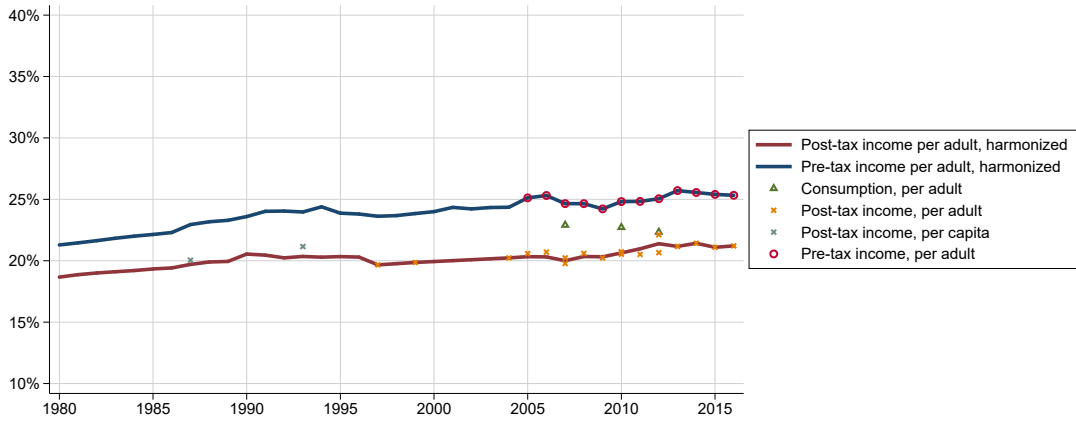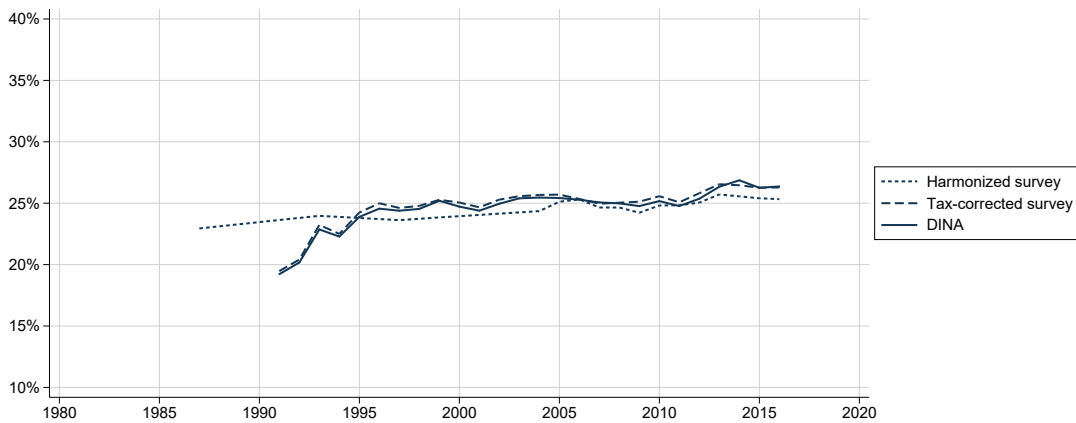(c) Top 10% post-tax income share: harmonized surveys vs. DINA
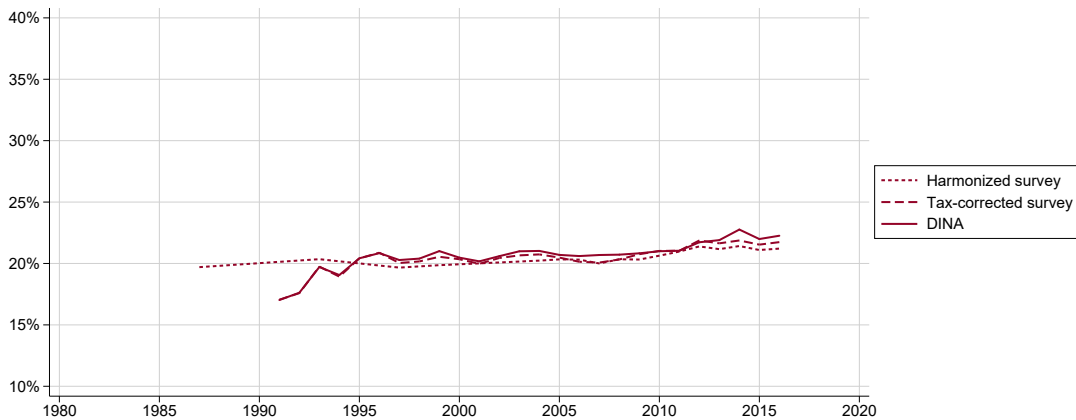
Figure D.72: Slovenia: main results

(a) Bottom 50% vs. Top 10% income shares
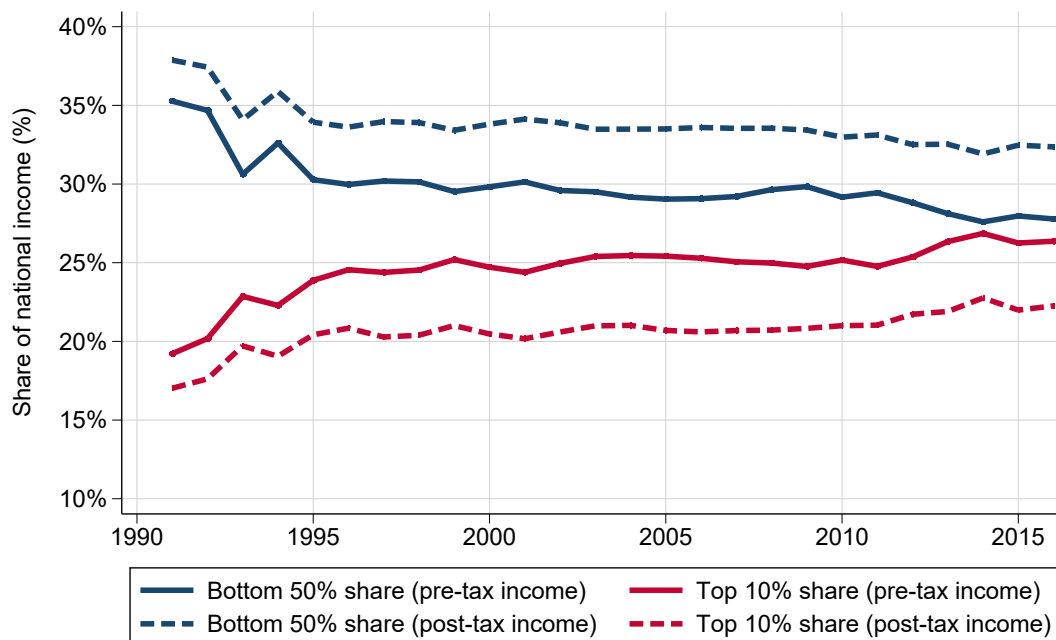
(b) Growth incidence curve
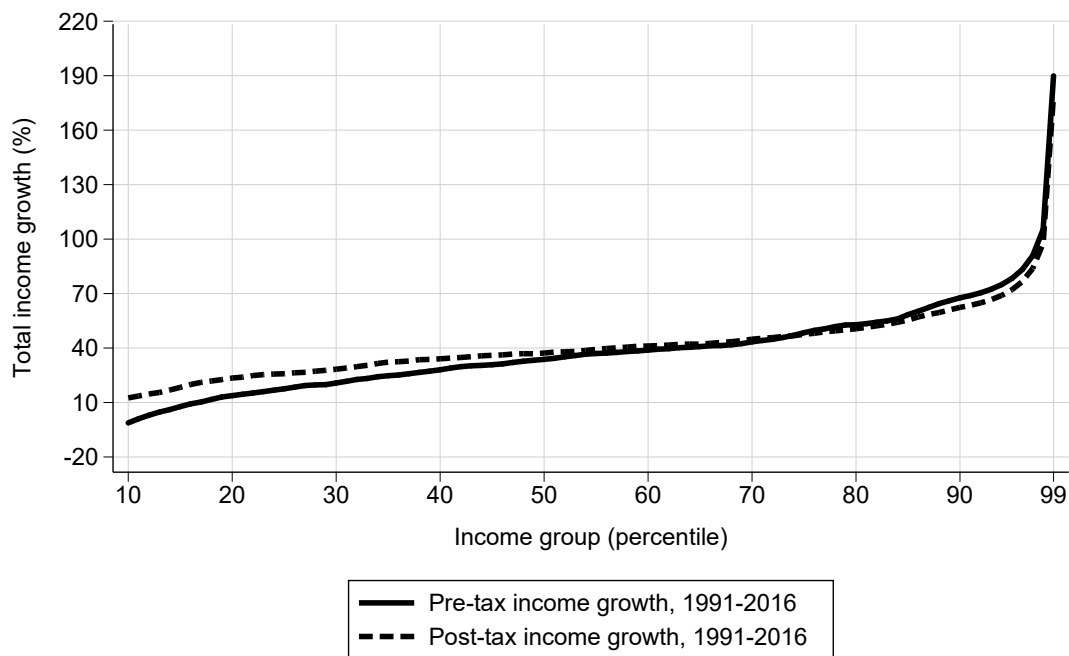
D.35   Spain

Table D.40: Spain: sources available by year

Year	Survey (tabulated)	Survey (microdata)	Tax data	Undistributed profits	Imputed rents
1980		x			
1981			x		
1982			x		
1983			x		
1984			x		
1985		x	x		
1986			x		
1987			x		
1988			x		
1989			x		
1990		x	x		
1991			x		
1992			x		
1993			x		
1994			x		
1995		x	x	x	x
1996			x	x	x
1997			x	x	x
1998			x	x	x
1999			x	x	x
2000		x	x	x	x
2001			x	x	x
2002			x	x	x
2003			x	x	x
2004		x	x	x	x
2005			x	x	x
2006		x	x	x	x
2007		x	x	x	x
2008		x	x	x	x
2009		x	x	x	x
2010		x	x	x	x
2011		x	x	x	x
2012		x	x	x	x
2013		x		x	x
2014		x		x	x
2015		x		x	x
2016		x		x	x
2017				x	x

Source: authors' computations.

Figure D.73: Spain: from tabulated surveys to distributional national accounts

(a) Top 10% income share: tabulated vs. harmonized surveys

(b) Top 10% pre-tax income share: harmonized surveys vs. DINA

(c) Top 10% post-tax income share: harmonized surveys vs. DINA

Figure D.74: Spain: main results

(a) Bottom 50% vs. Top 10% income shares

(b) Growth incidence curve

D.36   Sweden

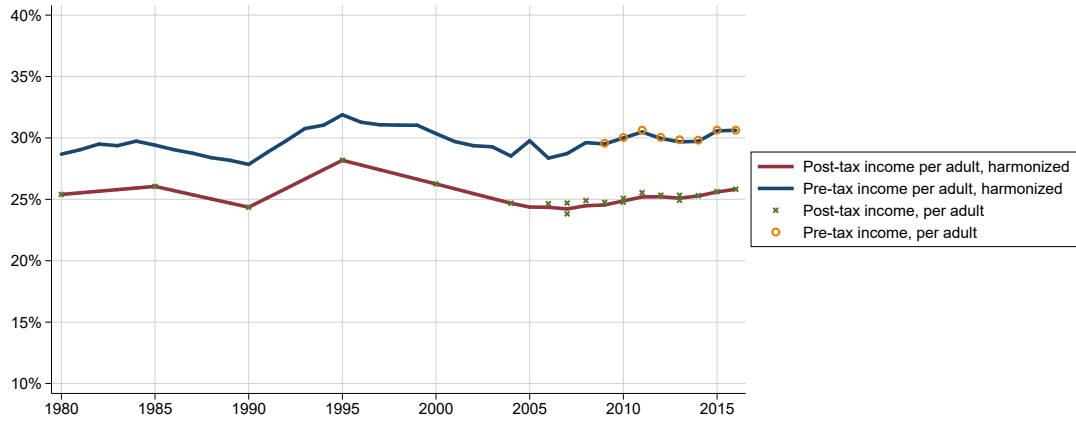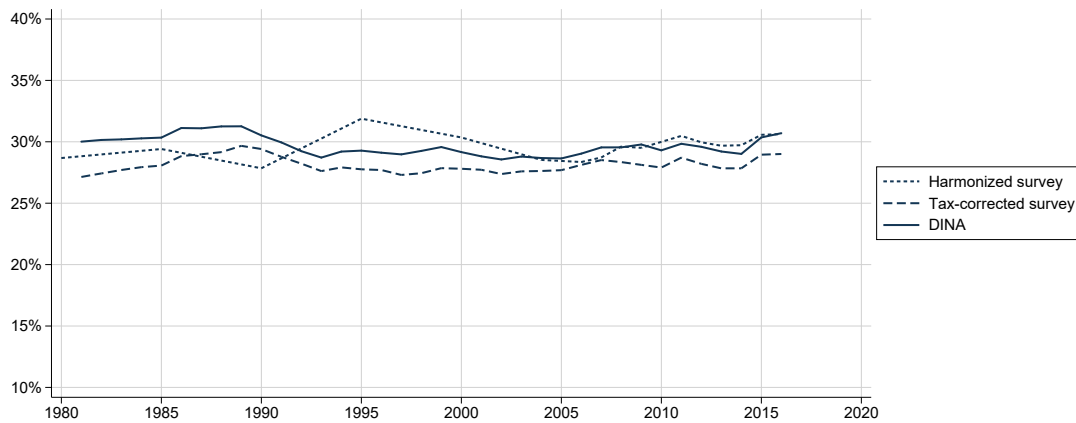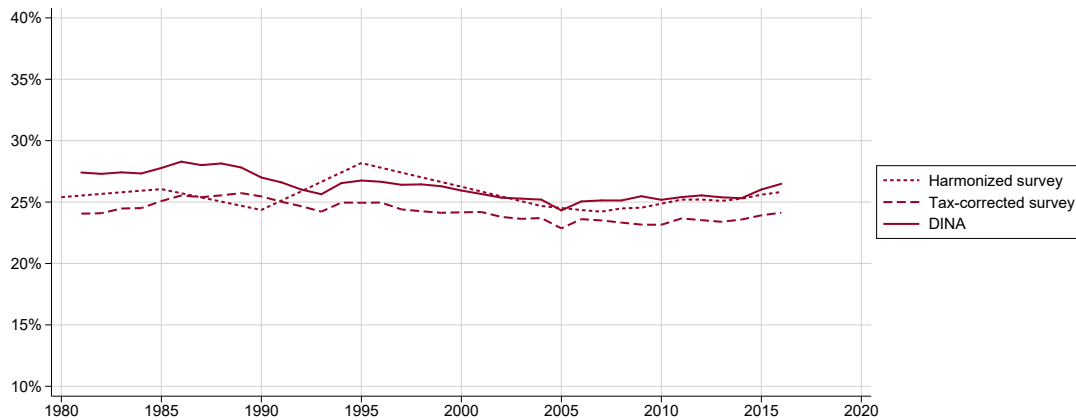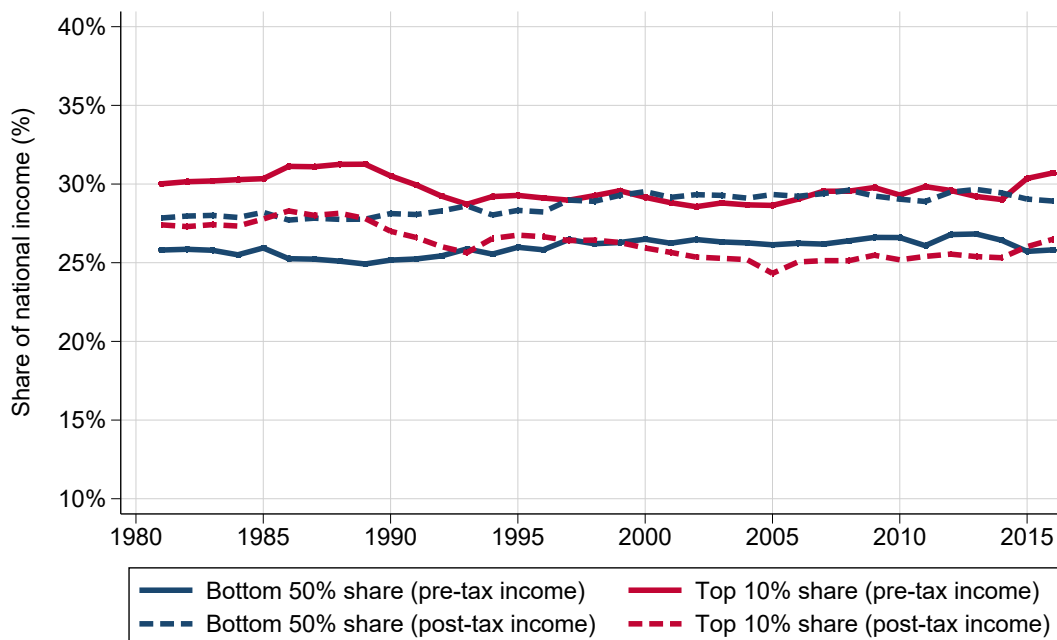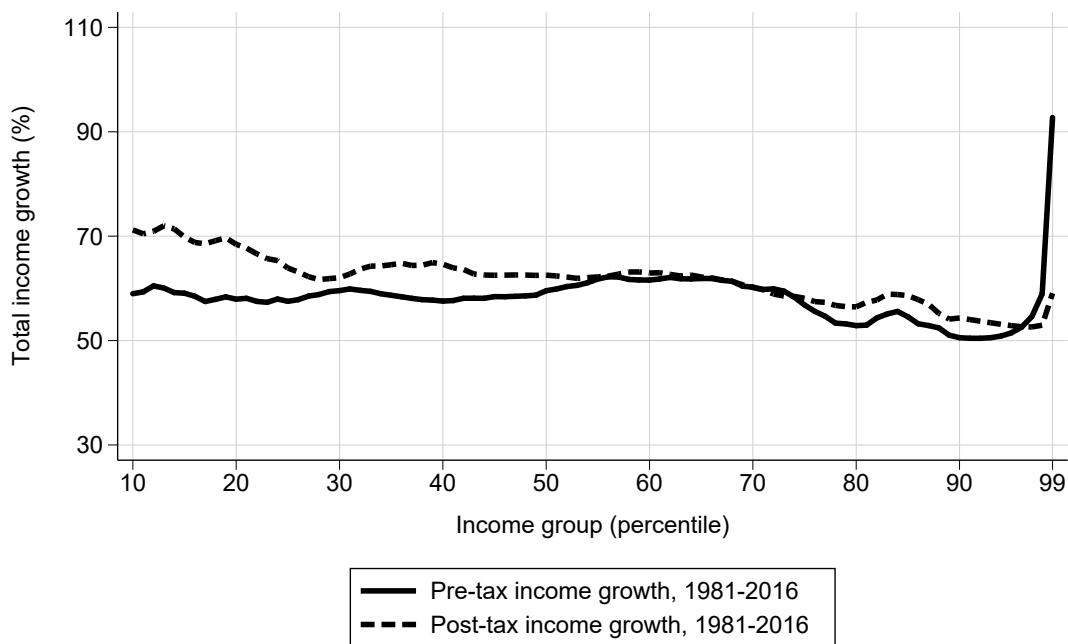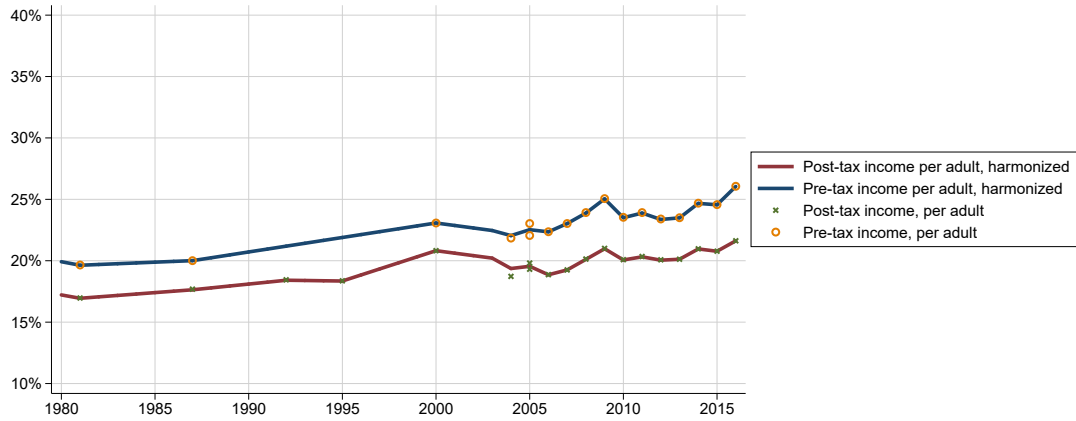Table D.41: Sweden: sources available by year

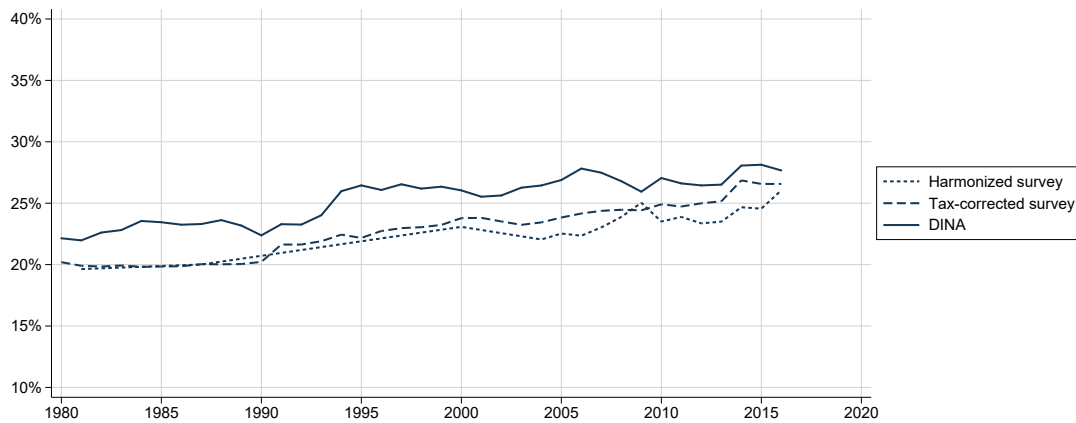| Year	Survey (tabulated)	Survey (microdata)	Tax data	Undistributed profits	Imputed rents
1980			x		x
1981		x	x		x
1982			x		x
1983			x		x
1984			x		x
1985			x		x
1986			x		x
1987		x	x		x
1988			x		x
1989			x		x
1990			x		x
1991			x		x
1992		x	x		x
1993			x		x
1994			x		x
1995		x	x	x	x
1996			x	x	x
1997			x	x	x
1998			x	x	x
1999			x	x	x
2000		x	x	x	x
2001			x	x	x
2002			x	x	x
2003			x	x	x
2004		x	x	x	x
2005		x	x	x	x
2006		x	x	x	x
2007		x	x	x	x
2008		x	x	x	x
2009		x	x	x	x
2010		x	x	x	x
2011		x	x	x	x
2012		x	x	x	x
2013		x	x	x	x
2014		x		x	x
2015		x		x	x
2016		x		x	x
2017				x	x

Source: authors' computations.

Figure D.75: Sweden: from tabulated surveys to distributional national accounts

(a) Top 10% income share: tabulated vs. harmonized surveys

(b) Top 10% pre-tax income share: harmonized surveys vs. DINA

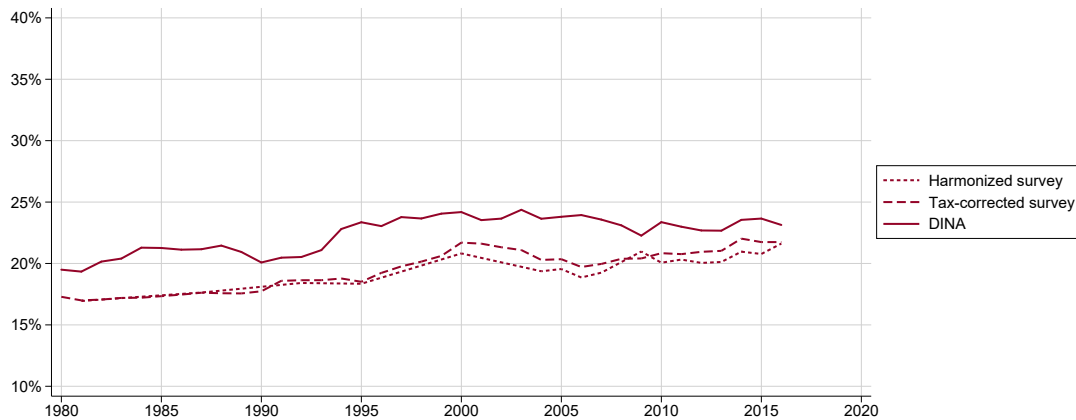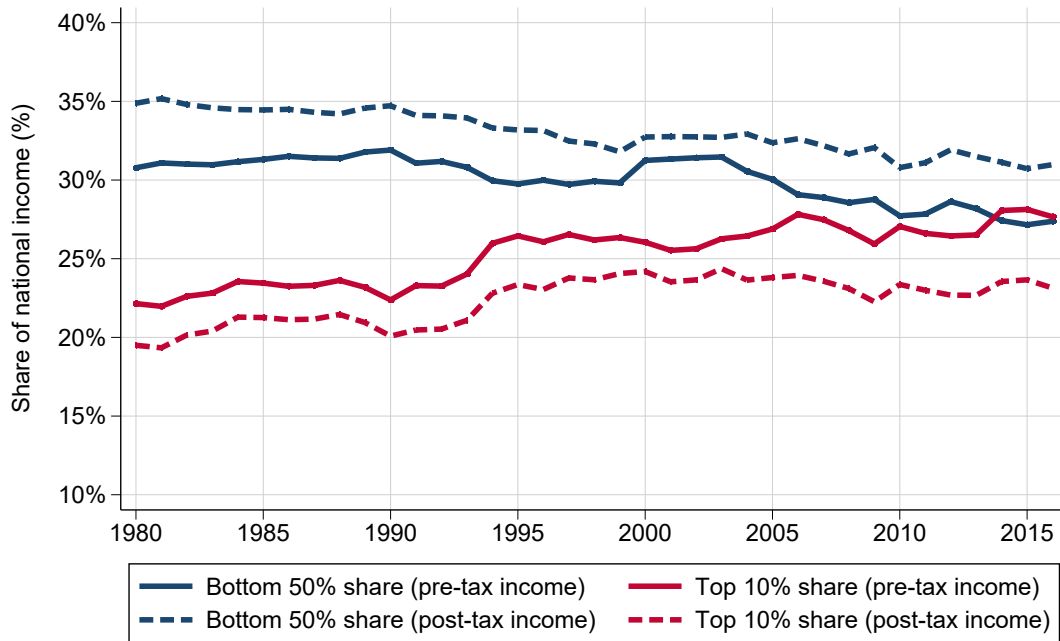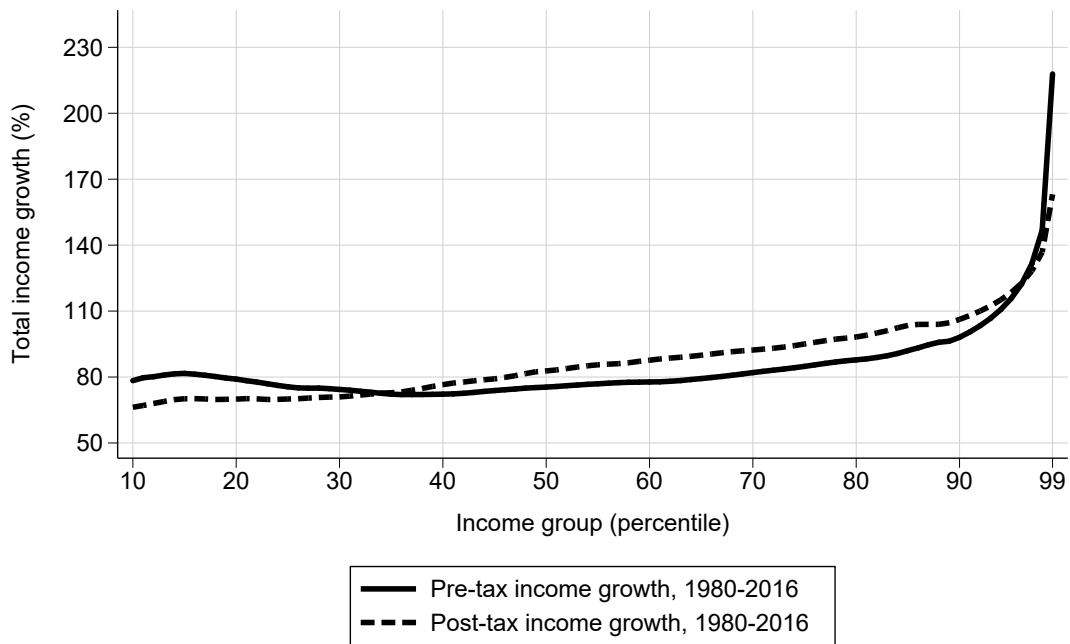(c) Top 10% post-tax income share: harmonized surveys vs. DINA

Figure D.76: Sweden: main results

(a) Bottom 50% vs. Top 10% income shares

(b) Growth incidence curve

D.37   Switzerland

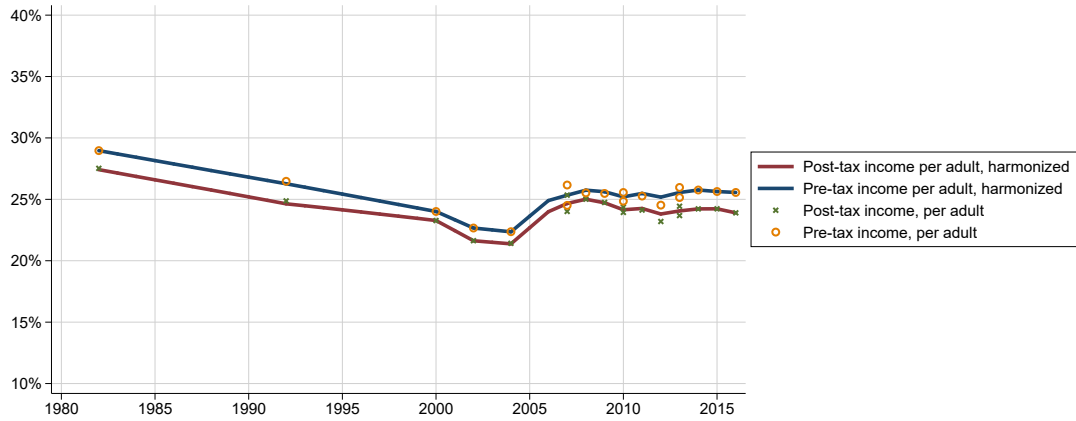Table D.42: Switzerland: sources available by year

Year	Survey (tabulated)	Survey (microdata)	Tax data	Undistributed profits	Imputed rents
1980					
1981			x		
1982		x			
1983			x		
1984					
1985			x		
1986					
1987			x		
1988					
1989			x		
1990					
1991			x		
1992		x			
1993			x		
1994					
1995			x		
1996			x		
1997			x		
1998			x		
1999			x		
2000		x	x		
2001			x		
2002		x	x		
2003			x		
2004		x	x		
2005			x		
2006			x		
2007		x	x		
2008		x	x		
2009		x	x		
2010		x	x		
2011		x	x		
2012		x	x		
2013		x	x		
2014		x	x		
2015		x			
2016		x			
2017					

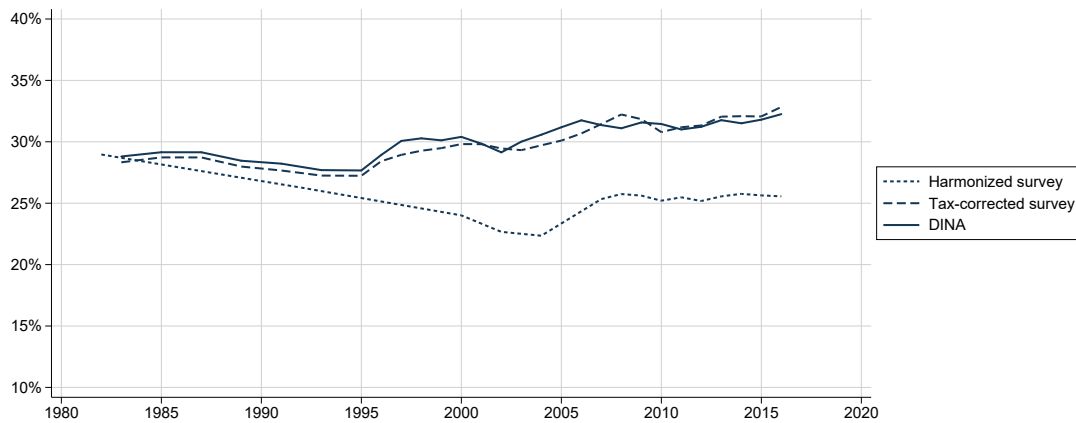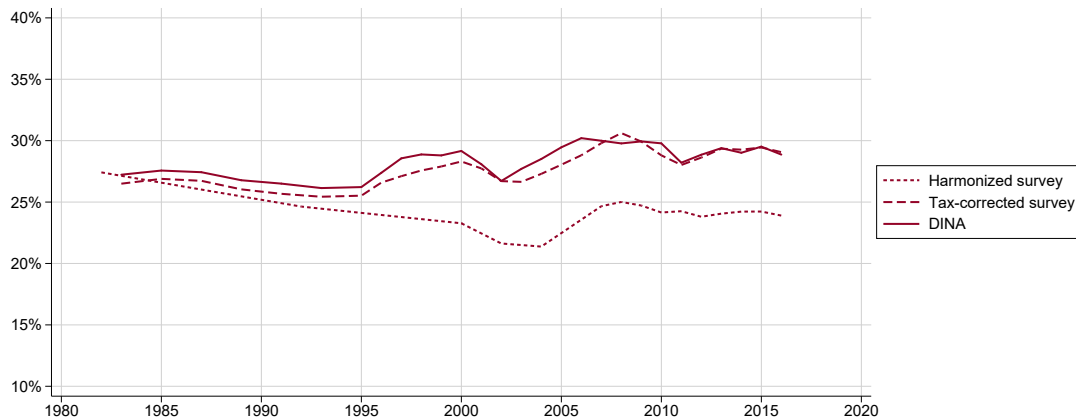*Source*: authors' computations.

*Appendix*

Figure D.77: Switzerland: from tabulated surveys to distributional national accounts

(a) Top 10% income share: tabulated vs. harmonized surveys

(b) Top 10% pre-tax income share: harmonized surveys vs. DINA

(c) Top 10% post-tax income share: harmonized surveys vs. DINA

Figure D.78: Switzerland: main results

(a) Bottom 50% vs. Top 10% income shares
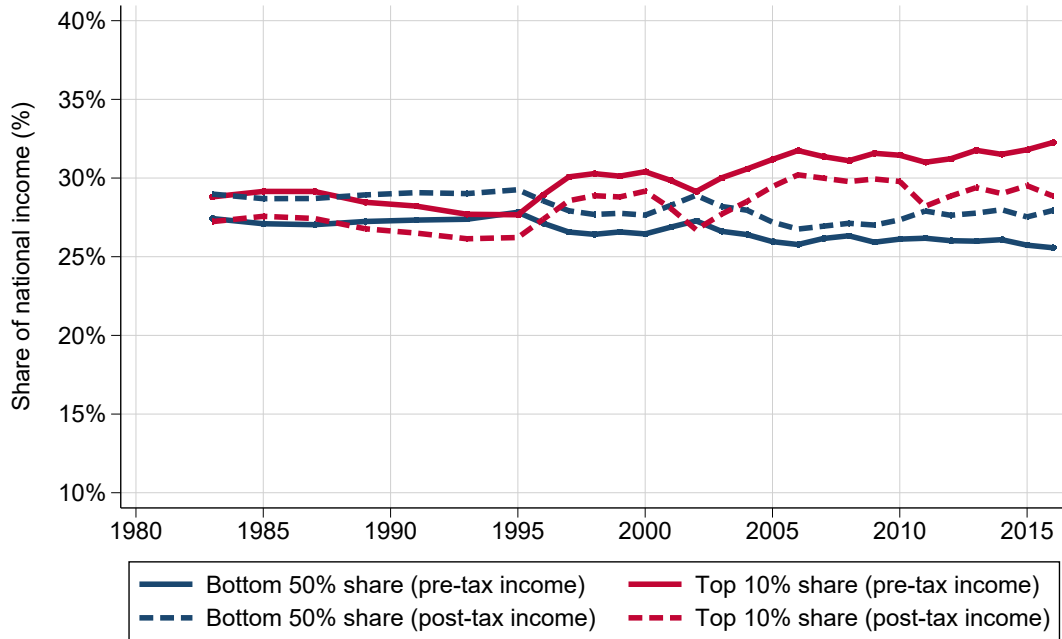
(b) Growth incidence curve
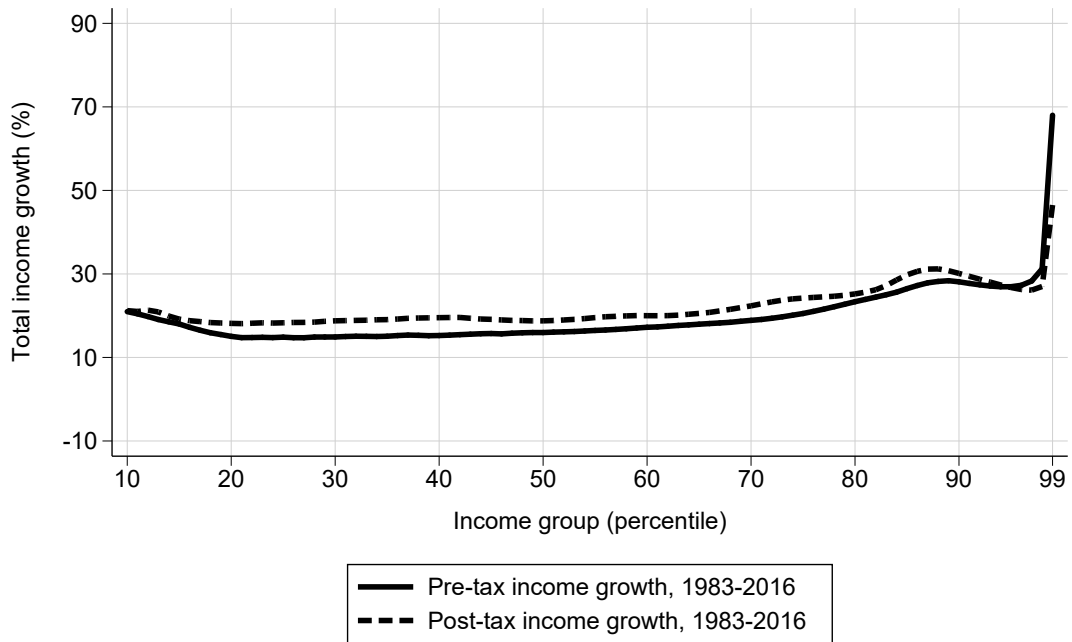
D.38 United Kingdom

Table D.43: United Kingdom: sources available by year

Year	Survey (tabulated)	Survey (microdata)	Tax data	Undistributed profits	Imputed rents
1980					
1981			x		
1982			x		
1983			x		
1984			x		
1985			x		
1986		x	x		
1987			x		
1988			x		
1989			x		
1990			x	x	x
1991		x	x	x	x
1992			x	x	x
1993			x	x	x
1994		x	x	x	x
1995		x	x	x	x
1996			x	x	x
1997			x	x	x
1998			x	x	x
1999		x	x	x	x
2000			x	x	x
2001			x	x	x
2002			x	x	x
2003			x	x	x
2004		x	x	x	x
2005			x	x	x
2006		x	x	x	x
2007		x	x	x	x
2008		x	x	x	x
2009		x	x	x	x
2010		x	x	x	x
2011		x	x	x	x
2012		x	x	x	x
2013		x	x	x	x
2014		x	x	x	x
2015		x		x	x
2016		x		x	x
2017				x	x

Source: authors' computations.

Figure D.79: United Kingdom: from tabulated surveys to distributional national accounts

(a) Top 10% income share: tabulated vs. harmonized surveys
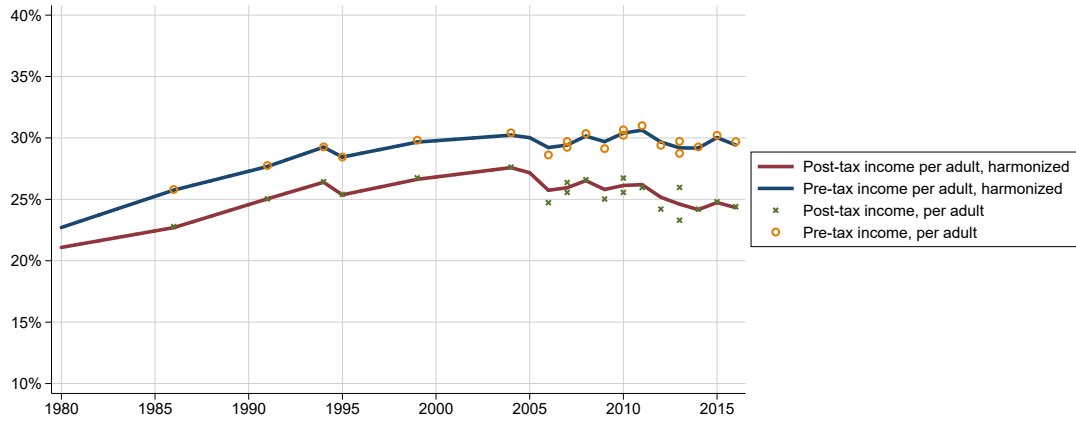
(b) Top 10% pre-tax income share: harmonized surveys vs. DINA
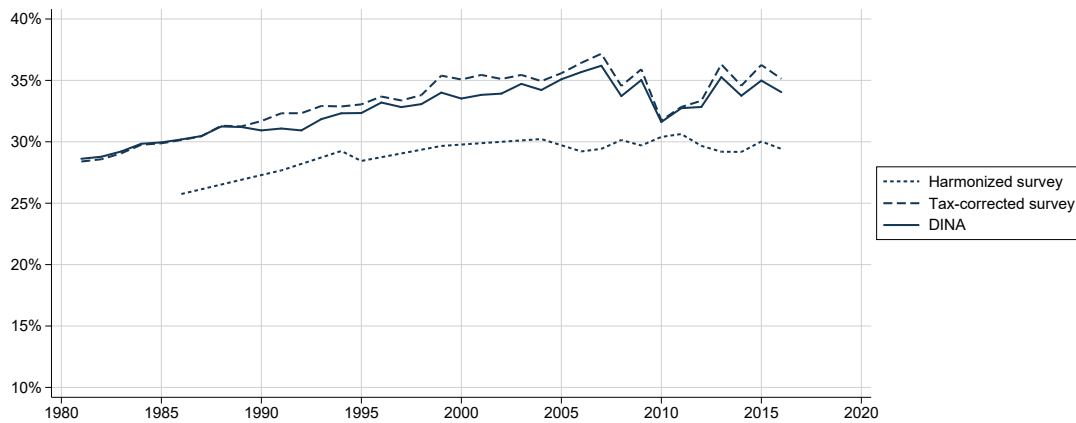
(c) Top 10% post-tax income share: harmonized surveys vs. DINA
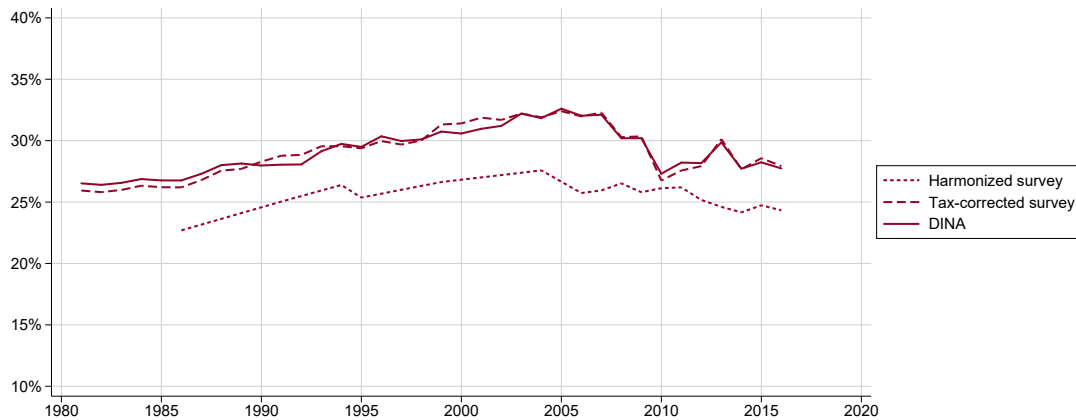
Figure D.80: United Kingdom: main results

(a) Bottom 50% vs. Top 10% income shares
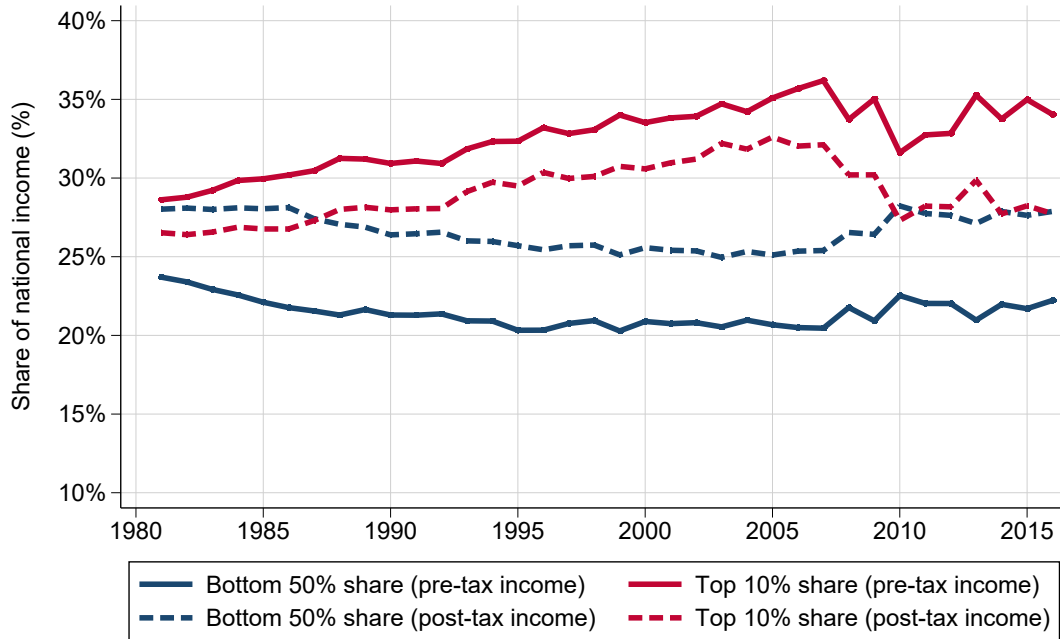
(b) Growth incidence curve
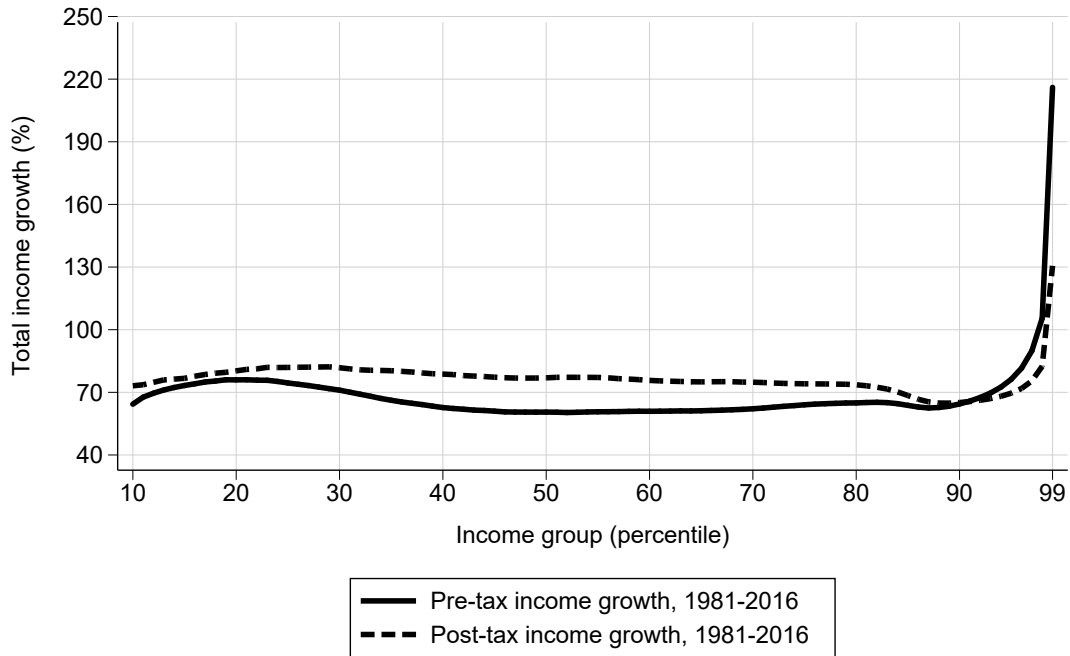
E   Main results by region

E.1   Eastern Europe

Figure E.81: Income inequality in Eastern Europe: main results

(a) Bottom 50% and top 10% income shares
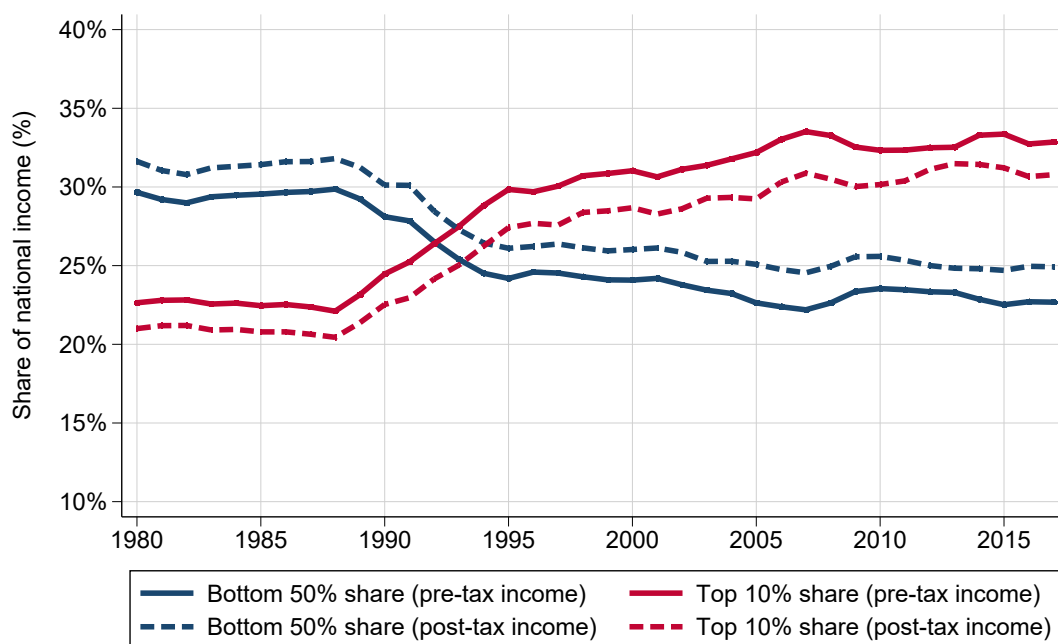
(b) Growth incidence curve
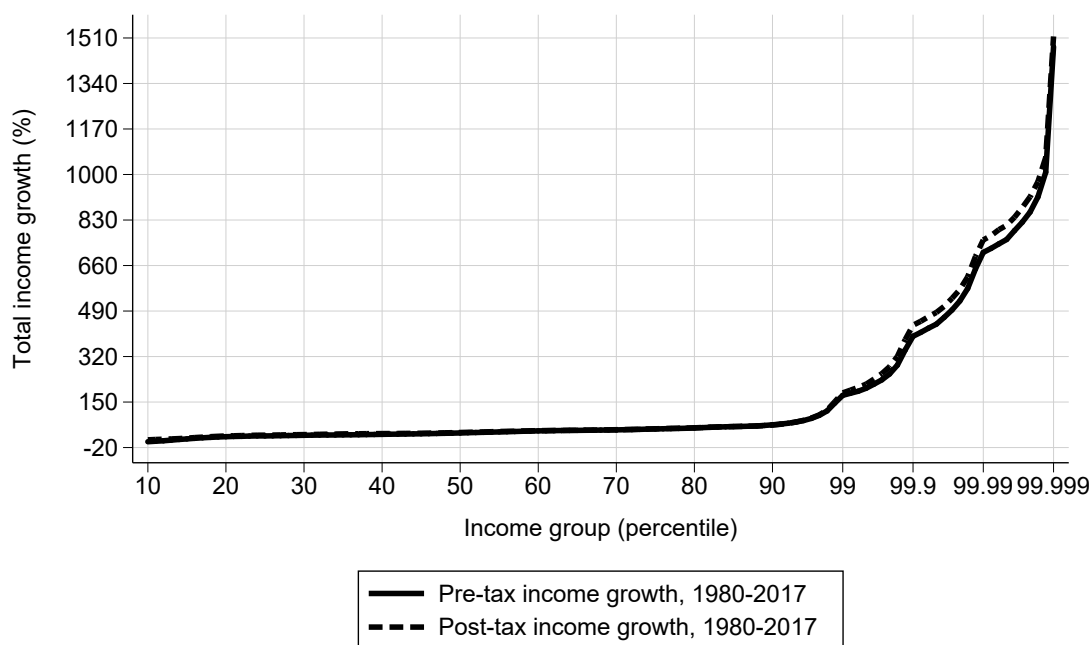
Table E.44: Income inequality and growth in Eastern Europe

	Average annual income growth (%)				
	1980-2017	1980-1990	1990-2000	2000-2007	2007-2017
Pre-tax income					
Bottom 50 %	0.6 %	-0.6 %	-1.6 %	3.1 %	2.2 %
Middle 40 %	1.0 %	-0.1 %	-0.8 %	3.9 %	1.9 %
Top 10 %	2.3 %	0.8 %	2.3 %	5.0 %	2.0 %
incl. Top 1 %	3.9 %	2.1 %	6.0 %	5.8 %	2.2 %
incl. Top 0.1 %	5.3 %	4.4 %	8.6 %	7.2 %	1.9 %
incl. Top 0.01 %	6.5 %	6.8 %	10.2 %	8.7 %	1.2 %
incl. Top 0.001 %	7.6 %	9.6 %	11.8 %	9.6 %	0.3 %
Full population	1.3 %	-0.0 %	-0.1 %	4.1 %	2.0 %
Post-tax income					
Bottom 50 %	0.6 %	-0.5 %	-1.6 %	3.1 %	2.2 %
Middle 40 %	1.1 %	-0.0 %	-0.6 %	3.9 %	1.9 %
Top 10 %	2.3 %	0.7 %	2.2 %	5.2 %	2.0 %
incl. Top 1 %	3.9 %	1.6 %	6.7 %	6.6 %	1.7 %
incl. Top 0.1 %	5.4 %	3.8 %	10.9 %	7.9 %	-0.1 %
incl. Top 0.01 %	6.4 %	6.5 %	14.0 %	9.4 %	-2.5 %
incl. Top 0.001 %	7.4 %	10.1 %	15.6 %	10.9 %	-4.9 %
Full population	1.3 %	-0.0 %	-0.1 %	4.1 %	2.0 %
	Share of growth captured (%)				
	1980-2017	1980-1990	1990-2000	2000-2007	2007-2017
Pre-tax income					
Bottom 50 %	11.6 %	1196.9 %	334.4 %	17.7 %	24.6 %
Middle 40 %	36.3 %	355.4 %	272.2 %	42.0 %	41.8 %
Top 10 %	52.1 %	-1452.3 %	-506.6 %	40.3 %	33.6 %
incl. Top 1 %	21.5 %	-696.5 %	-323.2 %	13.8 %	11.5 %
incl. Top 0.1 %	7.2 %	-285.6 %	-114.0 %	5.0 %	3.0 %
incl. Top 0.01 %	2.2 %	-97.0 %	-35.9 %	1.8 %	0.6 %
incl. Top 0.001 %	0.7 %	-32.1 %	-11.8 %	0.6 %	0.0 %
Full population	100.0 %	100.0 %	100.0 %	100.0 %	100.0 %
Post-tax income					
Bottom 50 %	13.2 %	1085.4 %	340.9 %	19.0 %	26.2 %
Middle 40 %	37.9 %	75.2 %	218.2 %	42.0 %	41.4 %
Top 10 %	49.0 %	-1060.6 %	-459.1 %	39.0 %	32.4 %
incl. Top 1 %	19.3 %	-452.2 %	-310.5 %	14.4 %	8.1 %
incl. Top 0.1 %	6.0 %	-196.2 %	-126.0 %	5.4 %	-0.2 %
incl. Top 0.01 %	1.6 %	-68.5 %	-43.5 %	2.0 %	-1.1 %
incl. Top 0.001 %	0.5 %	-24.2 %	-14.2 %	0.8 %	-0.7 %
Full population	100.0 %	100.0 %	100.0 %	100.0 %	100.0 %

Source: authors' computations.

E.2   European Union (eu15)

Figure E.83: Income inequality in European Union (eu15): main results

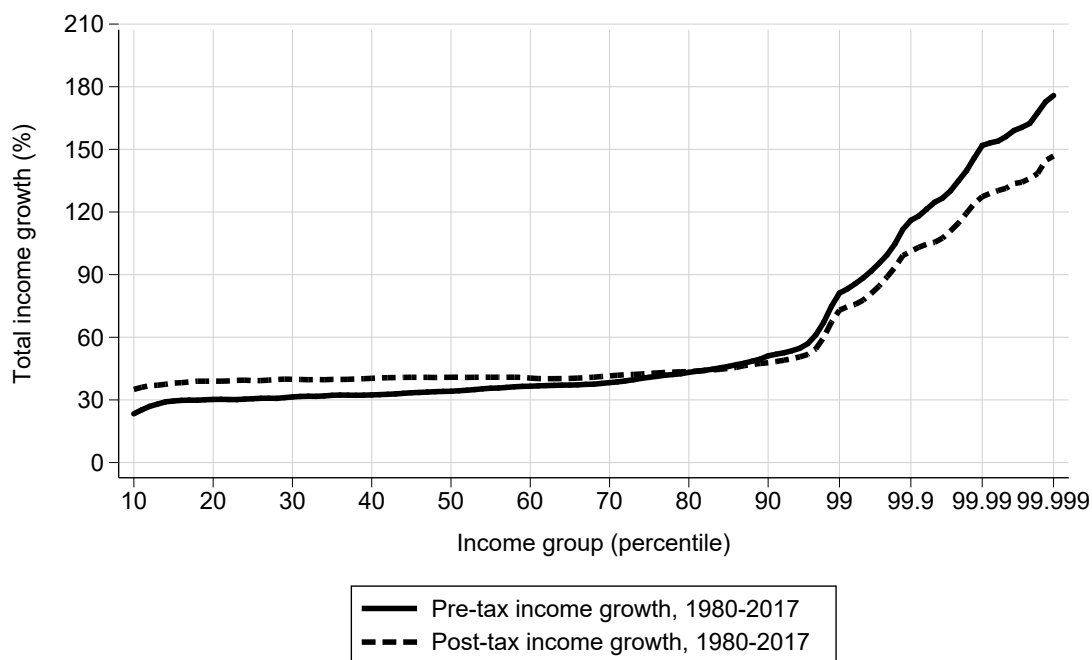(a) Bottom 50% and top 10% income shares
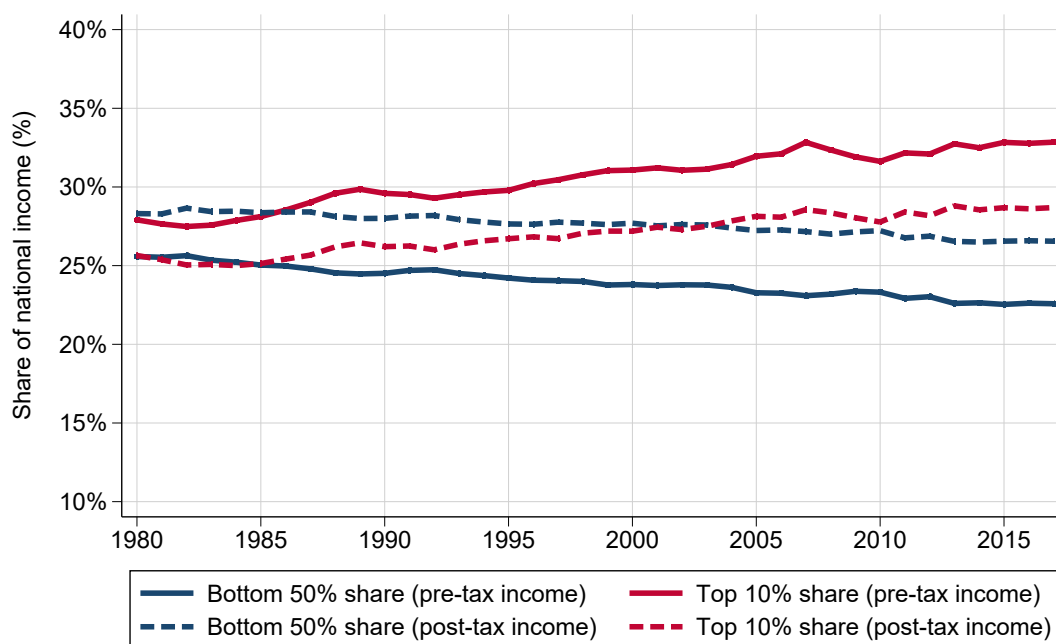
(b) Growth incidence curve

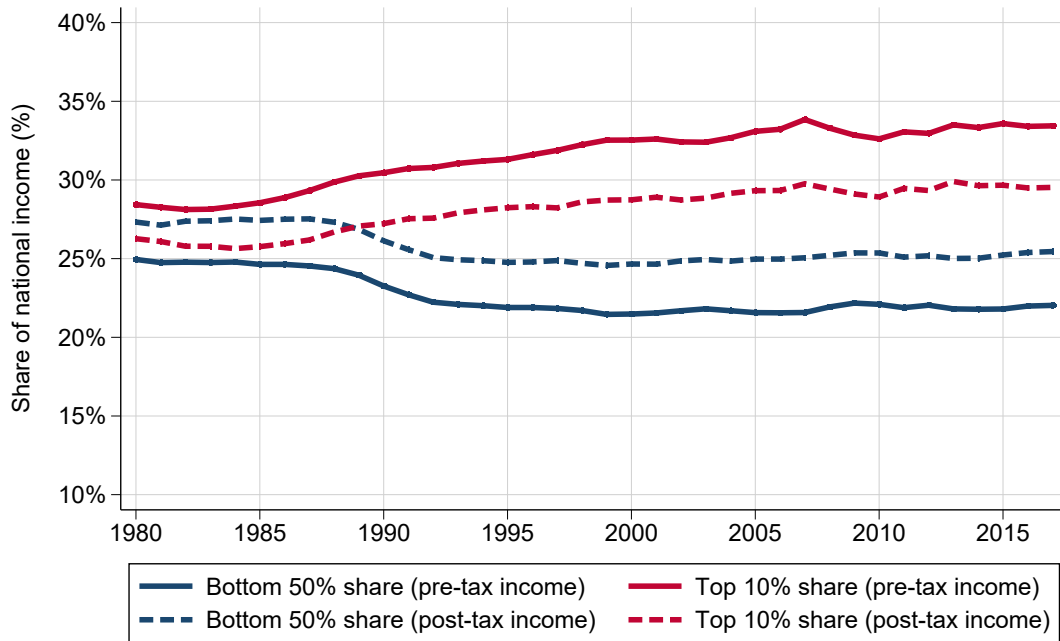Table E.45: Income inequality and growth in European Union (eu15)

	Average annual income growth (%)				
	1980-2017	1980-1990	1990-2000	2000-2007	2007-2017
Pre-tax income					
Bottom 50 %	0.8 %	1.0 %	1.1 %	0.8 %	0.0 %
Middle 40 %	0.9 %	1.3 %	1.2 %	1.0 %	0.2 %
Top 10 %	1.5 %	2.2 %	1.9 %	2.0 %	-0.1 %
incl. Top 1 %	1.9 %	2.9 %	2.8 %	2.7 %	-0.4 %
incl. Top 0.1 %	2.3 %	4.0 %	3.2 %	3.3 %	-0.9 %
incl. Top 0.01 %	2.5 %	5.0 %	3.1 %	3.9 %	-1.5 %
incl. Top 0.001 %	2.5 %	5.6 %	2.9 %	4.9 %	-2.4 %
Full population	1.0 %	1.5 %	1.4 %	1.3 %	0.1 %
Post-tax income					
Bottom 50 %	0.9 %	1.2 %	1.3 %	0.7 %	0.1 %
Middle 40 %	1.0 %	1.4 %	1.2 %	1.0 %	0.3 %
Top 10 %	1.4 %	1.9 %	1.8 %	2.3 %	-0.3 %
incl. Top 1 %	1.9 %	2.2 %	2.5 %	4.2 %	-0.8 %
incl. Top 0.1 %	2.3 %	2.7 %	3.3 %	5.9 %	-1.4 %
incl. Top 0.01 %	2.7 %	3.3 %	4.1 %	7.0 %	-2.2 %
incl. Top 0.001 %	2.8 %	3.4 %	5.4 %	7.4 %	-3.4 %
Full population	1.0 %	1.5 %	1.4 %	1.3 %	0.1 %
	Share of growth captured (%)				
	1980-2017	1980-1990	1990-2000	2000-2007	2007-2017
Pre-tax income					
Bottom 50 %	17.8 %	17.7 %	20.0 %	15.2 %	13.5 %
Middle 40 %	39.7 %	39.7 %	37.1 %	34.9 %	132.1 %
Top 10 %	42.5 %	42.6 %	42.9 %	49.9 %	-45.6 %
incl. Top 1 %	16.3 %	15.6 %	18.0 %	21.3 %	-53.3 %
incl. Top 0.1 %	6.2 %	6.6 %	6.9 %	8.9 %	-40.5 %
incl. Top 0.01 %	2.3 %	2.9 %	2.4 %	3.9 %	-25.1 %
incl. Top 0.001 %	0.8 %	1.1 %	0.8 %	1.8 %	-15.0 %
Full population	100.0 %	100.0 %	100.0 %	100.0 %	100.0 %
Post-tax income					
Bottom 50 %	21.8 %	22.9 %	24.5 %	14.6 %	44.6 %
Middle 40 %	41.7 %	43.0 %	39.6 %	32.5 %	153.5 %
Top 10 %	36.5 %	34.1 %	35.9 %	52.8 %	-98.1 %
incl. Top 1 %	13.7 %	10.2 %	13.4 %	28.0 %	-87.6 %
incl. Top 0.1 %	5.3 %	3.5 %	5.3 %	13.1 %	-55.6 %
incl. Top 0.01 %	2.0 %	1.4 %	2.2 %	5.6 %	-31.8 %
incl. Top 0.001 %	0.7 %	0.5 %	1.1 %	2.3 %	-18.0 %
Full population	100.0 %	100.0 %	100.0 %	100.0 %	100.0 %

Source: authors' computations.

E.3   European Union (eu28)

Figure E.85: Income inequality in European Union (eu28): main results

(a) Bottom 50% and top 10% income shares
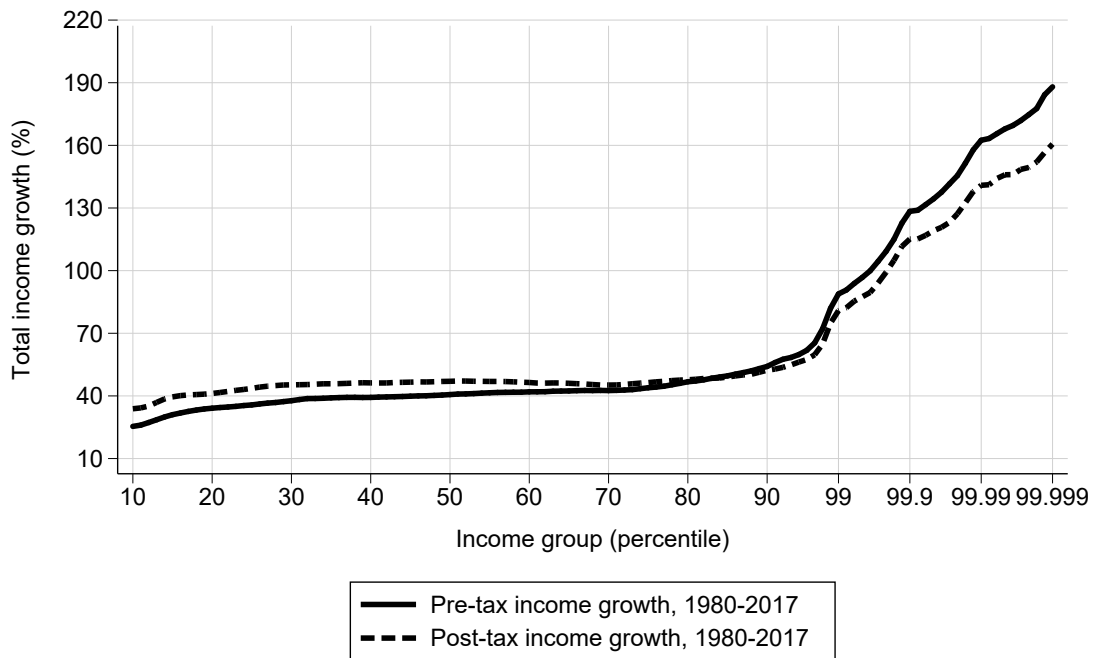

(b) Growth incidence curve

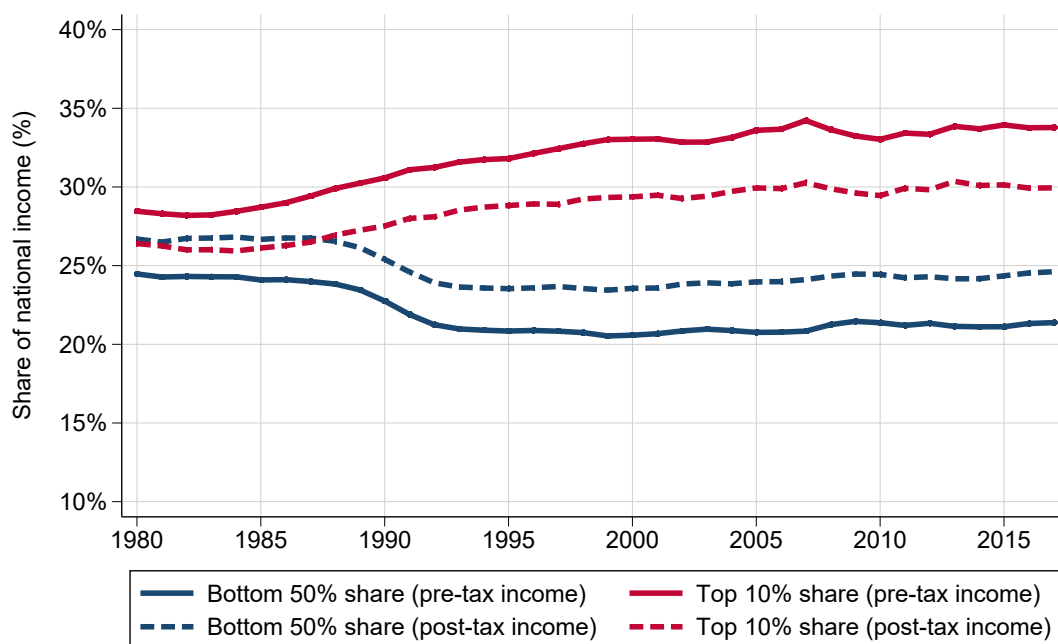Table E.46: Income inequality and growth in European Union (eu28)

	Average annual income growth (%)				
	1980-2017	1980-1990	1990-2000	2000-2007	2007-2017
Pre-tax income					
Bottom 50 %	0.8 %	0.7 %	0.6 %	1.7 %	0.7 %
Middle 40 %	1.0 %	1.2 %	1.2 %	1.2 %	0.4 %
Top 10 %	1.6 %	2.2 %	2.1 %	2.1 %	0.1 %
incl. Top 1 %	2.1 %	2.9 %	2.9 %	2.9 %	-0.1 %
incl. Top 0.1 %	2.4 %	3.9 %	3.3 %	3.5 %	-0.6 %
incl. Top 0.01 %	2.6 %	5.0 %	3.2 %	4.1 %	-1.3 %
incl. Top 0.001 %	2.6 %	5.6 %	3.1 %	4.9 %	-2.2 %
Full population	1.1 %	1.4 %	1.3 %	1.6 %	0.4 %
Post-tax income					
Bottom 50 %	0.9 %	0.8 %	0.7 %	1.6 %	0.7 %
Middle 40 %	1.0 %	1.3 %	1.3 %	1.1 %	0.4 %
Top 10 %	1.5 %	1.9 %	1.9 %	2.4 %	-0.0 %
incl. Top 1 %	2.0 %	2.3 %	2.7 %	4.3 %	-0.5 %
incl. Top 0.1 %	2.4 %	2.7 %	3.5 %	6.0 %	-1.3 %
incl. Top 0.01 %	2.8 %	3.3 %	4.3 %	7.1 %	-2.2 %
incl. Top 0.001 %	2.9 %	3.5 %	5.5 %	7.6 %	-3.3 %
Full population	1.1 %	1.4 %	1.3 %	1.6 %	0.4 %
	Share of growth captured (%)				
	1980-2017	1980-1990	1990-2000	2000-2007	2007-2017
Pre-tax income					
Bottom 50 %	17.6 %	12.0 %	9.8 %	22.5 %	41.2 %
Middle 40 %	39.8 %	41.1 %	41.3 %	33.6 %	49.7 %
Top 10 %	42.7 %	46.9 %	48.9 %	43.9 %	9.1 %
incl. Top 1 %	16.1 %	17.0 %	20.0 %	18.5 %	-4.3 %
incl. Top 0.1 %	5.9 %	7.0 %	7.6 %	7.6 %	-6.5 %
incl. Top 0.01 %	2.2 %	3.0 %	2.7 %	3.2 %	-4.7 %
incl. Top 0.001 %	0.8 %	1.2 %	0.9 %	1.5 %	-2.9 %
Full population	100.0 %	100.0 %	100.0 %	100.0 %	100.0 %
Post-tax income					
Bottom 50 %	20.9 %	15.9 %	13.3 %	23.4 %	49.5 %
Middle 40 %	41.9 %	45.7 %	44.9 %	31.2 %	53.6 %
Top 10 %	37.2 %	38.4 %	41.8 %	45.4 %	-3.1 %
incl. Top 1 %	13.6 %	11.4 %	15.4 %	23.4 %	-14.0 %
incl. Top 0.1 %	5.0 %	3.8 %	6.1 %	10.8 %	-11.4 %
incl. Top 0.01 %	1.8 %	1.5 %	2.5 %	4.6 %	-6.8 %
incl. Top 0.001 %	0.7 %	0.5 %	1.1 %	1.9 %	-3.8 %
Full population	100.0 %	100.0 %	100.0 %	100.0 %	100.0 %

Source: authors' computations.

E.4 Europe

Figure E.87: Income inequality in Europe: main results

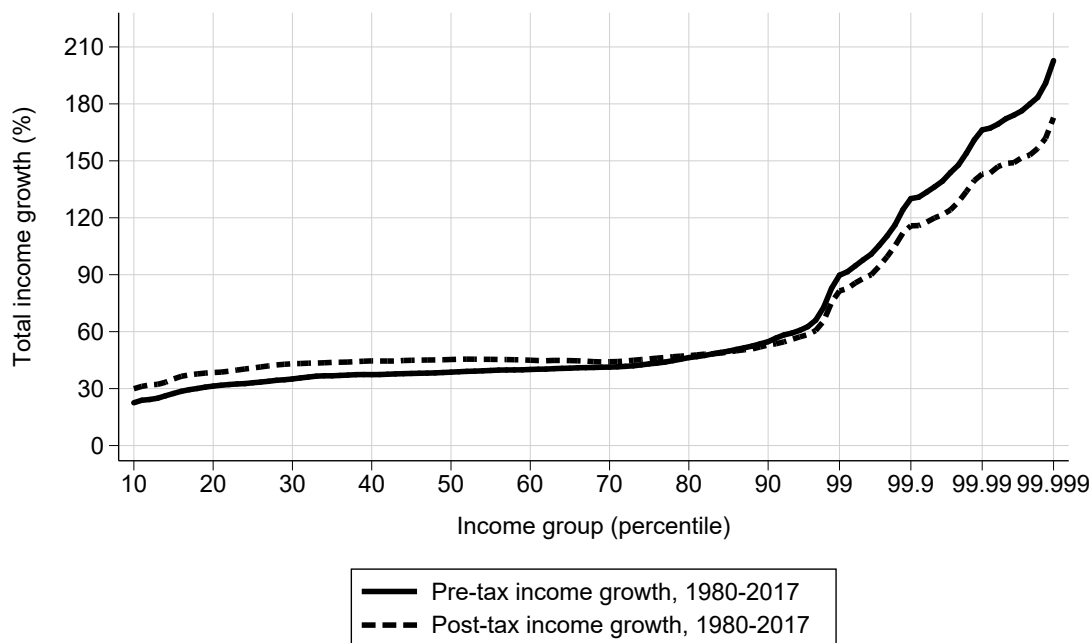(a) Bottom 50% and top 10% income shares

(b) Growth incidence curve

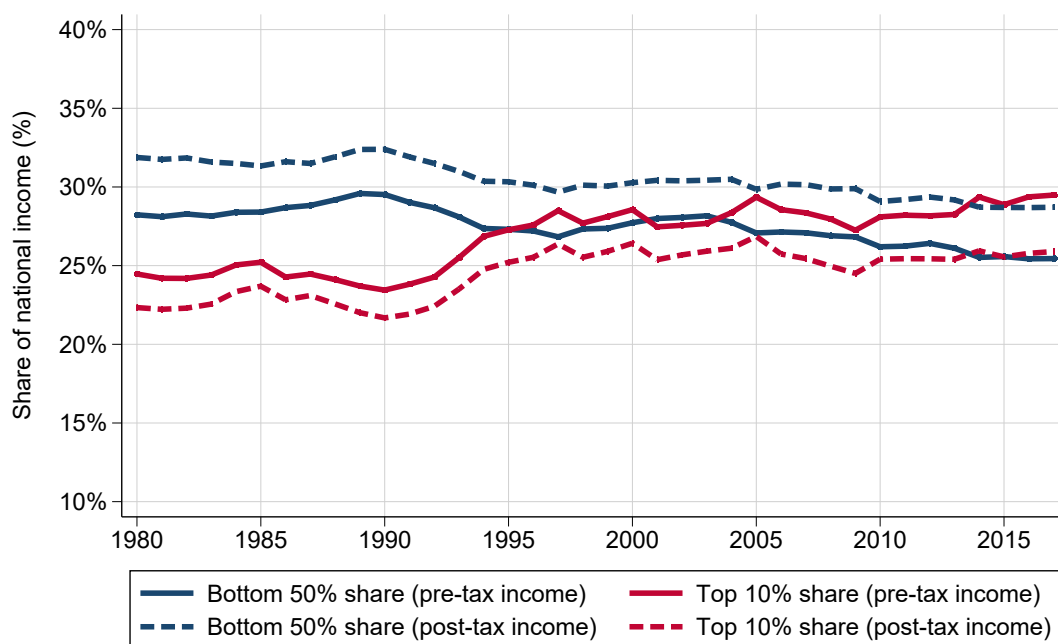Table E.47: Income inequality and growth in Europe

	Average annual income growth (%)				
	1980-2017	1980-1990	1990-2000	2000-2007	2007-2017
Pre-tax income					
Bottom 50 %	0.8 %	0.6 %	0.4 %	1.8 %	0.7 %
Middle 40 %	1.0 %	1.1 %	1.2 %	1.2 %	0.4 %
Top 10 %	1.6 %	2.1 %	2.2 %	2.1 %	0.1 %
incl. Top 1 %	2.1 %	2.8 %	3.1 %	2.8 %	-0.1 %
incl. Top 0.1 %	2.4 %	3.7 %	3.7 %	3.3 %	-0.6 %
incl. Top 0.01 %	2.6 %	4.8 %	3.7 %	3.8 %	-1.3 %
incl. Top 0.001 %	2.7 %	5.4 %	3.6 %	4.5 %	-2.1 %
Full population	1.1 %	1.3 %	1.4 %	1.6 %	0.4 %
Post-tax income					
Bottom 50 %	0.9 %	0.7 %	0.6 %	1.7 %	0.8 %
Middle 40 %	1.0 %	1.2 %	1.3 %	1.1 %	0.5 %
Top 10 %	1.5 %	1.9 %	2.1 %	2.3 %	-0.0 %
incl. Top 1 %	2.0 %	2.2 %	3.0 %	4.0 %	-0.5 %
incl. Top 0.1 %	2.4 %	2.6 %	4.0 %	5.4 %	-1.3 %
incl. Top 0.01 %	2.8 %	3.3 %	5.1 %	6.1 %	-2.2 %
incl. Top 0.001 %	2.9 %	3.5 %	6.7 %	5.9 %	-3.3 %
Full population	1.1 %	1.3 %	1.4 %	1.6 %	0.4 %
	Share of growth captured (%)				
	1980-2017	1980-1990	1990-2000	2000-2007	2007-2017
Pre-tax income					
Bottom 50 %	16.5 %	10.5 %	6.6 %	23.1 %	41.5 %
Middle 40 %	39.8 %	40.9 %	41.6 %	33.7 %	48.8 %
Top 10 %	43.7 %	48.6 %	51.8 %	43.3 %	9.7 %
incl. Top 1 %	16.5 %	17.5 %	21.2 %	17.9 %	-3.6 %
incl. Top 0.1 %	6.1 %	7.1 %	8.2 %	7.2 %	-6.0 %
incl. Top 0.01 %	2.2 %	3.1 %	3.0 %	3.0 %	-4.4 %
incl. Top 0.001 %	0.8 %	1.3 %	1.1 %	1.4 %	-2.7 %
Full population	100.0 %	100.0 %	100.0 %	100.0 %	100.0 %
Post-tax income					
Bottom 50 %	19.6 %	13.9 %	9.8 %	24.1 %	49.3 %
Middle 40 %	42.1 %	45.8 %	45.4 %	31.5 %	53.1 %
Top 10 %	38.3 %	40.3 %	44.8 %	44.4 %	-2.3 %
incl. Top 1 %	13.9 %	12.0 %	16.9 %	22.1 %	-13.1 %
incl. Top 0.1 %	5.1 %	4.0 %	6.9 %	9.9 %	-10.9 %
incl. Top 0.01 %	1.9 %	1.6 %	3.0 %	4.1 %	-6.6 %
incl. Top 0.001 %	0.7 %	0.5 %	1.4 %	1.5 %	-3.6 %
Full population	100.0 %	100.0 %	100.0 %	100.0 %	100.0 %

Source: authors' computations.

E.5   Northern Europe

Figure E.89: Income inequality in Northern Europe: main results

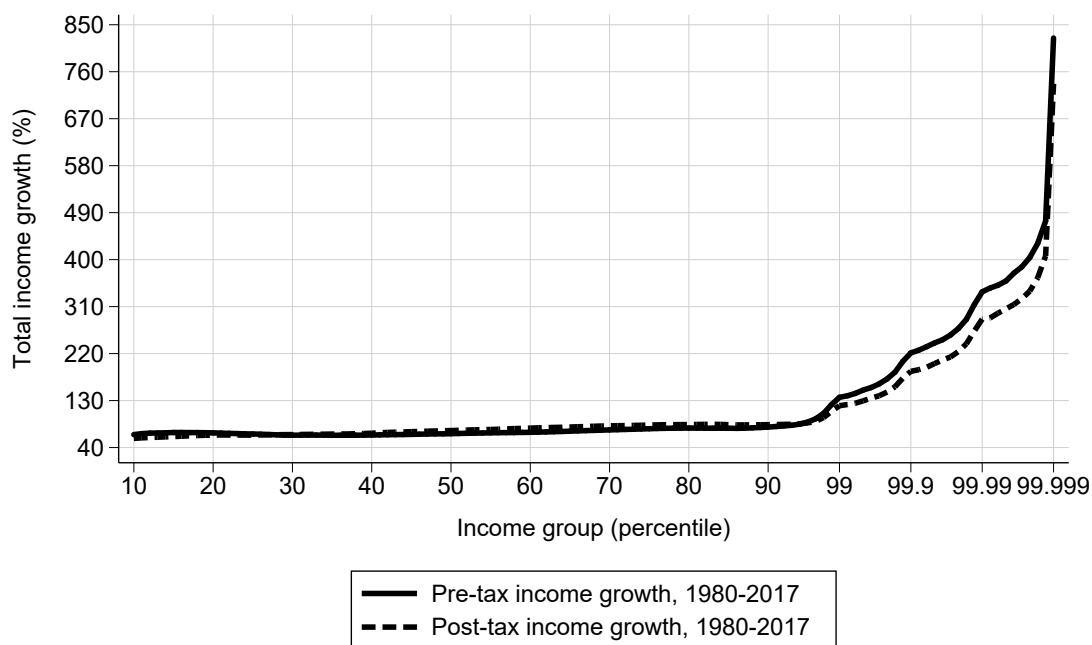(a) Bottom 50% and top 10% income shares

(b) Growth incidence curve

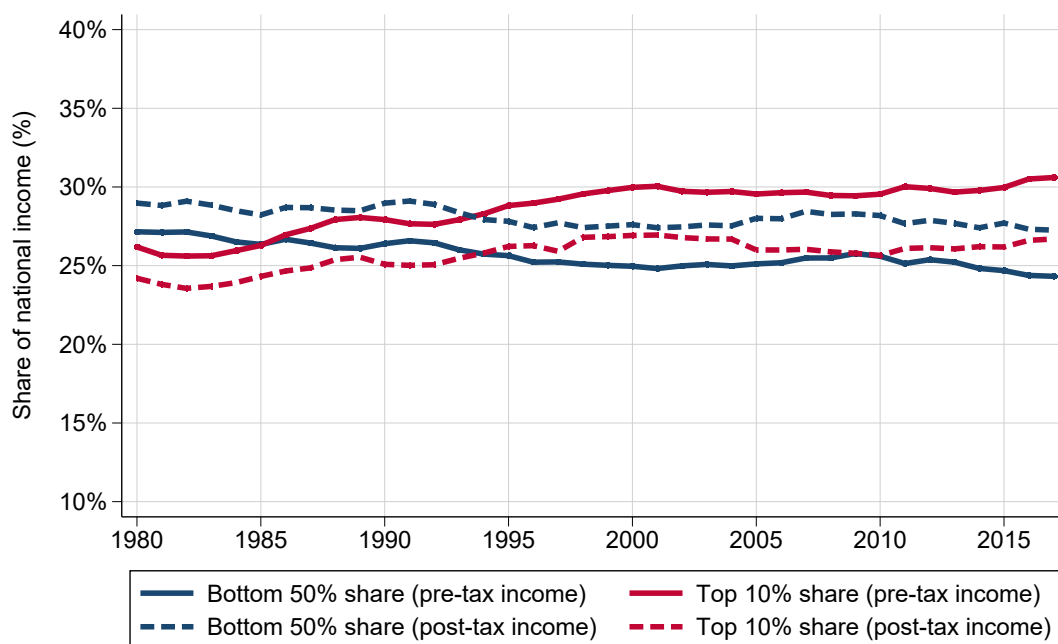Table E.48: Income inequality and growth in Northern Europe

	Average annual income growth (%)				
	1980-2017	1980-1990	1990-2000	2000-2007	2007-2017
Pre-tax income					
Bottom 50 %	1.4 %	1.9 %	1.8 %	2.3 %	-0.1 %
Middle 40 %	1.6 %	1.5 %	1.8 %	2.6 %	0.6 %
Top 10 %	2.0 %	1.1 %	4.6 %	2.4 %	0.2 %
incl. Top 1 %	2.7 %	1.2 %	7.5 %	2.4 %	-0.4 %
incl. Top 0.1 %	3.1 %	1.7 %	10.0 %	1.7 %	-1.1 %
incl. Top 0.01 %	3.4 %	2.3 %	12.7 %	0.1 %	-1.9 %
incl. Top 0.001 %	3.7 %	3.0 %	15.5 %	-1.8 %	-2.7 %
Full population	1.6 %	1.5 %	2.5 %	2.5 %	0.3 %
Post-tax income					
Bottom 50 %	1.4 %	1.8 %	1.9 %	2.2 %	-0.0 %
Middle 40 %	1.6 %	1.6 %	1.8 %	2.8 %	0.6 %
Top 10 %	2.0 %	1.2 %	4.5 %	2.2 %	0.1 %
incl. Top 1 %	2.6 %	1.5 %	7.9 %	1.5 %	-0.4 %
incl. Top 0.1 %	3.3 %	2.4 %	11.5 %	-0.3 %	-1.1 %
incl. Top 0.01 %	3.8 %	3.5 %	15.6 %	-3.0 %	-1.8 %
incl. Top 0.001 %	4.3 %	4.7 %	20.0 %	-6.2 %	-2.7 %
Full population	1.6 %	1.5 %	2.5 %	2.5 %	0.3 %

	Share of growth captured (%)				
	1980-2017	1980-1990	1990-2000	2000-2007	2007-2017
Pre-tax income					
Bottom 50 %	23.3 %	36.0 %	20.3 %	25.0 %	-7.6 %
Middle 40 %	43.6 %	46.7 %	32.0 %	46.5 %	91.2 %
Top 10 %	33.0 %	17.3 %	47.6 %	28.4 %	16.4 %
incl. Top 1 %	11.2 %	4.4 %	20.4 %	8.5 %	-10.3 %
incl. Top 0.1 %	3.8 %	1.7 %	8.5 %	2.0 %	-10.1 %
incl. Top 0.01 %	1.3 %	0.7 %	3.7 %	0.0 %	-5.9 %
incl. Top 0.001 %	0.4 %	0.3 %	1.7 %	-0.3 %	-2.9 %
Full population	100.0 %	100.0 %	100.0 %	100.0 %	100.0 %
Post-tax income					
Bottom 50 %	25.1 %	35.5 %	23.2 %	26.4 %	-2.9 %
Middle 40 %	45.2 %	46.9 %	33.0 %	49.5 %	93.5 %
Top 10 %	29.7 %	17.7 %	43.9 %	24.1 %	9.4 %
incl. Top 1 %	10.1 %	4.9 %	20.4 %	4.9 %	-10.5 %
incl. Top 0.1 %	3.7 %	2.2 %	10.2 %	-0.4 %	-9.8 %
incl. Top 0.01 %	1.4 %	1.0 %	5.4 %	-1.6 %	-6.1 %
incl. Top 0.001 %	0.5 %	0.4 %	2.9 %	-1.5 %	-3.3 %
Full population	100.0 %	100.0 %	100.0 %	100.0 %	100.0 %

Source: authors' computations.

E.6   Southern Europe

Figure E.91: Income inequality in Southern Europe: main results

(a) Bottom 50% and top 10% income shares
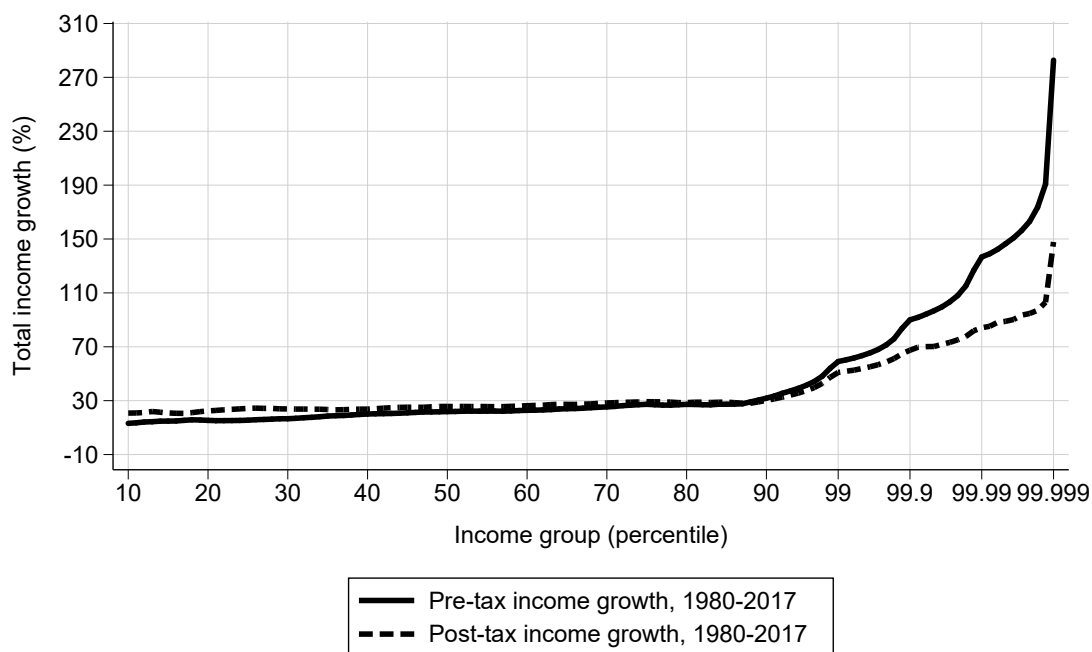

(b) Growth incidence curve

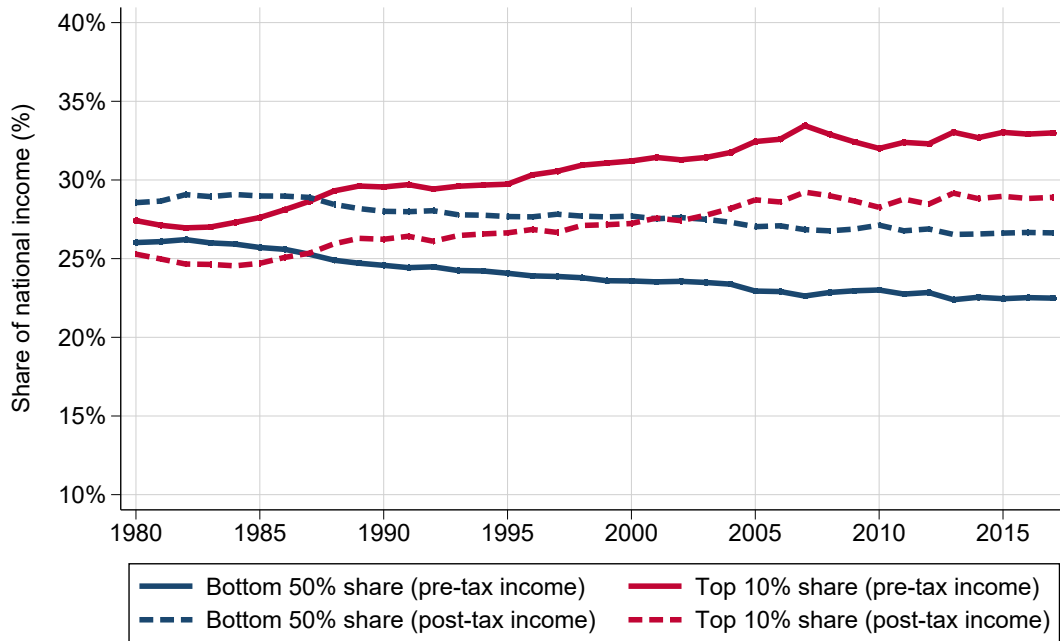Table E.49: Income inequality and growth in Southern Europe

	Average annual income growth (%)				
	1980-2017	1980-1990	1990-2000	2000-2007	2007-2017
Pre-tax income					
Bottom 50 %	0.4 %	1.2 %	0.9 %	0.8 %	-1.2 %
Middle 40 %	0.6 %	1.2 %	1.0 %	0.9 %	-0.6 %
Top 10 %	1.1 %	2.4 %	1.8 %	0.8 %	-0.5 %
incl. Top 1 %	1.5 %	2.7 %	2.7 %	0.8 %	-0.3 %
incl. Top 0.1 %	1.8 %	2.4 %	3.6 %	0.8 %	0.2 %
incl. Top 0.01 %	2.2 %	1.9 %	4.5 %	0.9 %	1.0 %
incl. Top 0.001 %	2.5 %	1.5 %	5.2 %	0.9 %	2.0 %
Full population	0.7 %	1.5 %	1.2 %	0.9 %	-0.7 %
Post-tax income					
Bottom 50 %	0.5 %	1.4 %	0.9 %	0.9 %	-1.0 %
Middle 40 %	0.6 %	1.2 %	1.2 %	0.7 %	-0.5 %
Top 10 %	1.0 %	2.2 %	1.7 %	1.1 %	-0.7 %
incl. Top 1 %	1.4 %	2.6 %	2.0 %	2.3 %	-0.8 %
incl. Top 0.1 %	1.7 %	2.3 %	2.0 %	4.3 %	-0.8 %
incl. Top 0.01 %	2.0 %	1.8 %	1.7 %	7.2 %	-0.9 %
incl. Top 0.001 %	2.3 %	1.2 %	1.0 %	10.7 %	-1.0 %
Full population	0.7 %	1.5 %	1.2 %	0.9 %	-0.7 %

	Share of growth captured (%)				
	1980-2017	1980-1990	1990-2000	2000-2007	2007-2017
Pre-tax income					
Bottom 50 %	13.8 %	20.0 %	18.7 %	23.2 %	40.0 %
Middle 40 %	39.4 %	36.7 %	37.5 %	46.6 %	38.0 %
Top 10 %	46.8 %	43.3 %	43.8 %	30.2 %	22.0 %
incl. Top 1 %	17.0 %	12.9 %	17.8 %	8.3 %	4.0 %
incl. Top 0.1 %	6.0 %	3.1 %	6.7 %	2.5 %	-0.7 %
incl. Top 0.01 %	2.2 %	0.7 %	2.4 %	0.8 %	-1.1 %
incl. Top 0.001 %	0.8 %	0.2 %	0.8 %	0.3 %	-0.7 %
Full population	100.0 %	100.0 %	100.0 %	100.0 %	100.0 %
Post-tax income					
Bottom 50 %	19.5 %	26.0 %	19.0 %	27.0 %	35.8 %
Middle 40 %	41.2 %	37.3 %	43.3 %	37.1 %	34.4 %
Top 10 %	39.2 %	36.8 %	37.7 %	35.9 %	29.8 %
incl. Top 1 %	13.6 %	10.5 %	11.0 %	19.5 %	9.1 %
incl. Top 0.1 %	4.5 %	2.4 %	2.8 %	10.0 %	2.7 %
incl. Top 0.01 %	1.5 %	0.5 %	0.6 %	4.6 %	0.9 %
incl. Top 0.001 %	0.5 %	0.1 %	0.1 %	2.0 %	0.3 %
Full population	100.0 %	100.0 %	100.0 %	100.0 %	100.0 %

Source: authors' computations.

E.7   Western Europe

Figure E.93: Income inequality in Western Europe: main results

(a) Bottom 50% and top 10% income shares
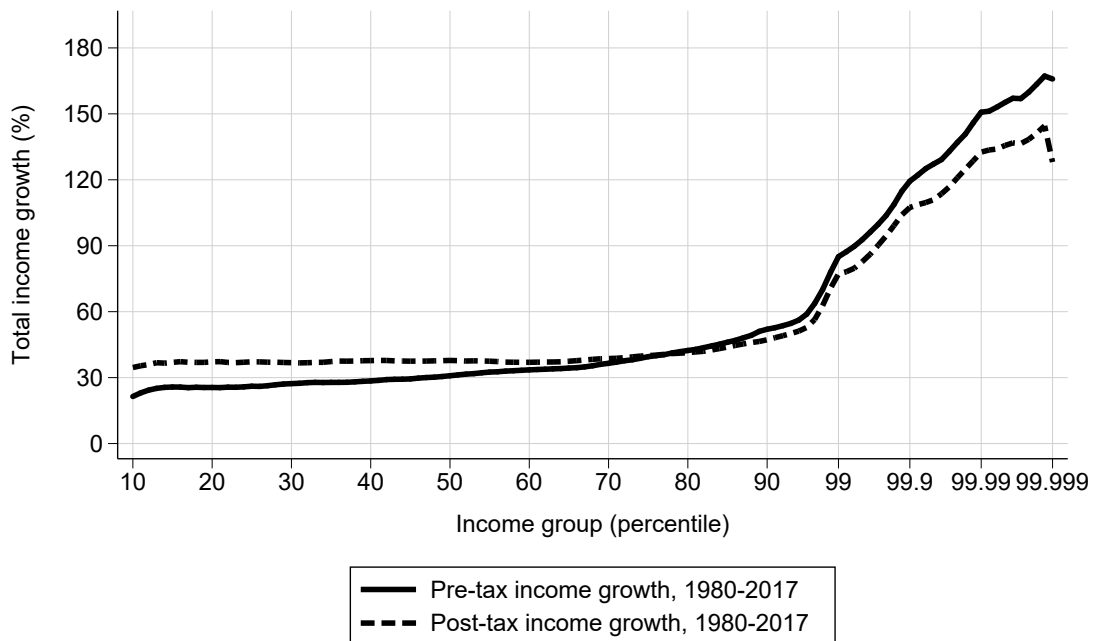

(b) Growth incidence curve

Table E.50: Income inequality and growth in Western Europe

	Average annual income growth (%)				
	1980-2017	1980-1990	1990-2000	2000-2007	2007-2017
Pre-tax income					
Bottom 50 %	0.7 %	0.8 %	1.0 %	0.6 %	0.2 %
Middle 40 %	0.9 %	1.2 %	1.2 %	0.9 %	0.2 %
Top 10 %	1.5 %	2.2 %	2.1 %	2.1 %	-0.2 %
incl. Top 1 %	2.1 %	3.2 %	3.0 %	2.9 %	-0.6 %
incl. Top 0.1 %	2.4 %	4.4 %	3.3 %	3.5 %	-1.2 %
incl. Top 0.01 %	2.6 %	5.4 %	3.2 %	4.2 %	-1.9 %
incl. Top 0.001 %	2.6 %	5.8 %	3.0 %	5.3 %	-2.9 %
Full population	1.0 %	1.4 %	1.4 %	1.2 %	0.1 %
Post-tax income					
Bottom 50 %	0.8 %	1.0 %	1.2 %	0.5 %	0.3 %
Middle 40 %	0.9 %	1.3 %	1.3 %	0.8 %	0.3 %
Top 10 %	1.4 %	1.9 %	2.0 %	2.5 %	-0.4 %
incl. Top 1 %	2.0 %	2.5 %	2.7 %	4.5 %	-1.0 %
incl. Top 0.1 %	2.4 %	3.1 %	3.5 %	6.1 %	-1.8 %
incl. Top 0.01 %	2.8 %	3.8 %	4.4 %	7.0 %	-2.6 %
incl. Top 0.001 %	2.8 %	3.8 %	5.7 %	7.4 %	-3.9 %
Full population	1.0 %	1.4 %	1.4 %	1.2 %	0.1 %
	Share of growth captured (%)				
	1980-2017	1980-1990	1990-2000	2000-2007	2007-2017
Pre-tax income					
Bottom 50 %	16.6 %	15.1 %	17.8 %	12.0 %	52.4 %
Middle 40 %	38.6 %	38.6 %	37.3 %	32.2 %	100.0 %
Top 10 %	44.8 %	46.3 %	44.9 %	55.8 %	-52.5 %
incl. Top 1 %	17.6 %	17.9 %	18.9 %	25.1 %	-55.1 %
incl. Top 0.1 %	6.7 %	7.9 %	7.3 %	10.8 %	-41.4 %
incl. Top 0.01 %	2.5 %	3.4 %	2.6 %	4.8 %	-24.5 %
incl. Top 0.001 %	0.9 %	1.4 %	0.9 %	2.3 %	-14.2 %
Full population	100.0 %	100.0 %	100.0 %	100.0 %	100.0 %
Post-tax income					
Bottom 50 %	21.2 %	20.3 %	23.2 %	11.5 %	77.3 %
Middle 40 %	40.4 %	42.4 %	39.4 %	28.4 %	122.1 %
Top 10 %	38.4 %	37.3 %	37.4 %	60.1 %	-99.3 %
incl. Top 1 %	14.8 %	12.0 %	14.2 %	33.3 %	-87.0 %
incl. Top 0.1 %	5.7 %	4.5 %	5.7 %	15.4 %	-54.4 %
incl. Top 0.01 %	2.1 %	1.7 %	2.5 %	6.5 %	-29.8 %
incl. Top 0.001 %	0.7 %	0.6 %	1.2 %	2.7 %	-16.5 %
Full population	100.0 %	100.0 %	100.0 %	100.0 %	100.0 %

Source: authors' computations.

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