

PATHWAYS TO THE MIDDLE CLASS: HOW HAVE REDUCING POVERTY AND BOOSTING SHARED PROSPERITY HELPED?

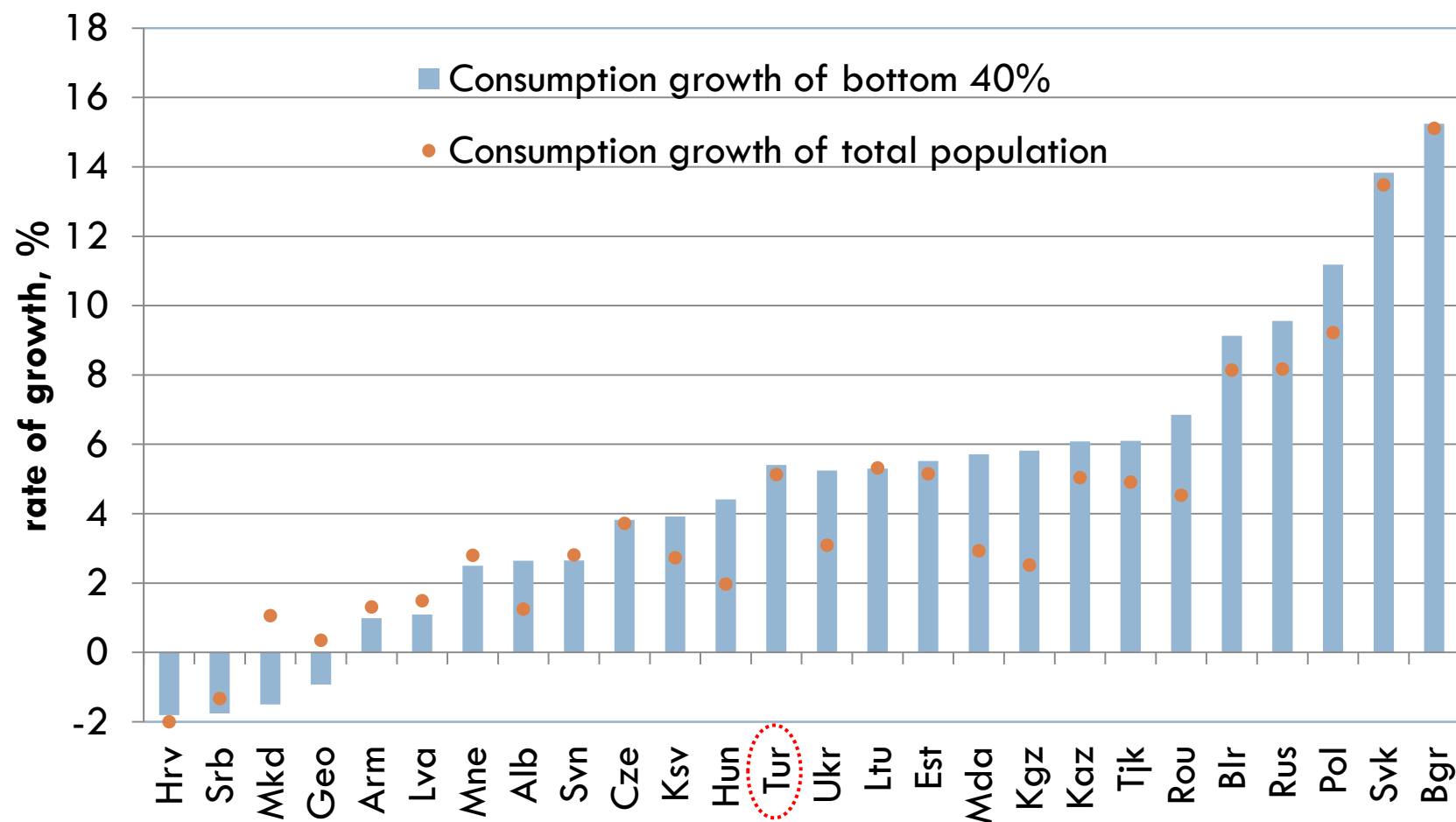
Joao Pedro Azevedo
Senior Economist
The World Bank

PPP Disclaimer

All PPP figures used in this Presentation are based in the 2008 ICP round. All Poverty rates based on the dollar-per-day measures are also based on the PPP conversions factors from the 2008 ICP round. As ICP estimates are revised, they are of five data sources that are used to compute the incidence of poverty using the “dollar a day” poverty line methodology. The use of the 2011 PPPs in the calculation of global or regional poverty estimates requires additional analysis. One issue that warrants consideration is that people who live at or below the poverty line likely have different patterns of consumption than the total population (which is the basis for the PPPs). The representation of price data in rural areas (where many of the poor live), from local markets (where the poor shop) and of poorer quality goods also warrants closer examination. DEC economists engaged in the global poverty calculations will obtain detailed data and metadata from the ICP *Global Office*, regional coordinating agencies, and participating economies in order to assess whether the new PPP estimates can be used for poverty measurement purposes, or whether adjustments will be needed. These data will take some time to acquire and assess and so DEC will not incorporate the new PPPs into the poverty measure calculations immediately. This is consistent with past practice: when the 2005 PPPs were released in 2007, DEC analyzed the PPPs in detail and made additional adjustments before incorporating them into the poverty measures two years later.”

Between 2006-2011, the bottom 40 percent benefited equally from economic growth with the total population

3

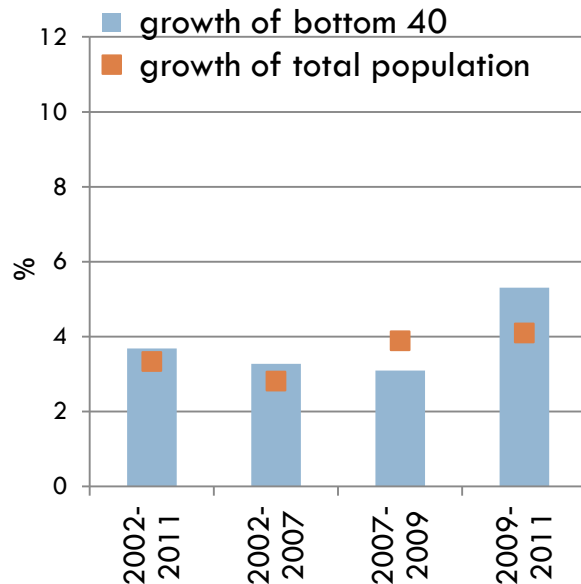


Source: ECATSD's preliminary calculations based on ECAPOV data. Welfare aggregate is consumption plus durables, rent and health. For Turkey consumption aggregate includes rent. Geometric mean is used to calculate average growth rate.

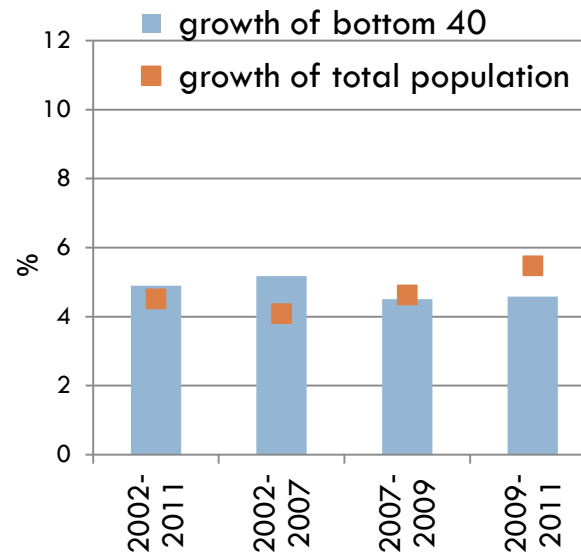
The shared prosperity story seem to be robust across definitions of welfare, although the scale differs (and the relationship with the mean)

4

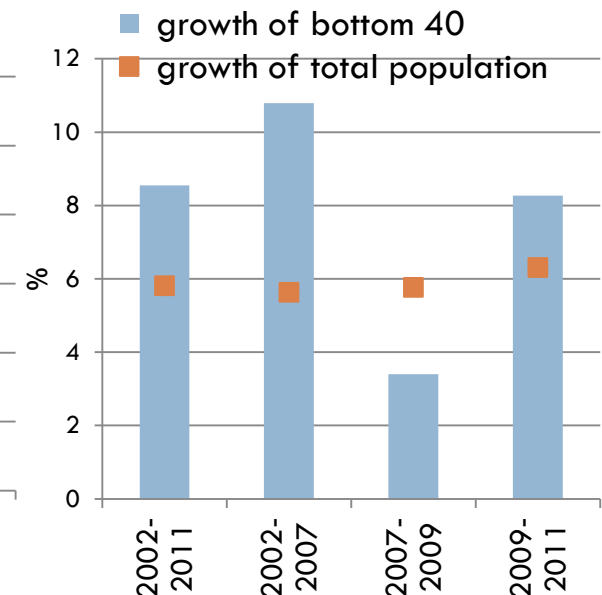
Consumption



Consumption + health, durables and rent



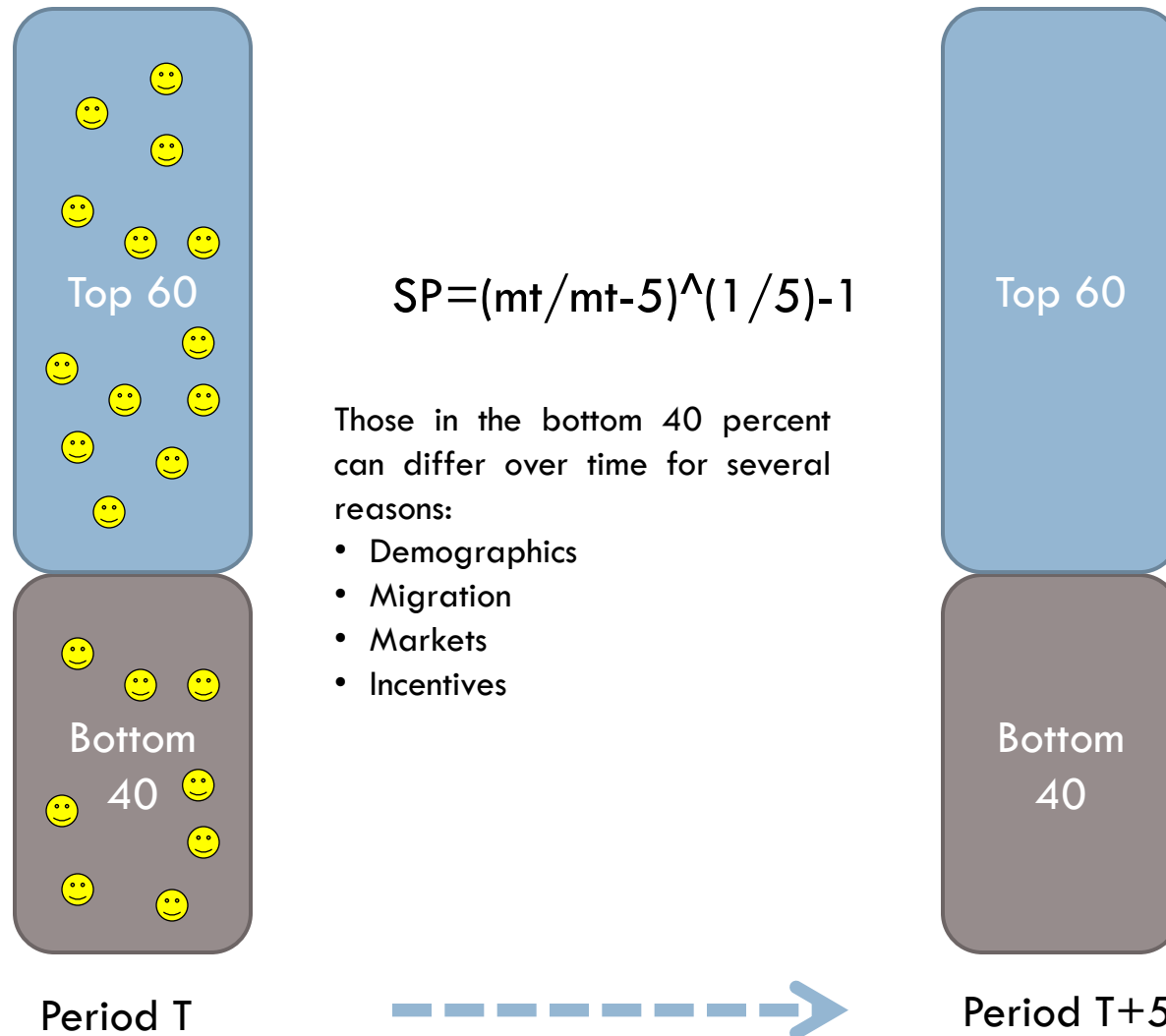
income



- Overall, during 2002-2011 the economic growth was **widely shared**
- During 2007-2009 (crisis) consumption of the bottom 40 was **lower** than the overall growth

The anonymity of the growth of the bottom 40 percent matters, but this not a democratic indicator.

5



And from a policy and operationalization point of view,
it is important to think about the magnitude of this
churning

6

a) Upper bound

	2011		
2002	Top 60	Bottom 40	Total
Top 60	43	17	60
Bottom 40	17	23	40
Total	60	40	100

b) Lower bound

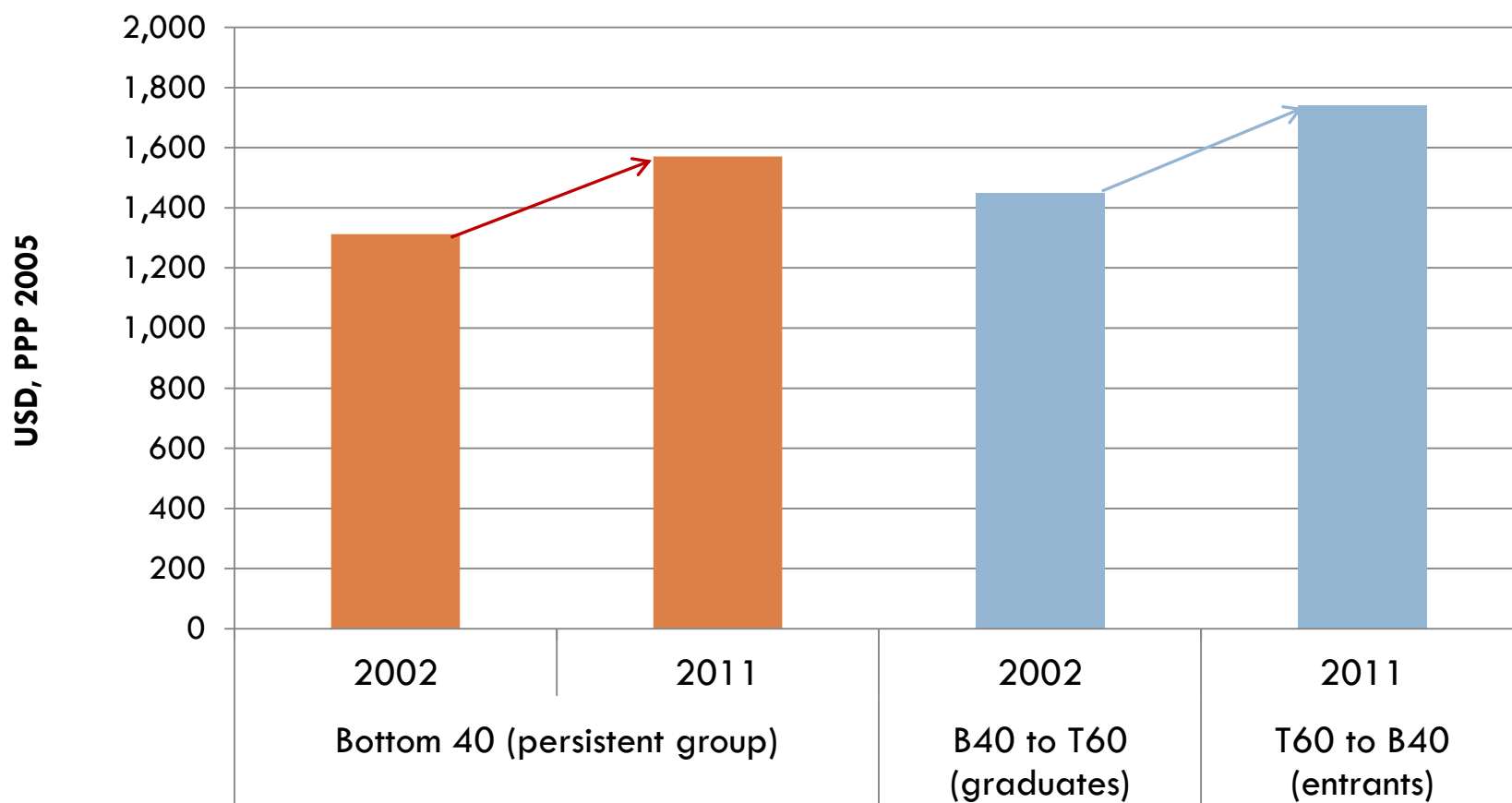
	2011		
2002	Top 60	Bottom 40	Total
Top 60	54	6	60
Bottom 40	6	34	40
Total	60	40	100

Source: Authors' calculations based on ECAPOV data.

Notes: Transition matrix is based on a synthetic panel for 2002-2011. Welfare aggregate is consumption per capita including health and durables. Sample: heads of household 25-55 years of age.

Average consumption per capita in different groups in the bottom 40 percent of the population, upper bound

7

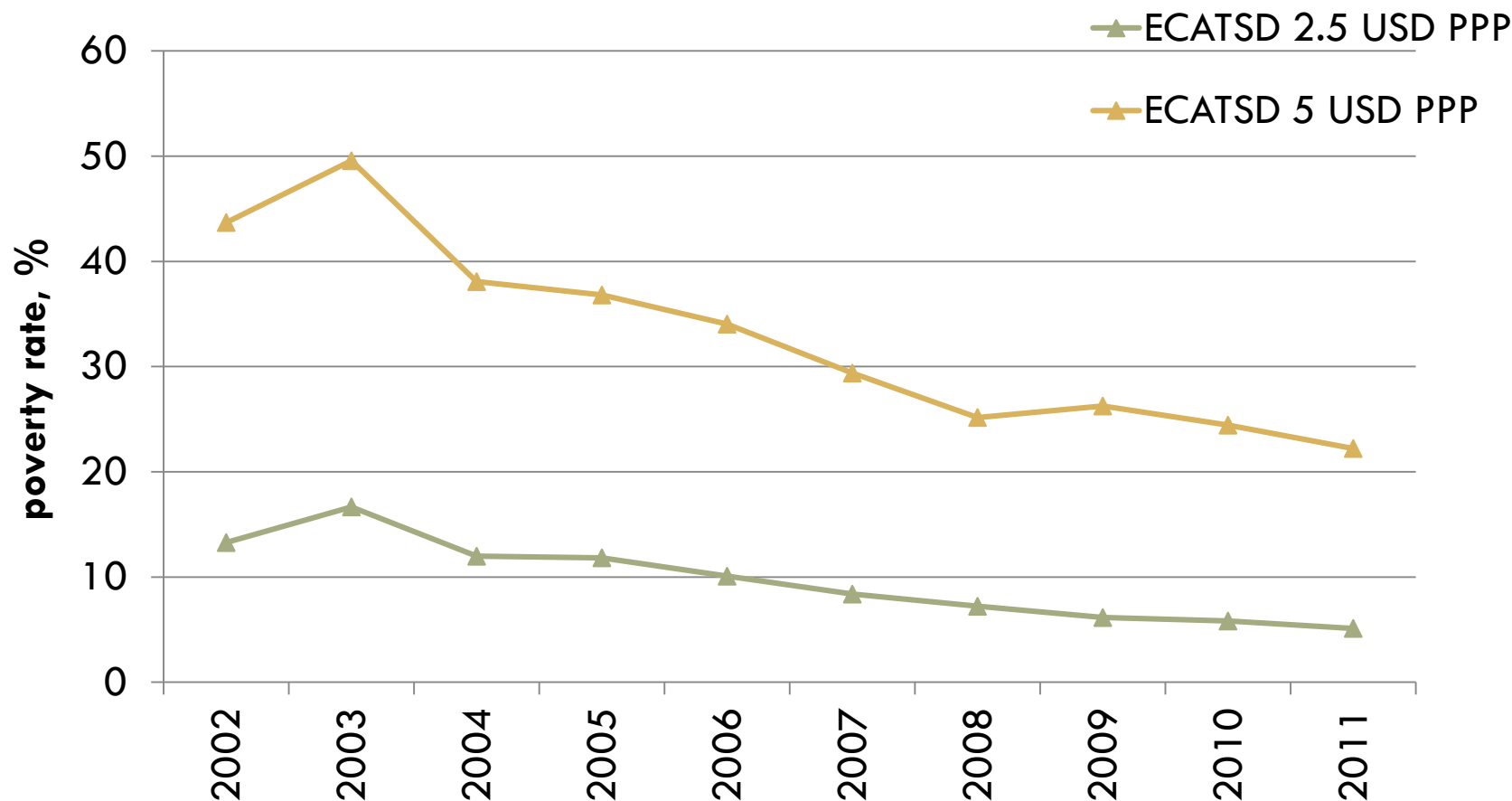


Source: Authors' calculations based on ECAPOV data.

Notes: Transition matrix is based on a synthetic panel for 2002-2011. Welfare aggregate is consumption per capita including health and durables. Sample: heads of household 25-55 years of age.

Nevertheless, steady poverty reduction in spite of sharp volatility in the economy. Poverty reduction in Turkey was almost at 80th percentile of world performance in 2007-2008.

8

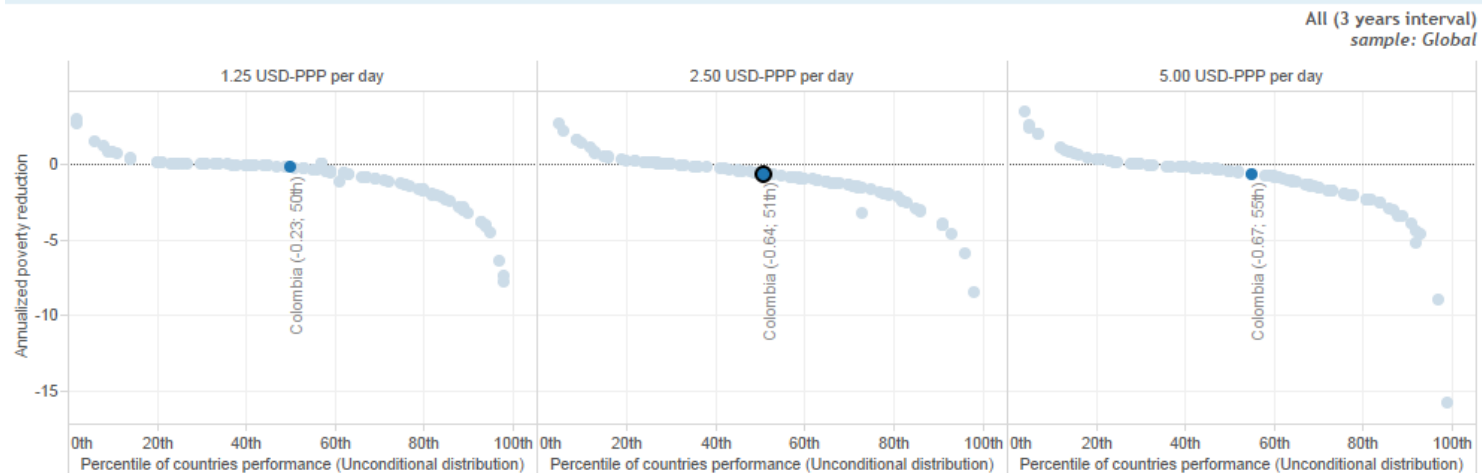


Source: National Statistical Committee and ECATSD's calculations based on ECAPOV.

Notes: Welfare aggregate from ECAPOV is consumption per capita (+health, +durables, + rent)

Good performance in poverty reduction between 2008-2011

9

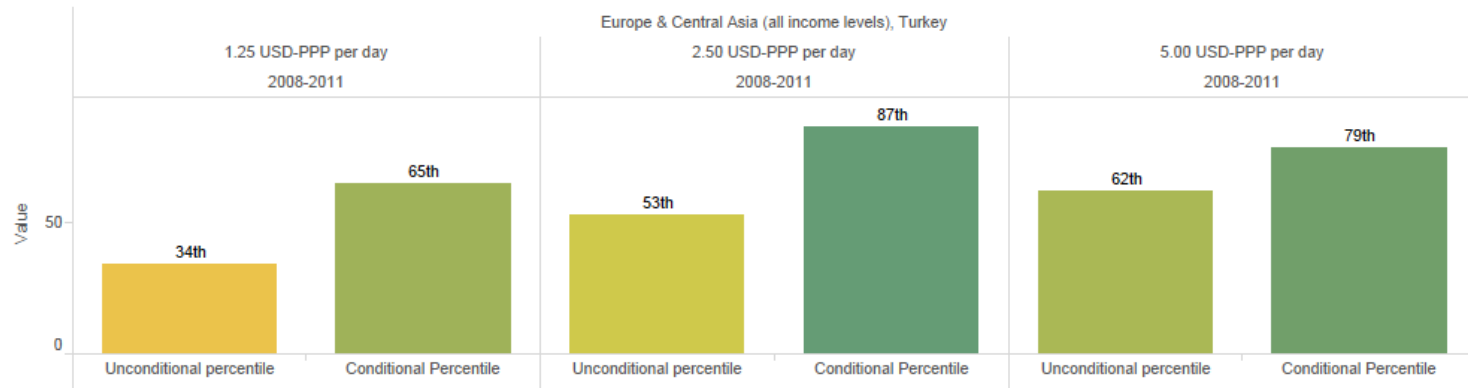


Benchmarking: Turkey

Betas: Global; Poverty line: All; Model ; 3 years(s) interval

Betas:

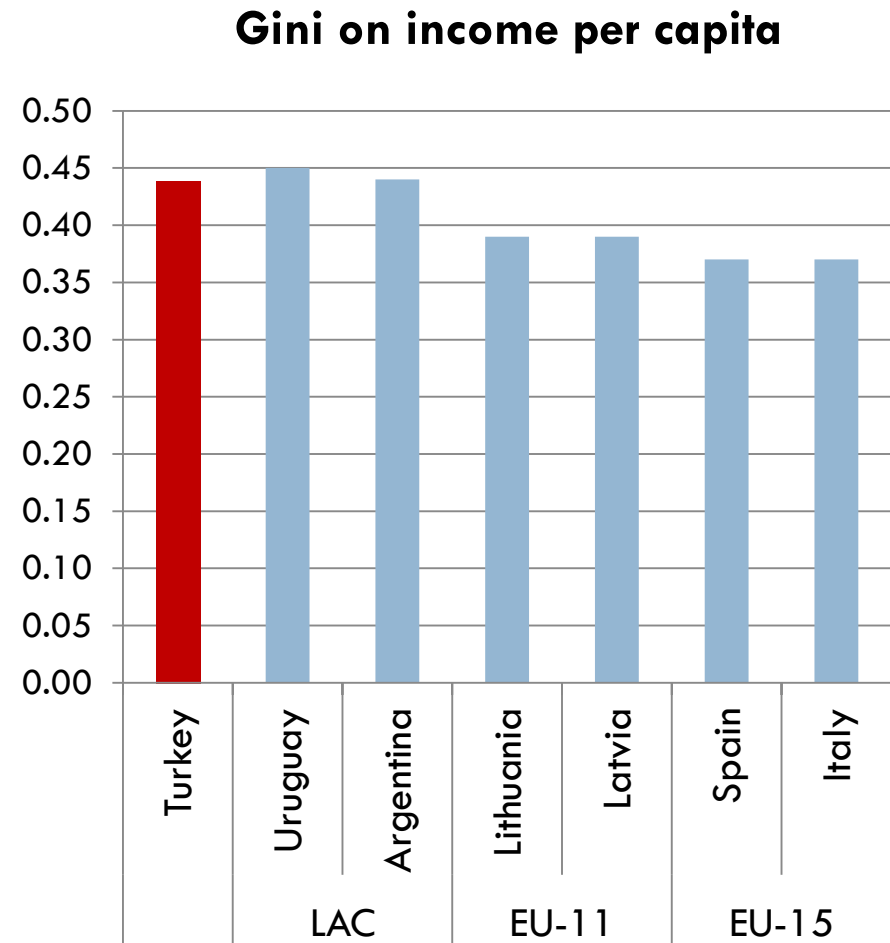
Global



However, inequality still higher than in EU countries

10

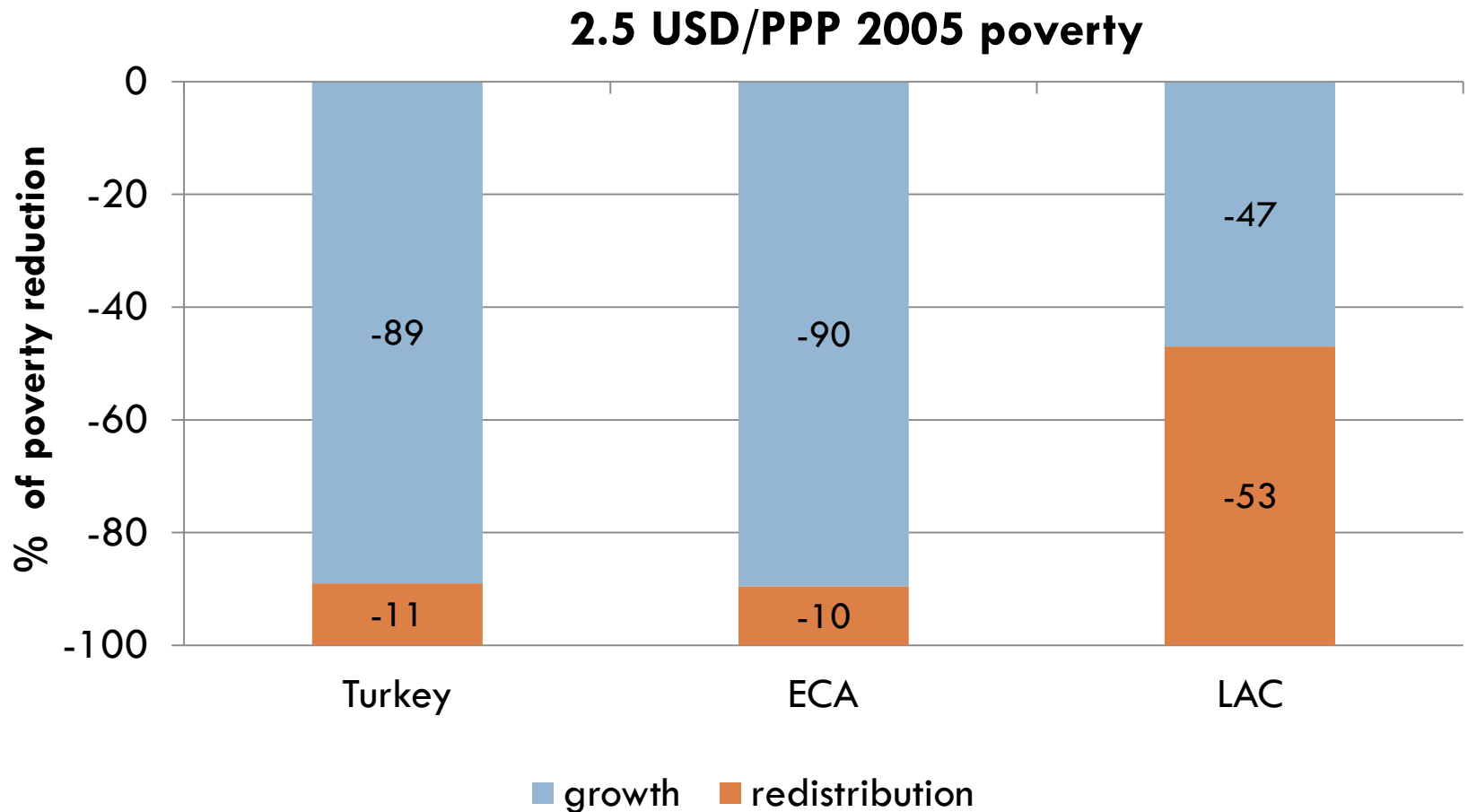
- Inequality in Turkey is lower than in the **least unequal** LAC countries
- Inequality in Turkey is higher than in the **least equal** EU countries



Source: ECATSD's calculations for ECA countries. For LAC countries the source is Azevedo, Davalos, Diaz-Bonita, Atuesta, Castaneda (2013). For EU and Turkey the source is EU-SILC.

Most of poverty reduction in Turkey, as in other ECA countries, comes from growth, rather than redistribution

11

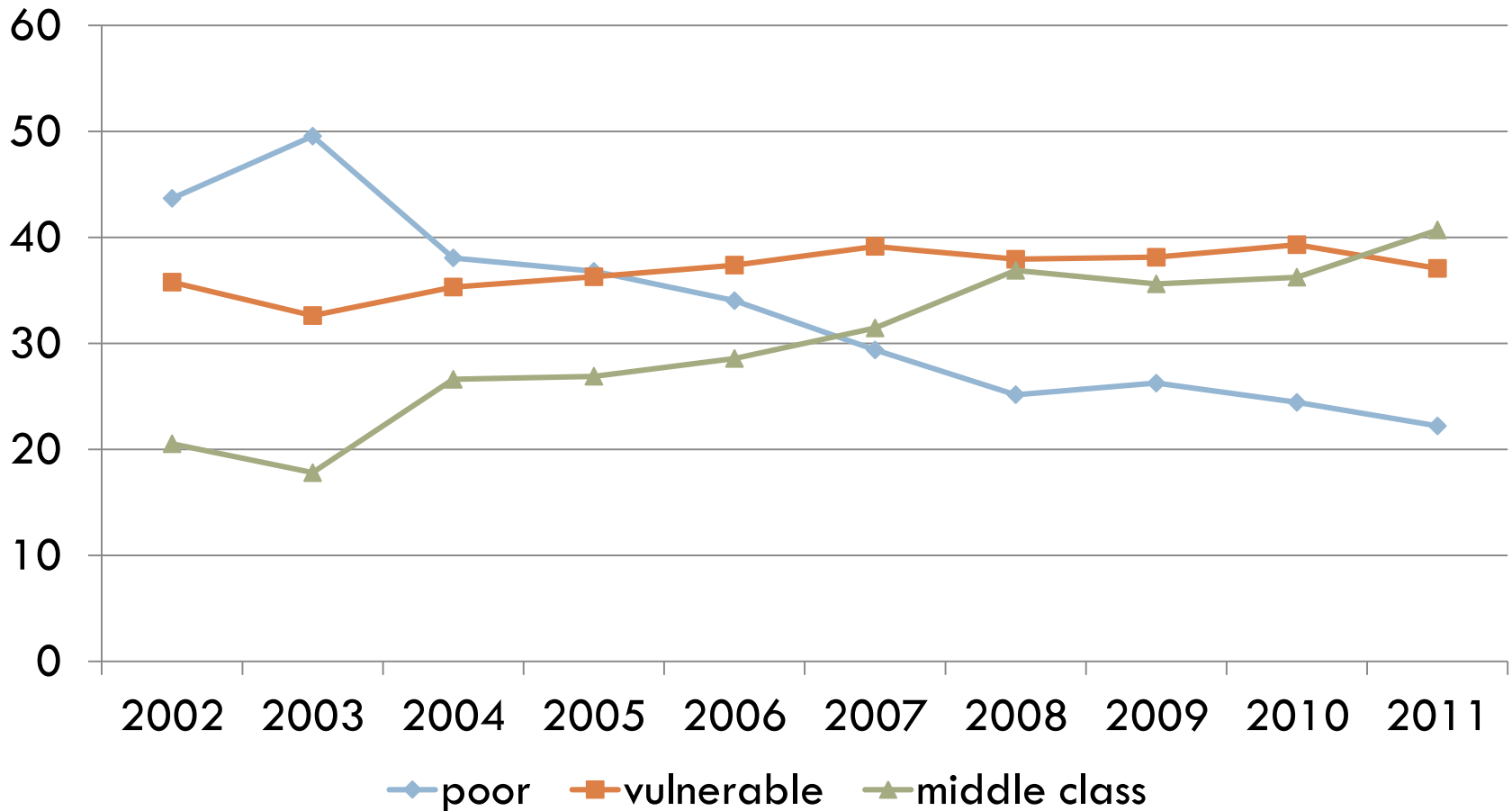


Source: ECATSD's calculations based on ECAPOV and Azevedo et al. (2013).

Notes: Welfare aggregate is consumption per capita.

Poverty reduction has been accompanied by a growing middle class

12



Source: ECATSD's calculations based on ECAPOV.

Notes: thresholds for welfare aggregate: below 5USD/PPP poor, between 5 and 10 USD/PPP vulnerable and middle class with consumption above 10 USD/PPP. Welfare aggregate is consumption per capita plus health, durables and rent.

The middle class in Turkey is the most stable group, and increased mostly from vulnerable households

13

Class transitions in Turkey from 2002 to 2011

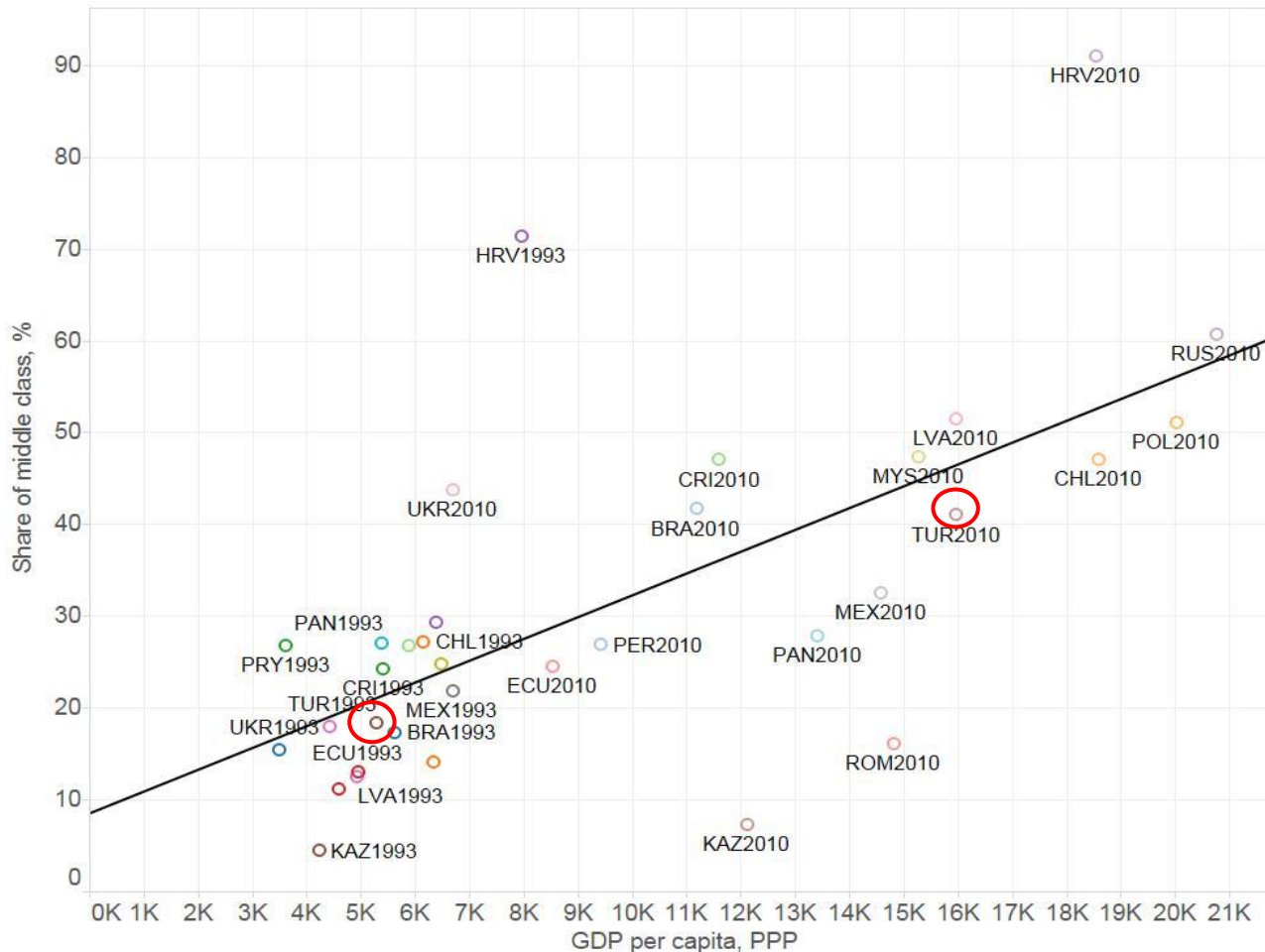
	Origin (In 2002)	Percentage moving to 2011			
		Poor	Vulnerable	Middle Class	
Poor	43	58	41	0	100
Vulnerable	37	1	58	40	100
Middle class	20	0	2	98	100
Total	100	22	38	40	100

Source: authors' calculations based on ECAPOV data .

Notes: transition matrix is based on synthetic panel for 2002-2011. Welfare aggregate is consumption (+health, +durables) per capita and poverty line is 5 and 10 USD PPP 2005. Rsq for consumption model is 0.36. Explanatory variables include year of birth cohort, number of children, education of the head of household, rural/urban dummy and different interactions between these variables. Sample: head of households 25-55 years of age. Values based on lower bound estimates.

Although Turkey is a middle income country, it has less than 1/3 of its population in middle class.

14

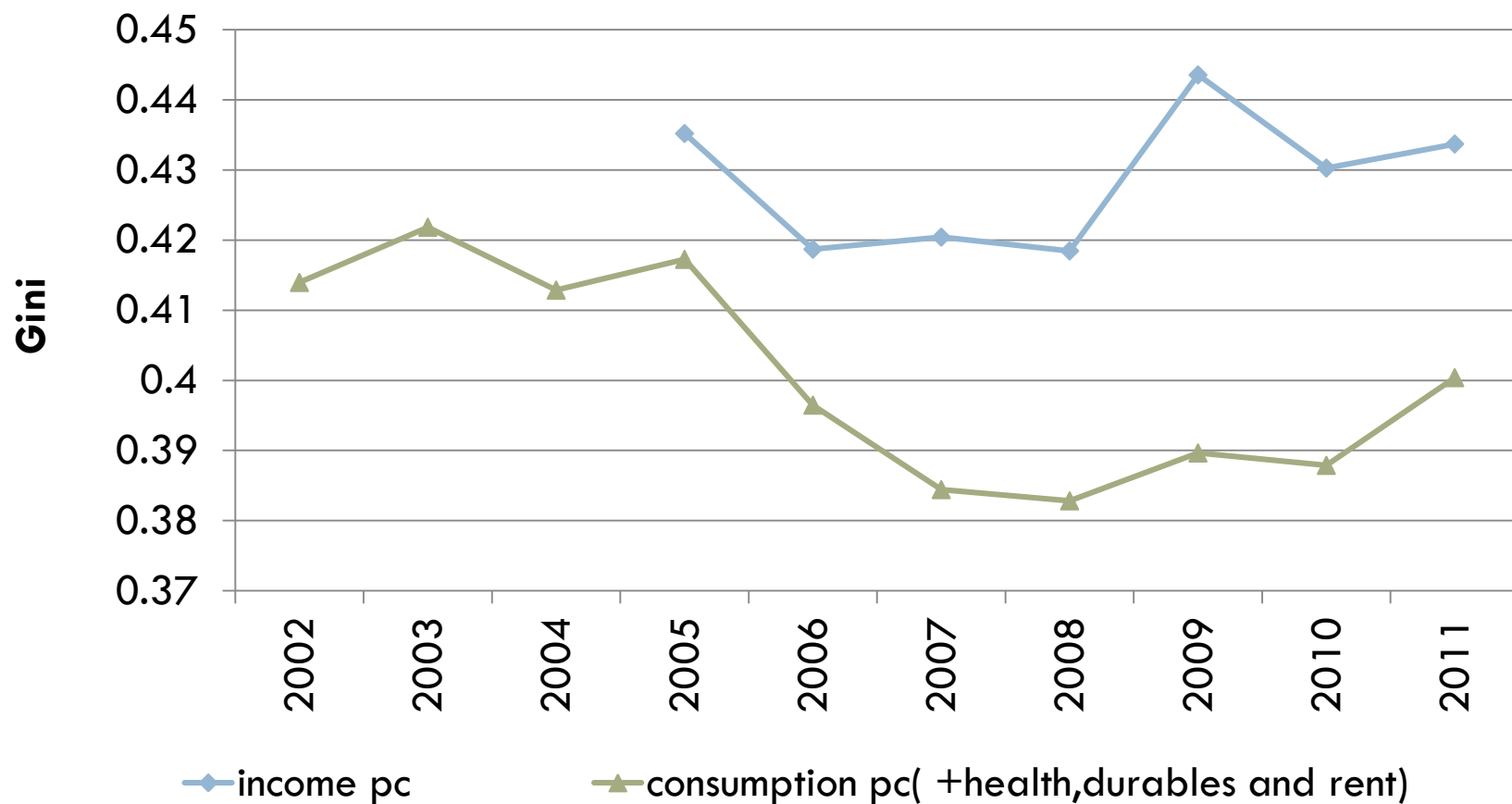


Source: authors' calculations using POVCALNET.

Note: : thresholds for middle class with consumption per capita above 10 USD/PPP. Each country has its own time period for the middle class depending on data availability. Middle class for Turkey in 2010 is based on 2011 data from ECAPOV with welfare aggregate including health, durables and rent.

With rising inequality after the crisis.

15

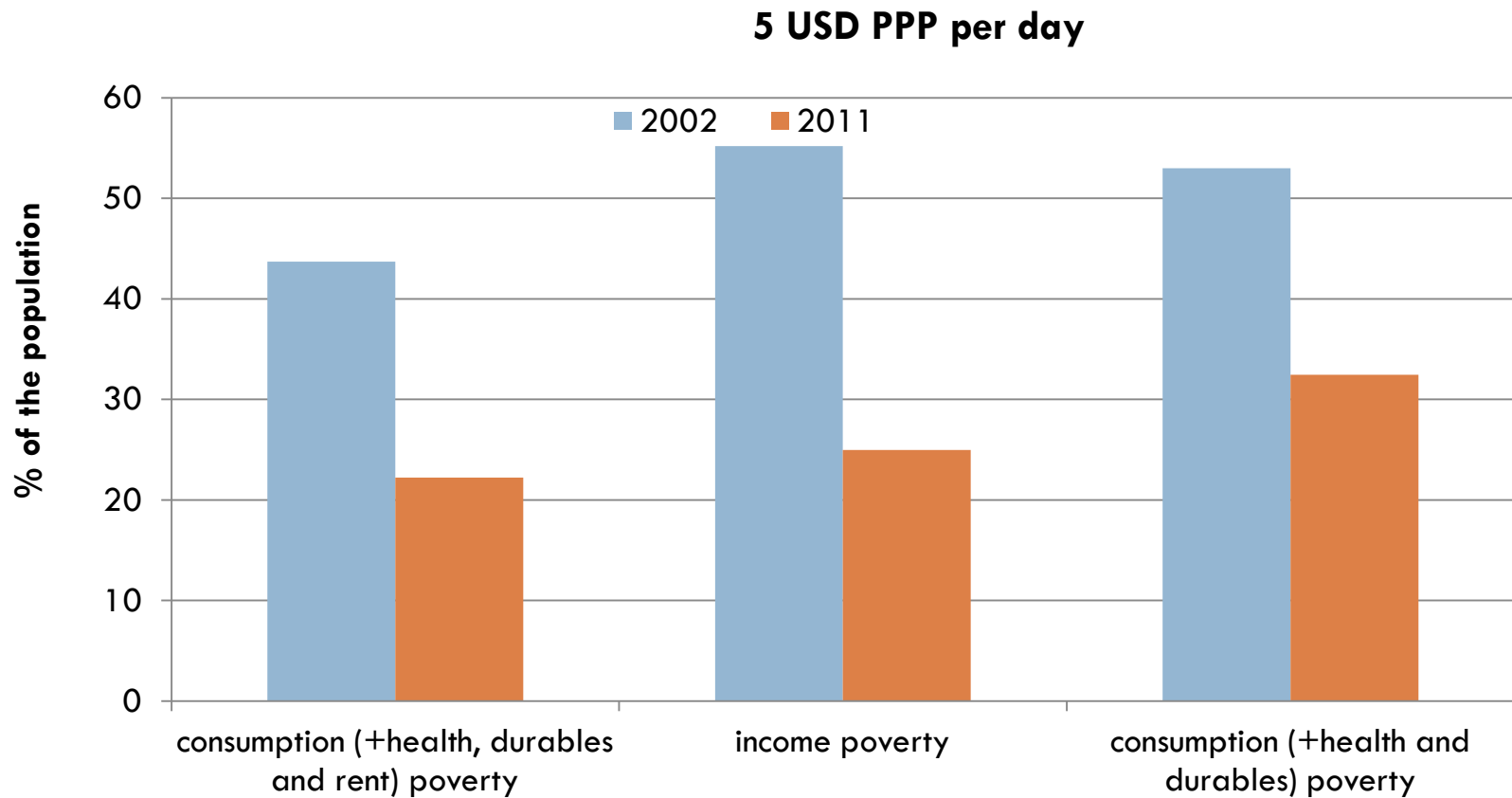


Source: Authors' calculation based on ECAPOV data.

Notes: Welfare aggregate is consumption per capita including health, durables and rent.

Consistent trends between consumption and income poverty

16



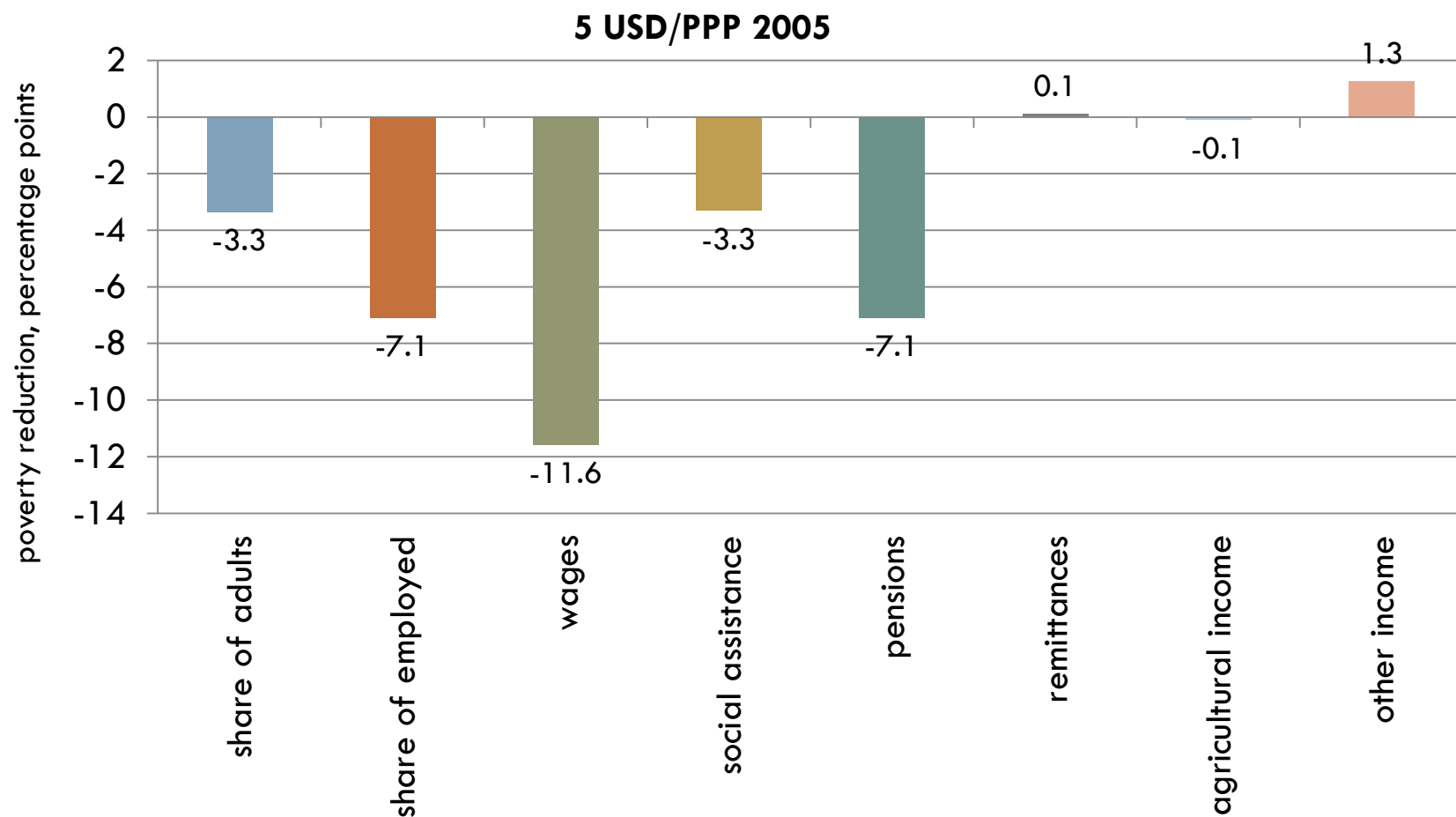


From “what” to “how”

Determinants of poverty reduction, inequality, intra-generational mobility and shared prosperity

Most of poverty reduction in the 2002-2011 has been driven by labor market gains

18

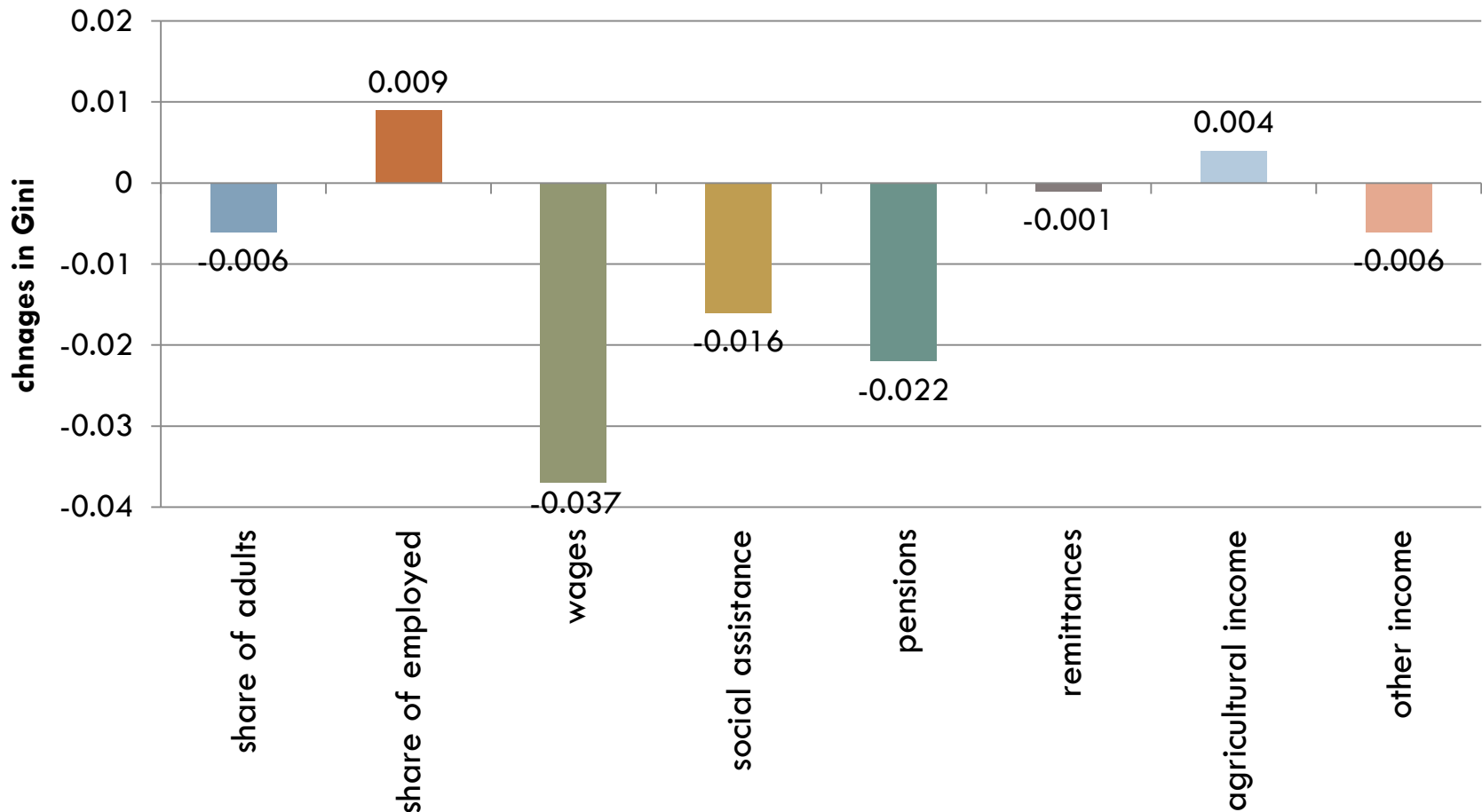


Source: authors' calculations based on ECAPOV.

Notes: Welfare aggregate is income per capita.

Labor earnings were also the most equalizing source of income, 2002-2011

19

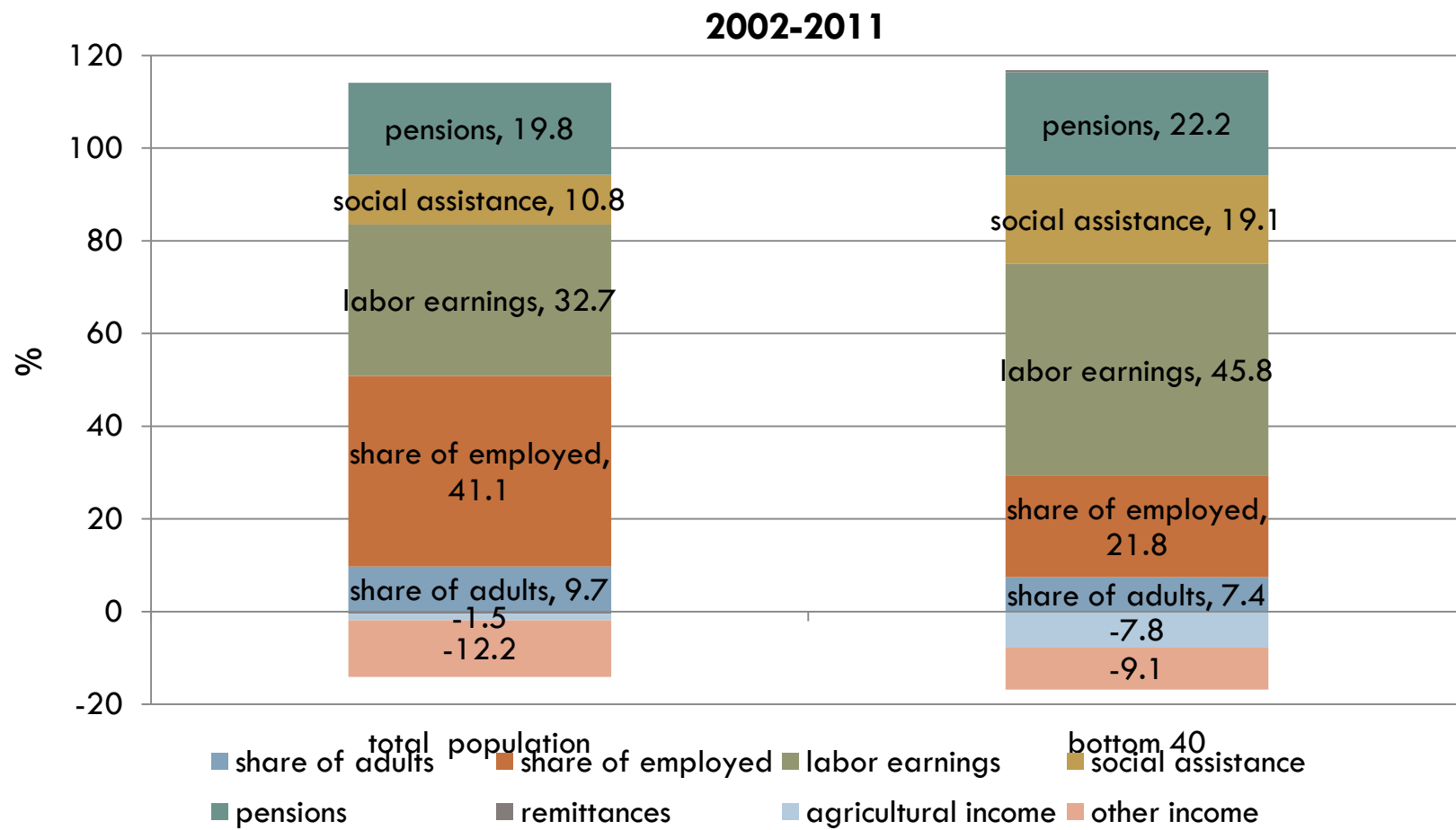


Source: authors' calculations based on ECAPOV.

Notes: Welfare aggregate is income per capita.

Qualitatively similar story for the growth of the bottom 40 percent

20



Source: authors' calculations based on ECAPOV.

Notes: Welfare aggregate is income per capita.

Although there are a few differences by sub periods

21



Source: authors' calculations based on ECAPOV.

Notes: Welfare aggregate is income per capita.

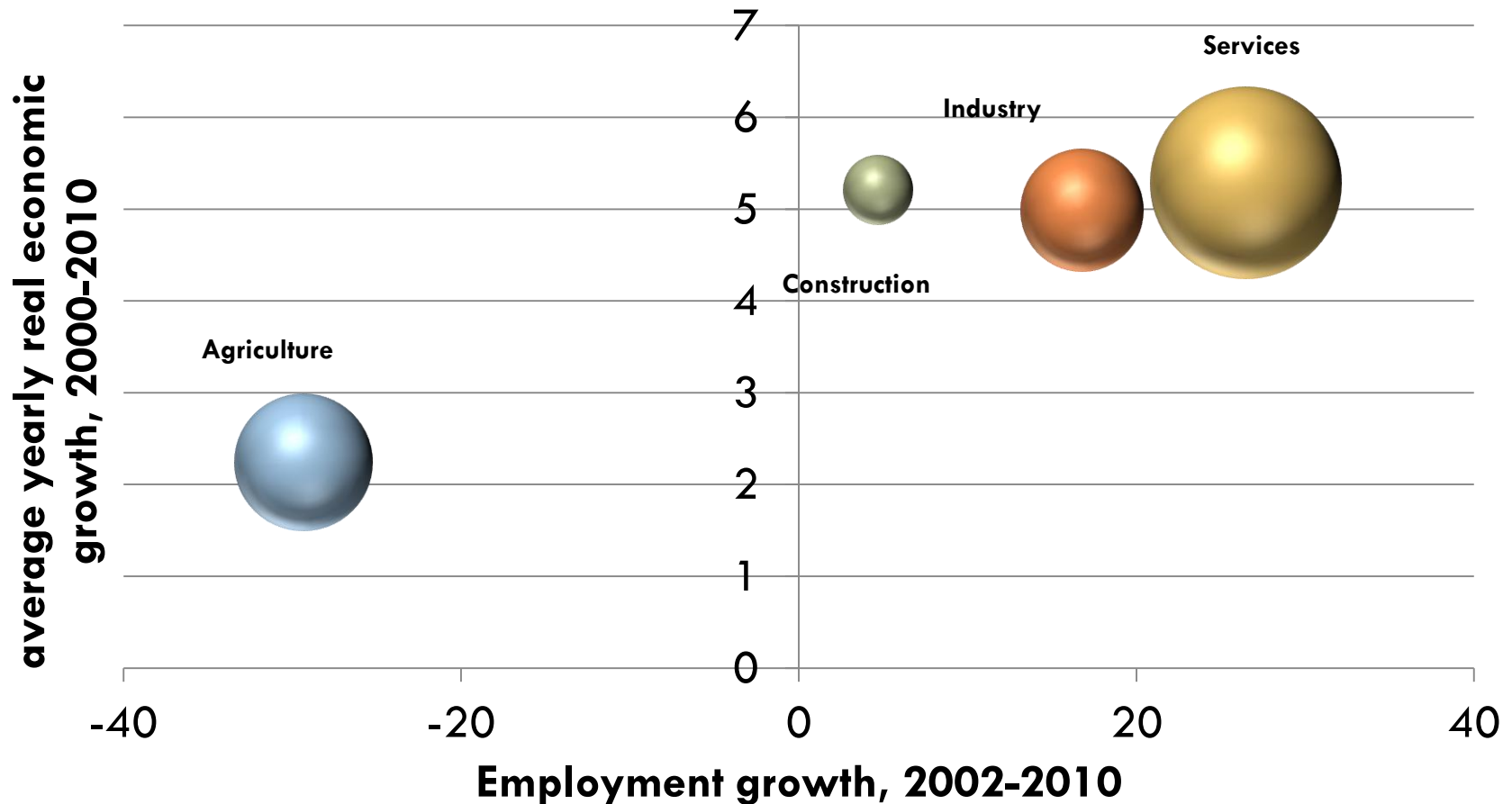


From “how” to “why”

Some drivers of this improvements

Changes in the employment structure

23



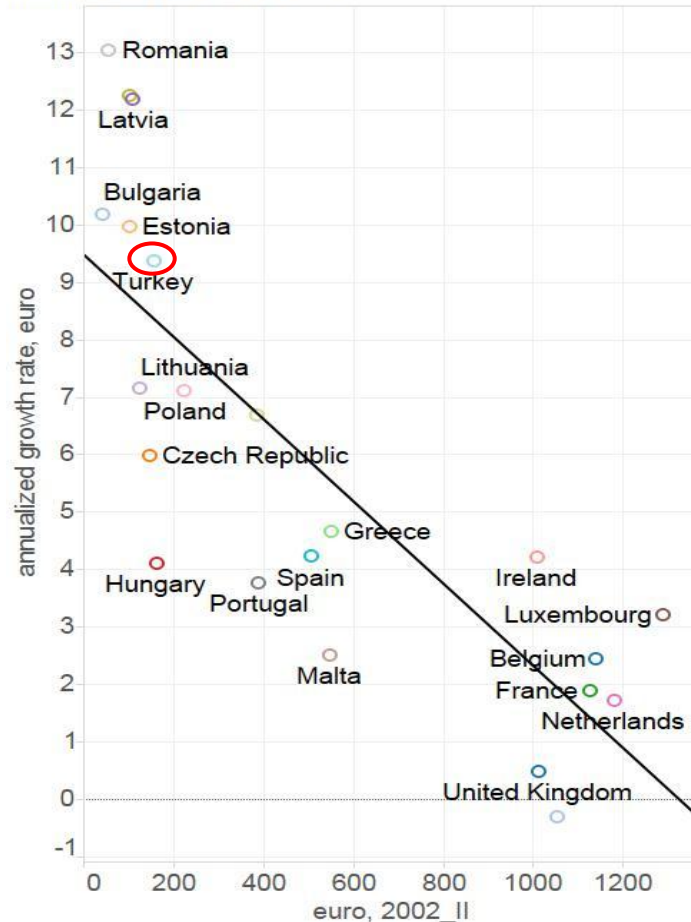
Source: Authors' calculations based on LFS data and Turkish Statistical Institute.

Notes: size of the bubble shows the number of employed.

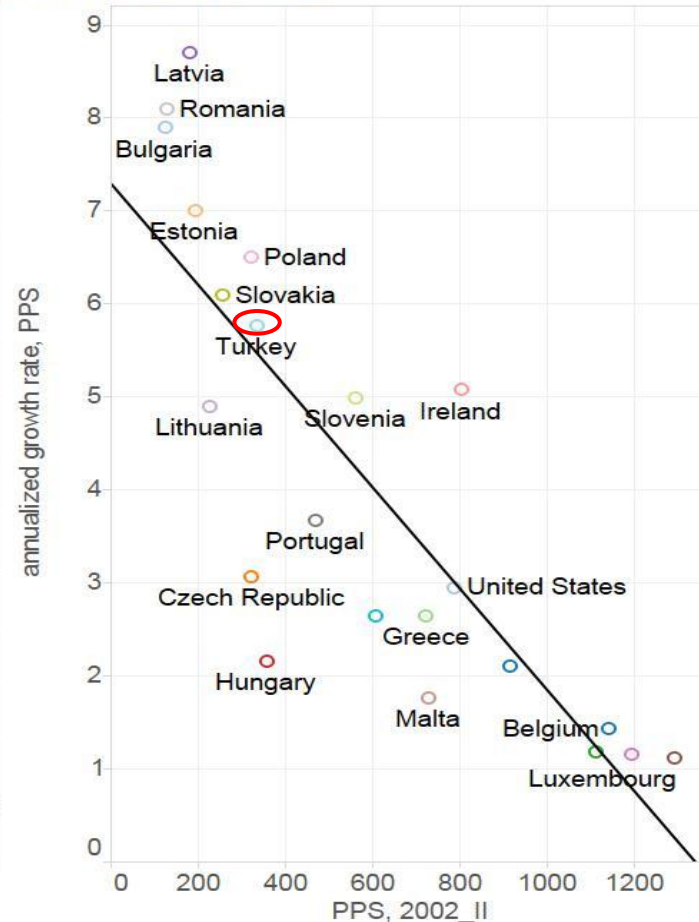
and increases in the minimum wage have been significant in this period 2002-2011

24

Minimum wage growth, euro

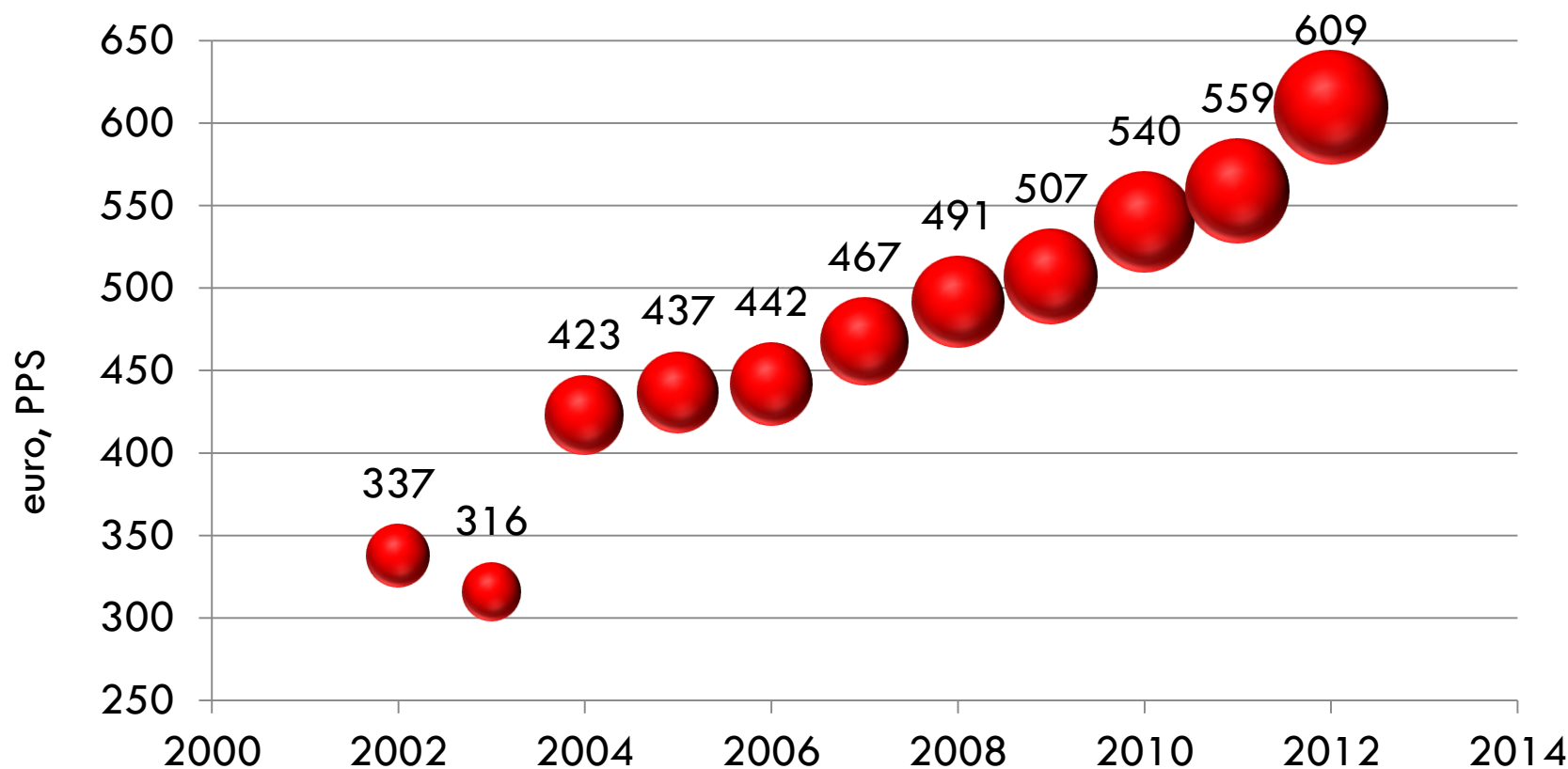


Minimum wage growth, PPS



Minimum wage, euro PPS

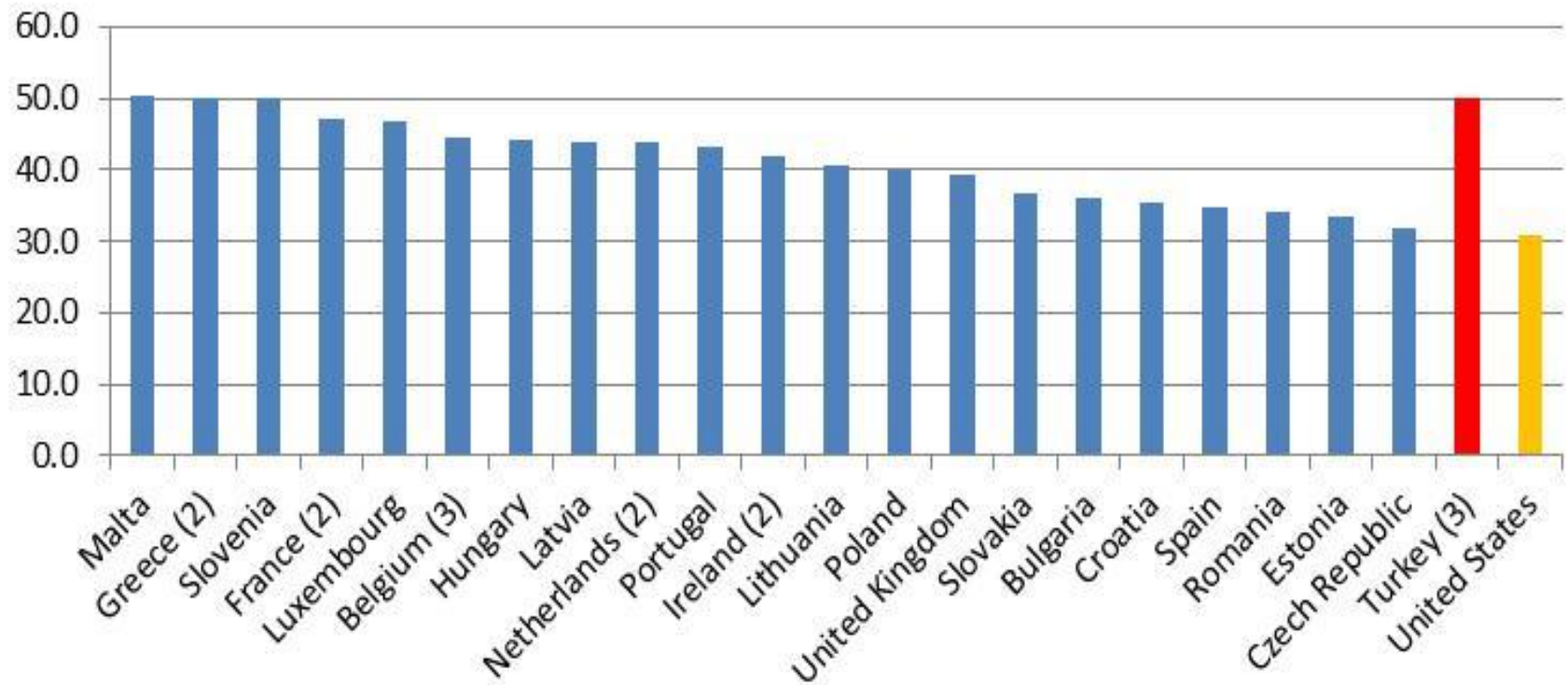
25



Source: Azevedo, J.P. and Atamanov, A. 2014. Pathways to the middle class in Turkey: How have reducing poverty and boosting shared prosperity helped. Policy Research Working Paper, 6834. World Bank.

Minimum wages as proportion of the mean value of average gross monthly earnings, 2012

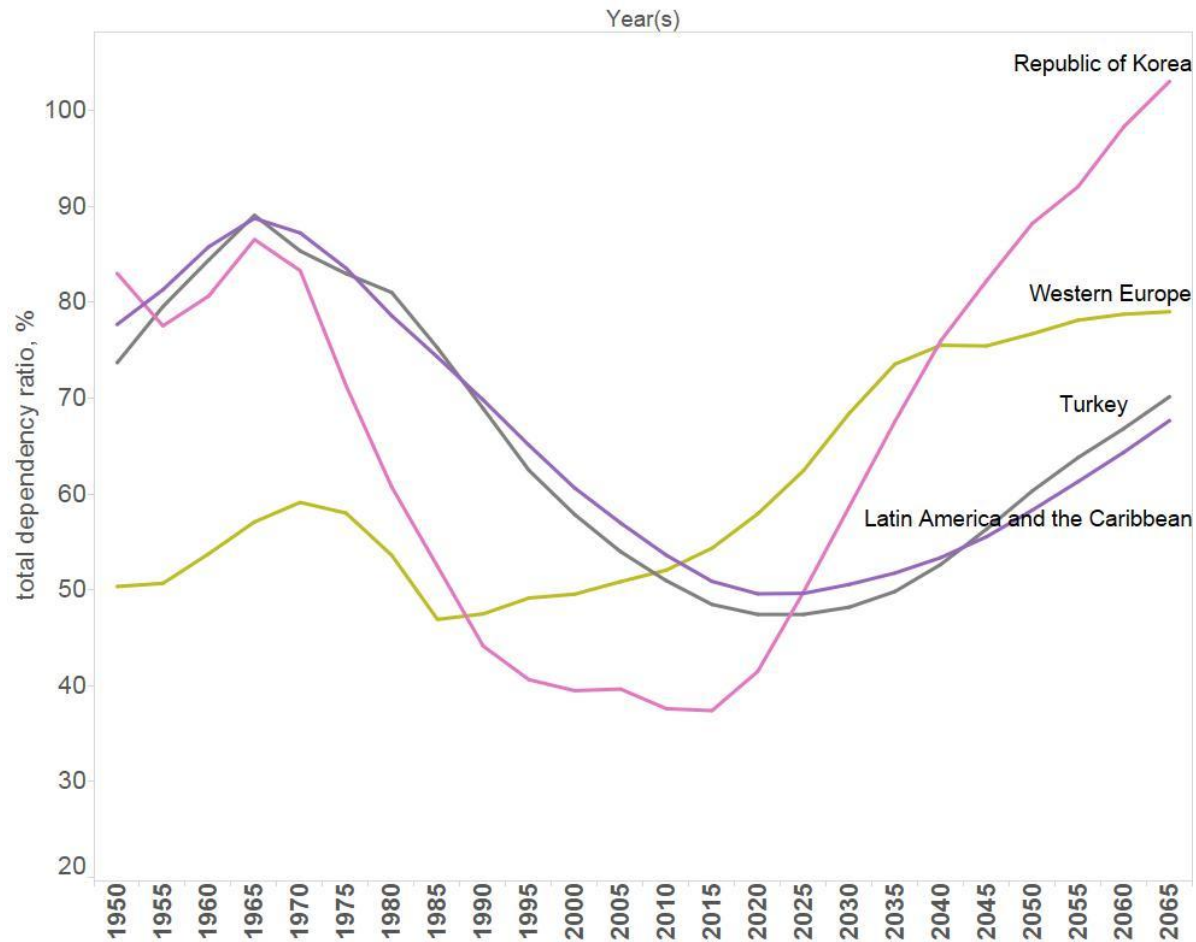
26



Demographics has helped, and will continue to do so for a few more years

Age-dependency ratios (UN Pop. 2012 revision)

27



Source: United Nations, Department of Economic and Social Affairs, Population Division (2013): World Population Prospects: The 2012 Revision. New York.

Note: The total dependency ratio is the ratio of the sum of the population aged 0-19 and that aged 65+ to the population aged 20-64.

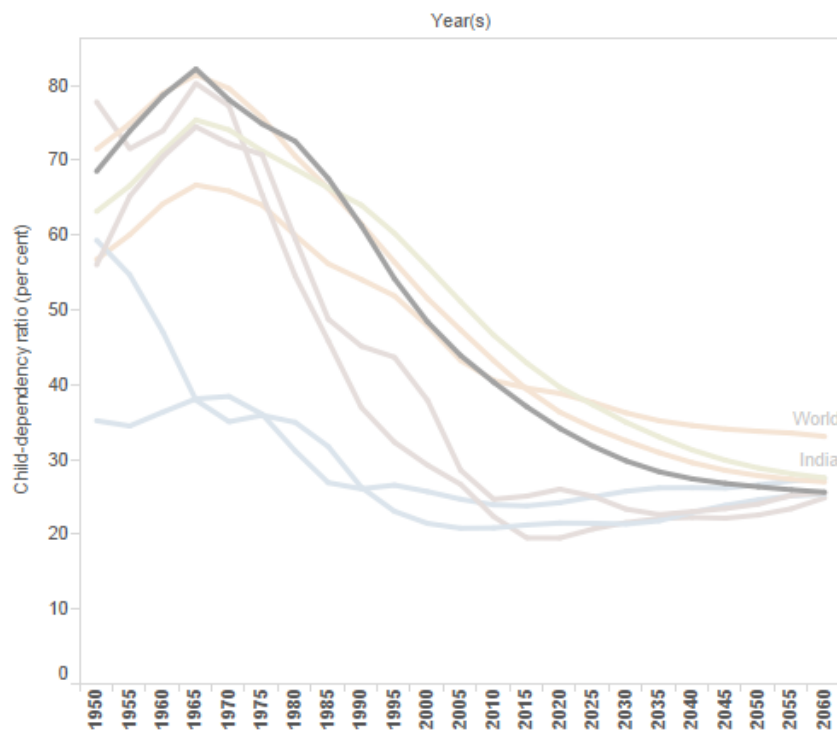
Demographics is helping

Age-dependency ratios (UN Pop. 2012 revision)

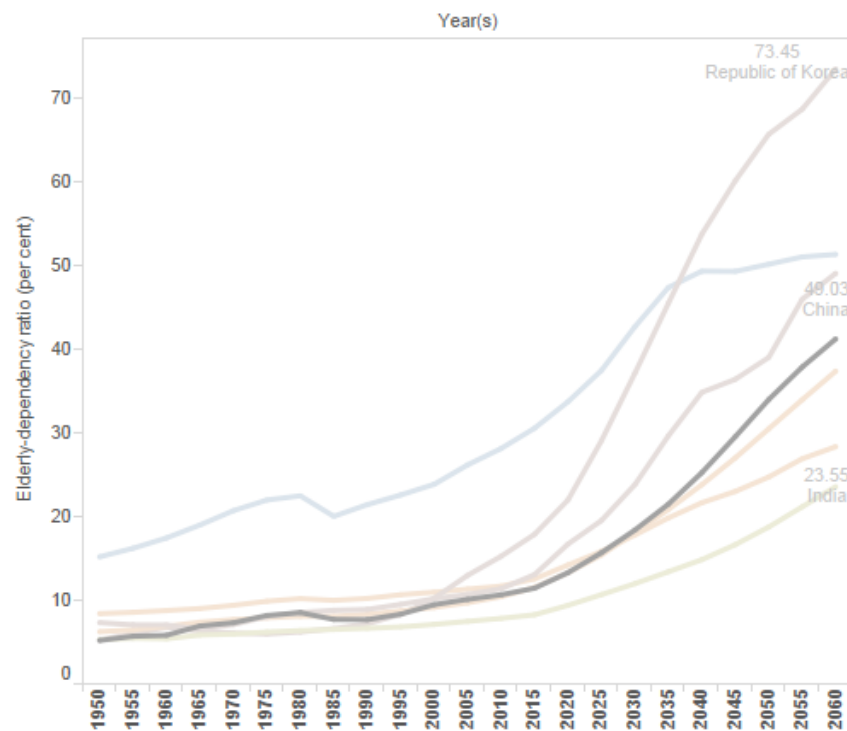
28

Age-dependency ratios

Child-dependency ratio (per cent)



Elderly-dependency ratio (per cent)



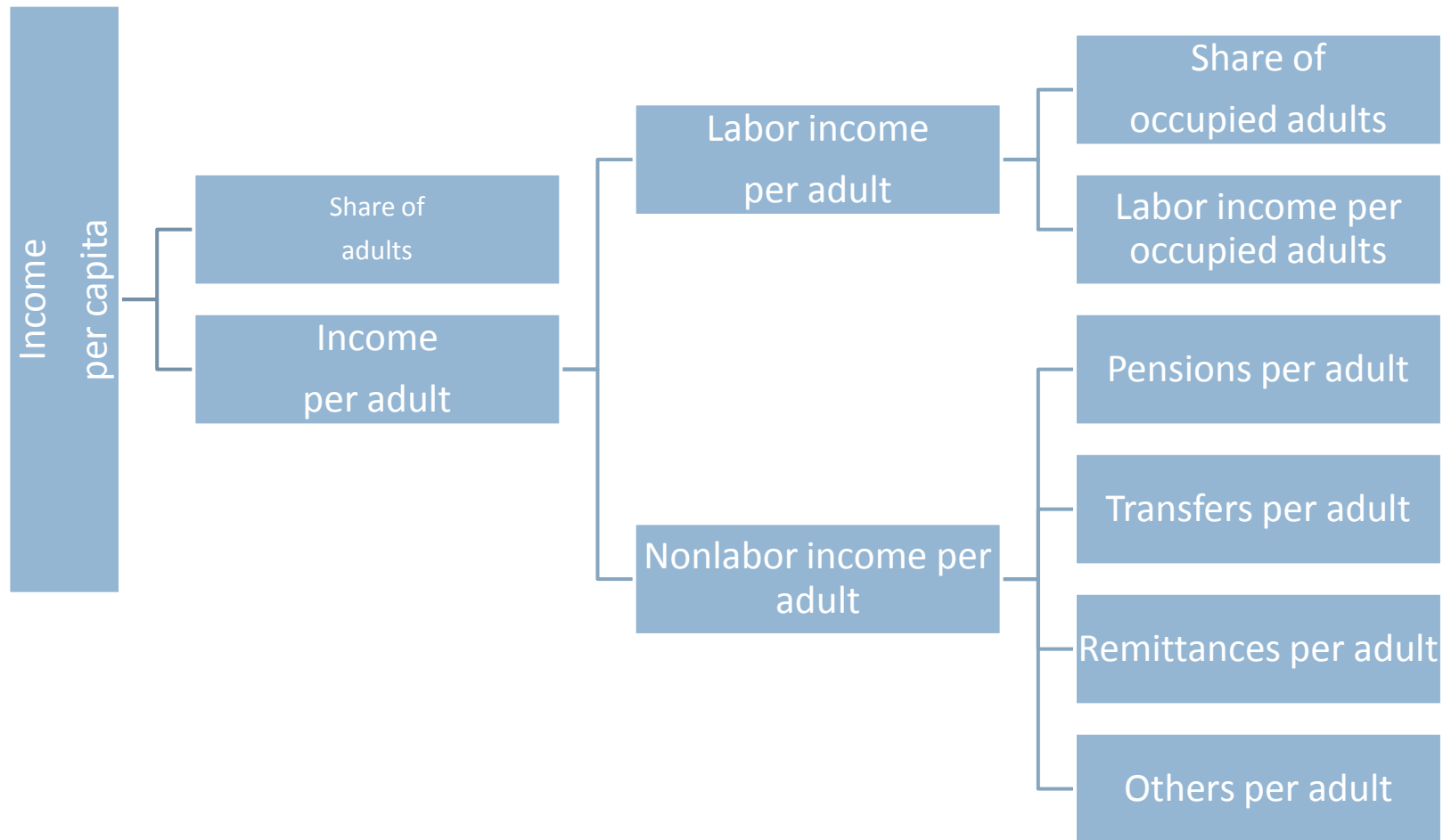
Note: The United Nations World Population Prospects: The 2012 Revision contains estimates since 1950 and projections until 2100 for every country in the world, including estimates and projections of 60 demographic indicators such as birth rates, deaths rates, infant mortality rates and life expectancy. A sample set of summary indicators are provided as part of UNdata. More detailed data by age and sex are available from the Population Division web site <<http://esa.un.org/unpd/wpp/index.htm>> and on CD-ROM/DVD.

Source: United Nations, Department of Economic and Social Affairs, Population Division, World Population Prospects: The 2012 Revision, New York, 2013.

Obrigado

Illustrative diagram of proposed decomposition of income per capita

30



Measuring the contributions to poverty reduction

31

$$\square \quad \vartheta = \Phi \left(F \left(Y_{pc} \left(\frac{n_A}{n}, \frac{n_o}{n_A}, y_{PO}^L, y_{PA}^{NL} \right) \right) \right),$$

where

$$y_{PO}^L = \frac{1}{n_o} \sum_{i \in A}^n y_i^L \text{ and}$$

$$y_{PA}^{NL} = \frac{1}{n_A} \sum_{i \in A}^n y_i^{NL}.$$

Proposed Methodology along One Possible Path

32

1.	$\vartheta_0 = \Phi \left(F \left(Y_{pc} \left(\frac{n_A}{n}, \frac{n_o}{n_A}, y_{PO}^L, y_{PA}^{NL} \right) \right) \right)$	Initial inequality rate
2.	$\widehat{\vartheta}_1 = \Phi \left(F \left(Y_{pc} \left(\frac{\widehat{n}_A}{n}, \frac{n_o}{n_A}, y_{PO}^L, y_{PA}^{NL} \right) \right) \right)$	Contribution of share of household adults is $\widehat{\vartheta}_1 - \vartheta_0$
3.	$\widehat{\vartheta}_2 = \Phi \left(F \left(Y_{pc} \left(\frac{\widehat{n}_A}{n}, \frac{\widehat{n}_o}{n_A}, y_{PO}^L, y_{PA}^{NL} \right) \right) \right)$	Contribution of the share of occupied adults is $\widehat{\vartheta}_2 - \widehat{\vartheta}_1$
4.	$\widehat{\vartheta}_3 = \Phi \left(F \left(Y_{pc} \left(\frac{\widehat{n}_A}{n}, \frac{\widehat{n}_o}{n_A}, y_{PO}^L, \widehat{y}_{PA}^{Pens}, y_{PA}^{Trans}, y_{PA}^{Cap}, y_{PA}^{OthNL} \right) \right) \right)$	Contribution of pensions is $\widehat{\vartheta}_3 - \widehat{\vartheta}_2$
5.	$\widehat{\vartheta}_4 = \Phi \left(F \left(Y_{pc} \left(\frac{\widehat{n}_A}{n}, \frac{\widehat{n}_o}{n_A}, y_{PO}^L, \widehat{y}_{PA}^{Pens}, \widehat{y}_{PA}^{Trans}, y_{PA}^{Cap}, y_{PA}^{OthNL} \right) \right) \right)$	Contribution of transfers is $\widehat{\vartheta}_4 - \widehat{\vartheta}_3$
6.	$\widehat{\vartheta}_5 = \Phi \left(F \left(Y_{pc} \left(\frac{\widehat{n}_A}{n}, \frac{\widehat{n}_o}{n_A}, y_{PO}^L, \widehat{y}_{PA}^{Pens}, \widehat{y}_{PA}^{Trans}, \widehat{y}_{PA}^{Cap}, y_{PA}^{OthNL} \right) \right) \right)$	Contribution of capital income is $\widehat{\vartheta}_5 - \widehat{\vartheta}_4$
7.	$\widehat{\vartheta}_6 = \Phi \left(F \left(Y_{pc} \left(\frac{\widehat{n}_A}{n}, \frac{\widehat{n}_o}{n_A}, y_{PO}^L, \widehat{y}_{PA}^{Pens}, \widehat{y}_{PA}^{Trans}, \widehat{y}_{PA}^{Cap}, \widehat{y}_{PA}^{OthNL} \right) \right) \right)$	Contribution of other nonlabor income is $\widehat{\vartheta}_6 - \widehat{\vartheta}_5$
8.	$\vartheta_F = \Phi \left(F \left(Y_{pc} \left(\frac{n_A}{n}, \frac{n_o}{n_A}, y_{PO}^L, y_{PA}^{NL} \right) \right) \right)$	Final inequality rate. Contribution of labor income is $\widehat{\vartheta}_F - \widehat{\vartheta}_3$