

# Redistribution by the state in Austria 2019

**and developments from 2005 to 2019**

Silvia Rocha-Akis, Jürgen Bierbaumer, Benjamin Bittschi,  
Julia Bock-Schappelwein, Martina Einsiedl, Marian Fink,  
Michael Klien, Simon Loretz, Christine Mayrhuber

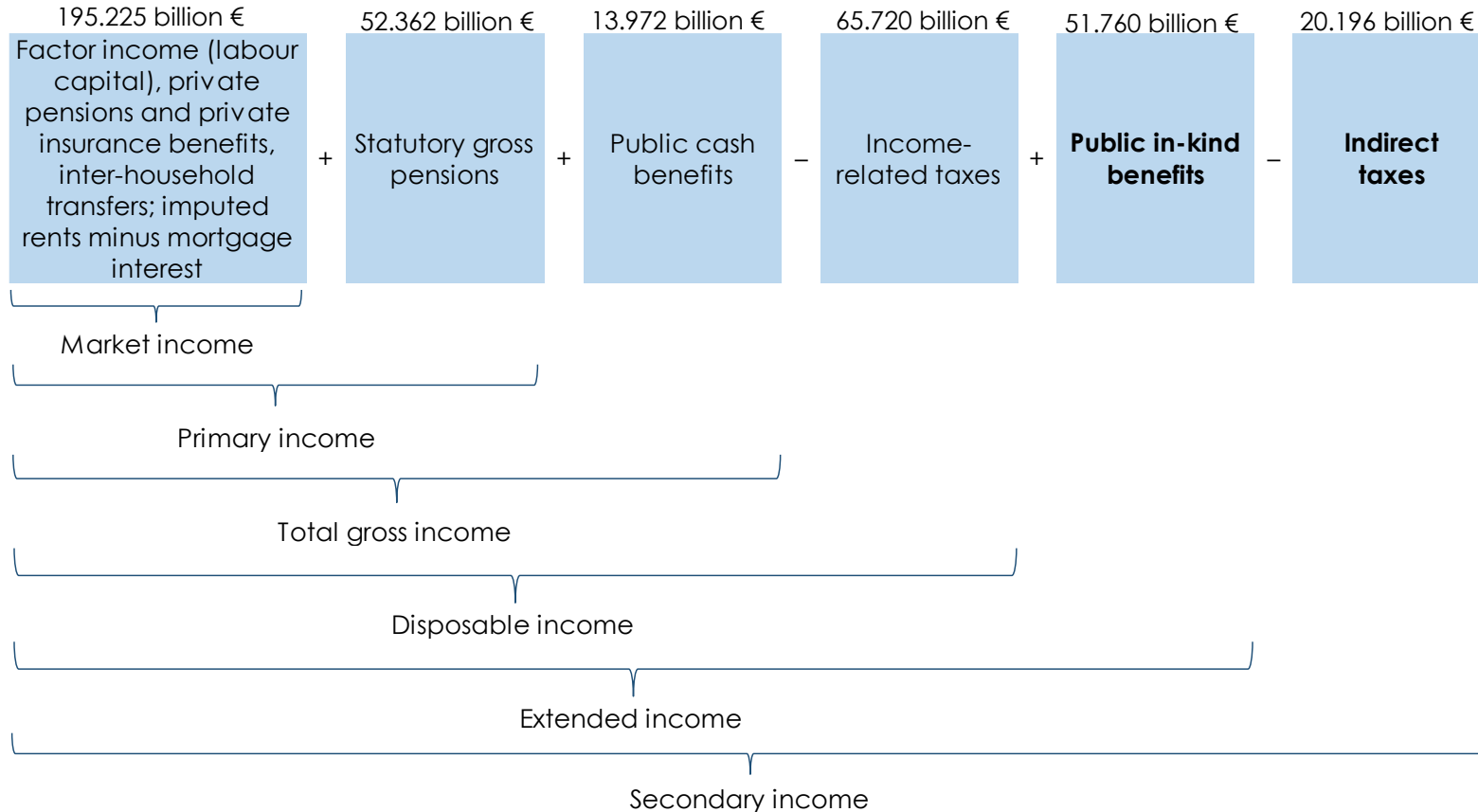
Vienna, January 08, 2023

# Motivation

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- WIFO regularly publishes redistribution analyses for Austria based on a broad income concept (including public in-kind benefits and indirect taxes)
- A previous WIFO study showed diverging income growth between younger and older households between 2010 and 2015 → is there a trend?
- Knowledge about changes or trends in the (re)distribution of income is important from a social policy perspective (and for designing effective reforms)

# Schematic representation of income concepts, 2019



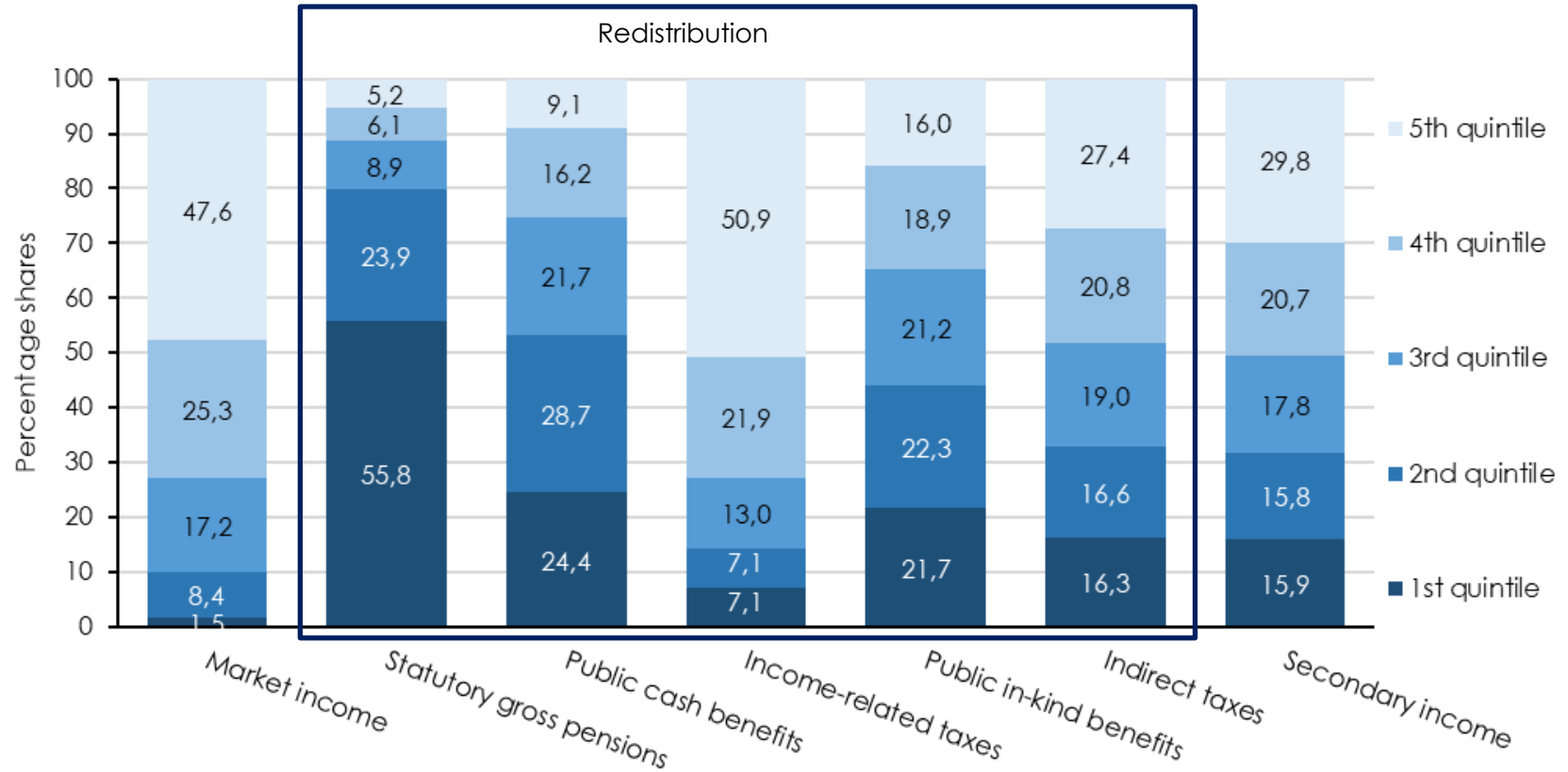
S: Redistribution by the state in Austria 2019 (Rocha-Akis et al., 2023). Employers' social contributions are excluded from both factor income and income-related taxes.

# Data

- Unit of analysis
  - Total population (individuals) living in private households
- Data sources (Austrian data)
  - **Household Budget Survey** (published every 5 years): 2004/05, 2009/10, 2014/15, 2019/20 (adjusted for the COVID-19 effect)
    - Statistical matching with EU-SILC to link income and expenditure data and to consider indirect taxes
  - **EU-SILC** 2006, 2011 (survey), 2011 (administrative data), 2016, 2020
  - **Household Finance and Consumption Survey** 2010/11, 2014, 2017
    - Statistical matching with EU-SILC to assign interest and dividend income from HFCS
  - **WIFO Microsimulation model** (income-related taxes, family benefits)
  - Other data used in assigning (mostly in-kind) benefits at the individual or household level: Education expenditure statistics, children's day-care centre statistics, health expenditure according to the "System of Health Accounts (SHA)" of Statistik Austria, Gesundheit Österreich GmbH (GÖG), federal financial statements, Federal Ministry of Labour and Economy (ELIS), AMS-DWH, Transparency portal ...
- Repeated cross sections over a period of 15 years (income years **2005, 2010, 2015, 2019**)
- All income components equivalised based on EU-scale
- Distributional analysis considering total population and household types

# Distribution of public benefits and taxes, 2019

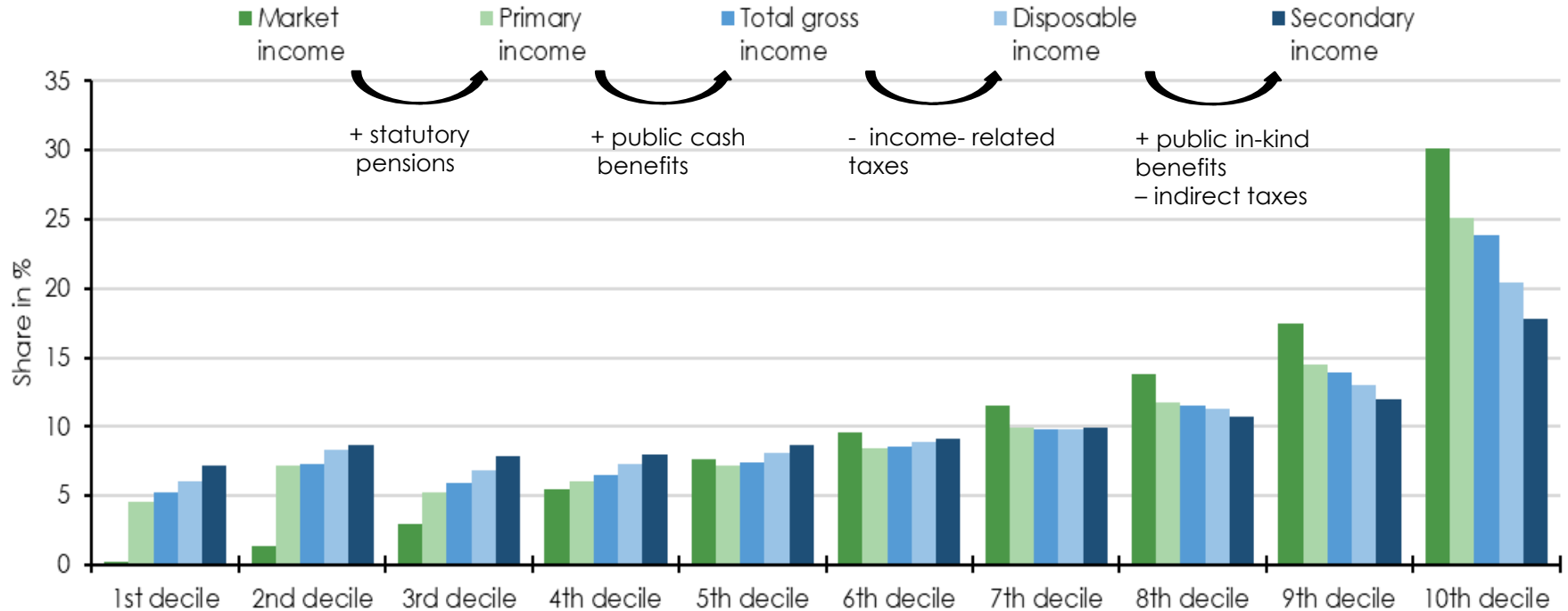
Quantiles of equivalent market income



S: Redistribution by the state in Austria 2019 (Rocha-Akis et al., 2023).

# Distribution of income before and after taxes and transfers, 2019

Quantiles of equivalent market income

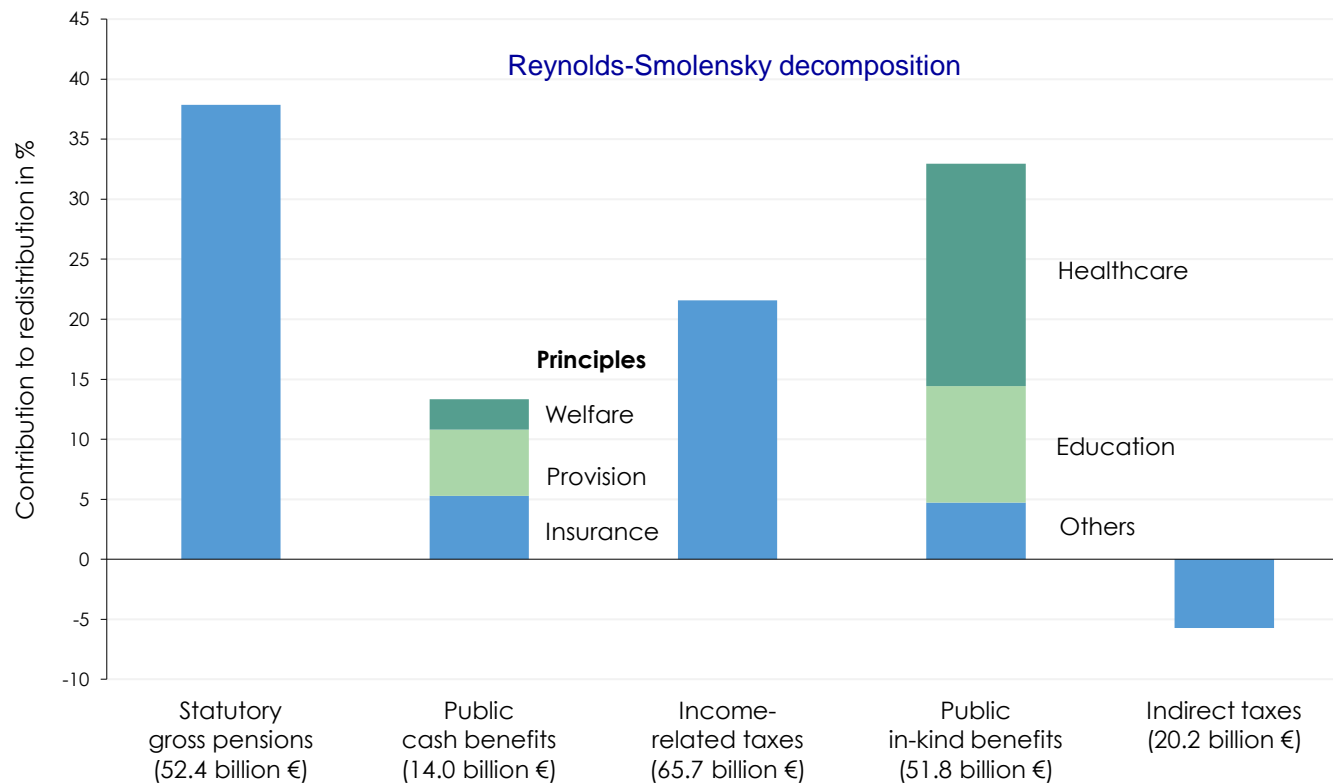


S: Redistribution by the state in Austria 2019 (Rocha-Akis et al., 2023).

# Relative redistributive effect of benefits and taxes, 2019

## Public cash benefits

- *Insurance principle:* maternity allowance, sickness benefit, unemployment insurance benefits, accident pension
- *Provision principle:* family benefit, child tax credit, school bonus, childcare benefit, advance maintenance payments and care allowance
- *Welfare principle:* means-tested minimum income, social assistance, education-related benefits and housing benefit



S: Redistribution by the state in Austria 2019 (Rocha-Akis et al., 2023). – <sup>1)</sup> Others: Family, housing, unemployment.

# Gini coefficients before and after redistribution over time

## Market income

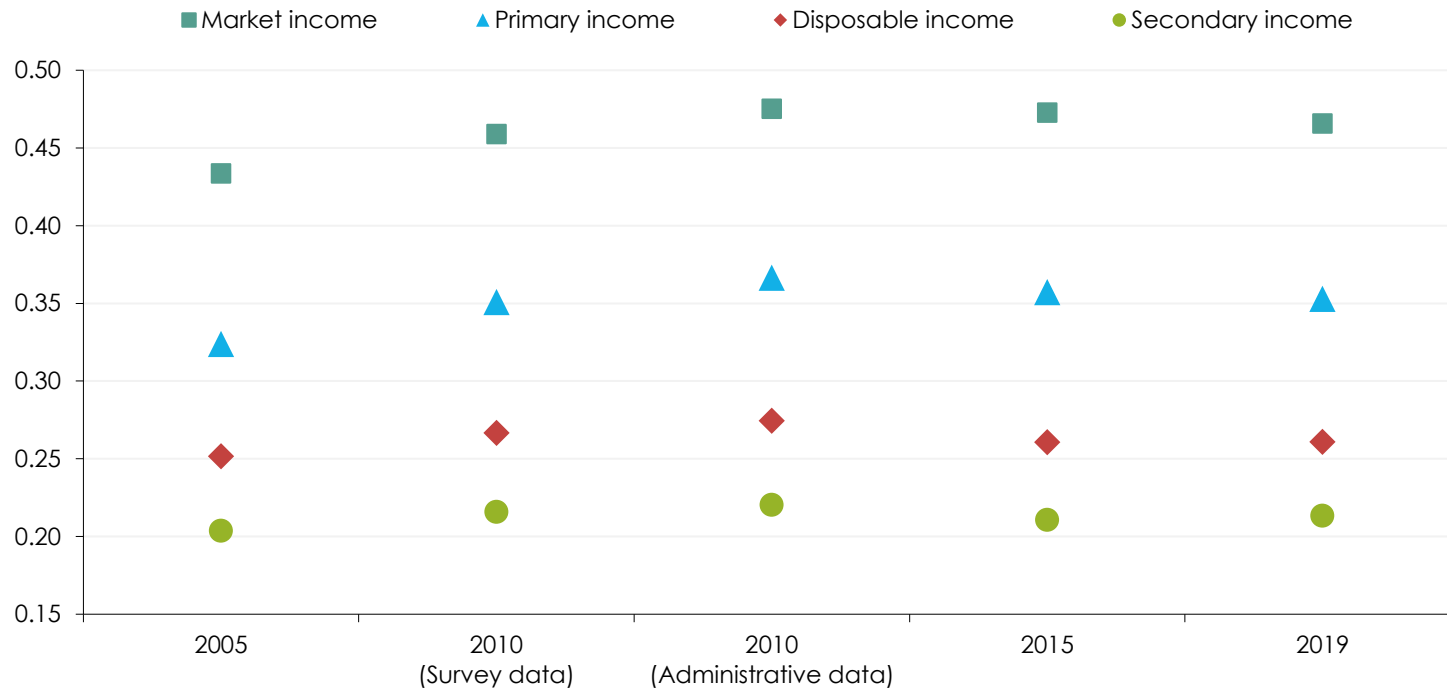
+ statutory gross pensions  
= **Primary income**

## Primary income

+ public cash benefits  
– income-related taxes  
= **Disposable income**

## Disposable income

+ public in-kind benefits  
– indirect taxes  
= **Secondary income**





# At-risk-of-poverty-rates over time

60% of national median income

## Market income

+ statutory gross pensions

= **Primary income**

Primary income

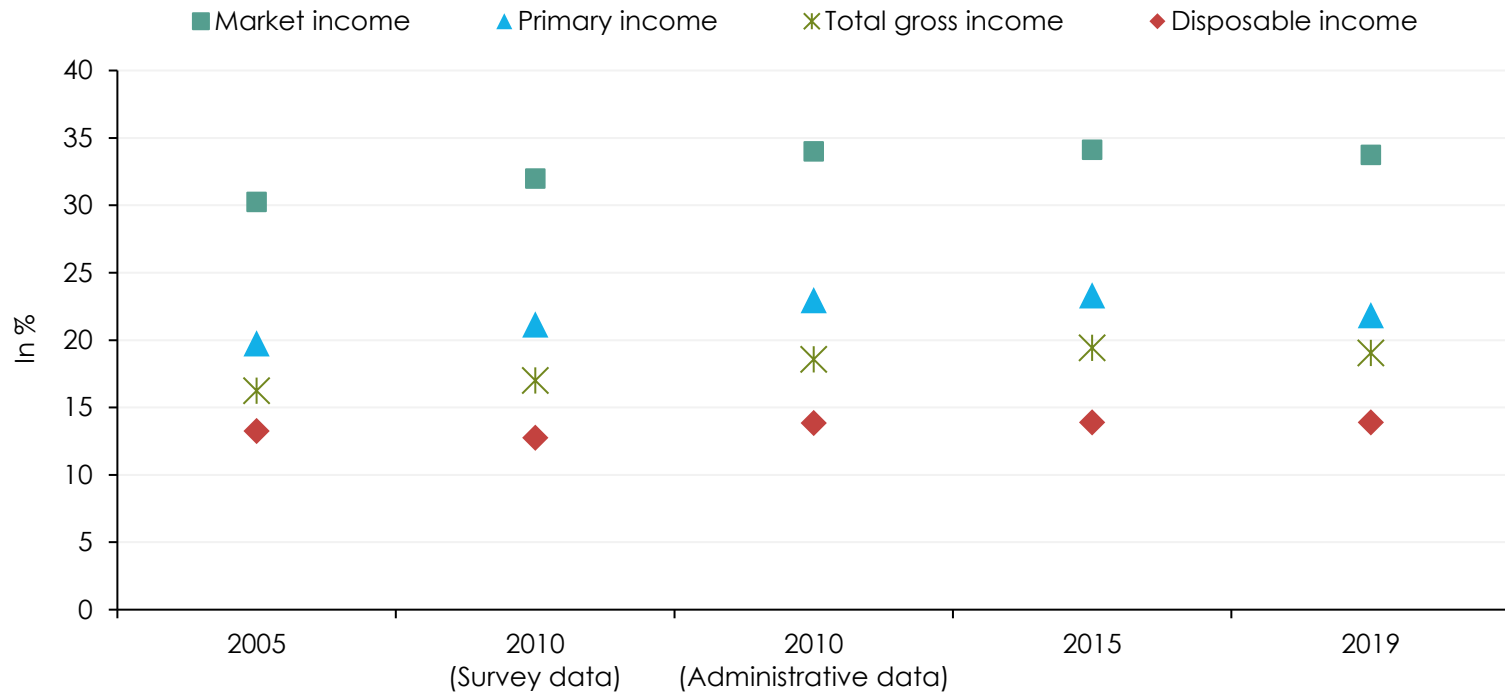
+ public cash benefits

= **Total gross income**

Total gross income

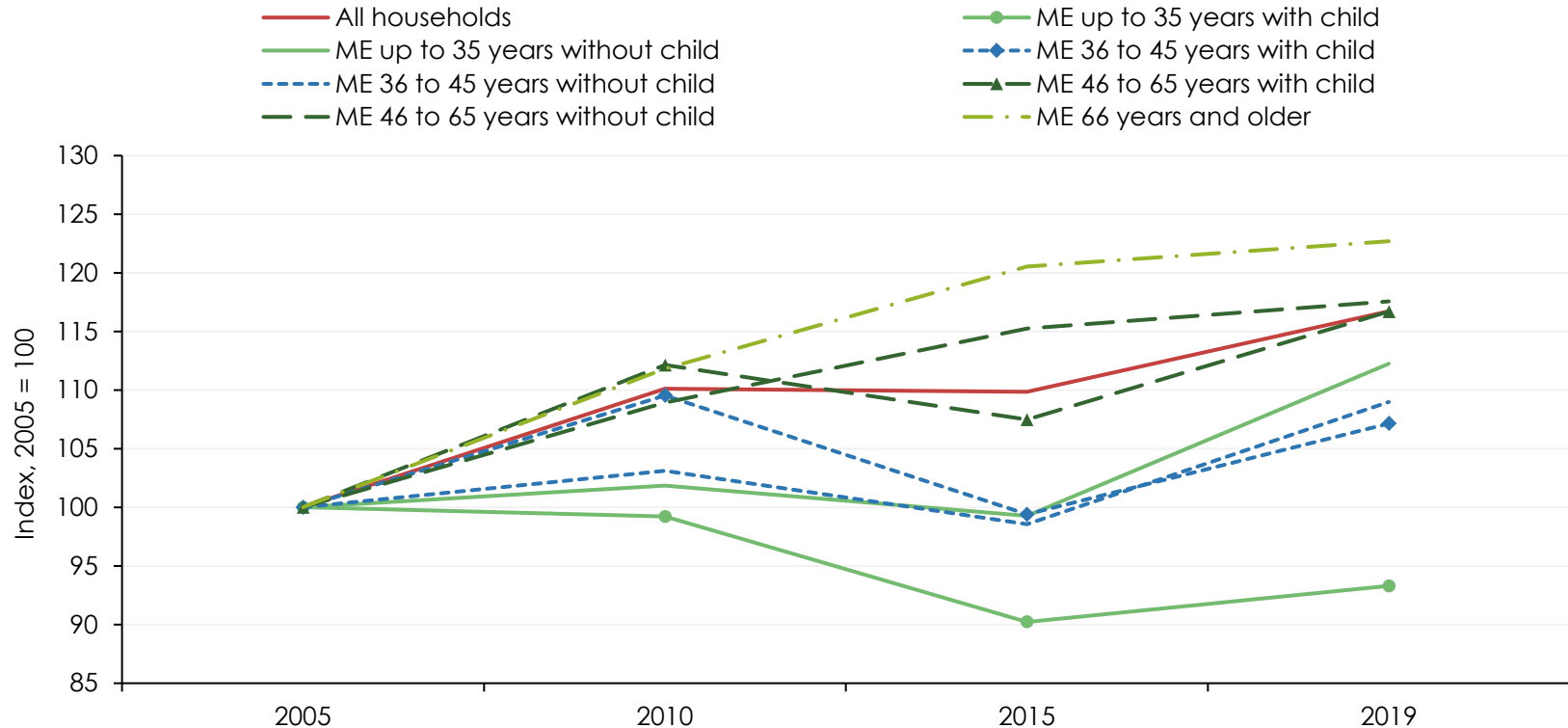
– income-related taxes

= **Disposable income**



S: Redistribution by the state in Austria 2019 (Rocha-Akis et al., 2023).

# Divergence in the development of real average primary income by household type



S: Redistribution by the state in Austria 2019 (Rocha-Akis et al., 2023). – ME... main earner.

# Conclusion

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- In 2019, through redistribution the Gini coefficient decreased from 0,466 (market income) to 0,261 (disposable income) and 0,213 (secondary income)
- Most redistributive instruments are intended for intertemporal and horizontal redistribution
  - Share of age-dependent benefits amounts to 70% of total benefits (public education system, family benefits, pensions)
  - Pensions have the highest relative redistributive impact; Austria's pension system is dominated by mandatory PAYG scheme supplemented by means-tested payments financed by general tax revenues
- Between 2005 and 2019
  - the overall inequality and poverty measures remained remarkably stable
  - the redistributive contribution of the PIT successively increased
  - the income position of households with main earners (ME) below 45 shifted significantly downwards in the income distribution both before and after redistribution
  - households with younger ME experienced weaker income growth; those with ME below 35 with dependent children experienced negative real average market and disposable income growth

# Publications

- Guger, A. (1987). Umverteilung durch öffentliche Haushalte in Österreich. WIFO. <http://www.wifo.ac.at/wwa/pubid/2895>
- Guger, A. (1996). Umverteilung durch öffentliche Haushalte in Österreich. WIFO. <http://www.wifo.ac.at/wwa/pubid/2814>
- Guger, A., Agwi, M., Buxbaum, A., Festl, E., Knittler, K., Halsmayer, V., Pitlik, H., Sturn, S., & Wüger, M. (2009). Umverteilung durch den Staat in Österreich. WIFO. <http://www.wifo.ac.at/wwa/pubid/36801>
- Rocha-Akis, S., Bierbaumer-Polly, J., Einsiedl, M., Guger, A., Klien, M., Leoni, T., Lutz, H., & Mayrhuber, C. (2016). Umverteilung durch den Staat in Österreich. WIFO. <http://www.wifo.ac.at/wwa/pubid/58820>
- Rocha-Akis, S., Bierbaumer-Polly, J., Bock-Schappelwein, J., Einsiedl, M., Klien, M., Leoni, T., Loretz, S., Lutz, H., & Mayrhuber, C. (2019). Umverteilung durch den Staat in Österreich 2015. WIFO. <http://www.wifo.ac.at/wwa/pubid/61782>
- Rocha-Akis, S., Bierbaumer, J., Bittschi, B., Bock-Schappelwein, J., Einsiedl, M., Fink, M., Klien, M., Loretz, S., & Mayrhuber, C. (2023). Umverteilung durch den Staat in Österreich 2019 und Entwicklungen von 2005 bis 2019. WIFO. <https://www.wifo.ac.at/wwa/pubid/69741>



## **Silvia Rocha-Akis**

silvia.rocha-akis@wifo.ac.at

(+43 1) 798 26 01 - 259

[https://www.wifo.ac.at/silvia\\_rocha-akis](https://www.wifo.ac.at/silvia_rocha-akis)

# WIFO study "Redistribution by the State": Main content

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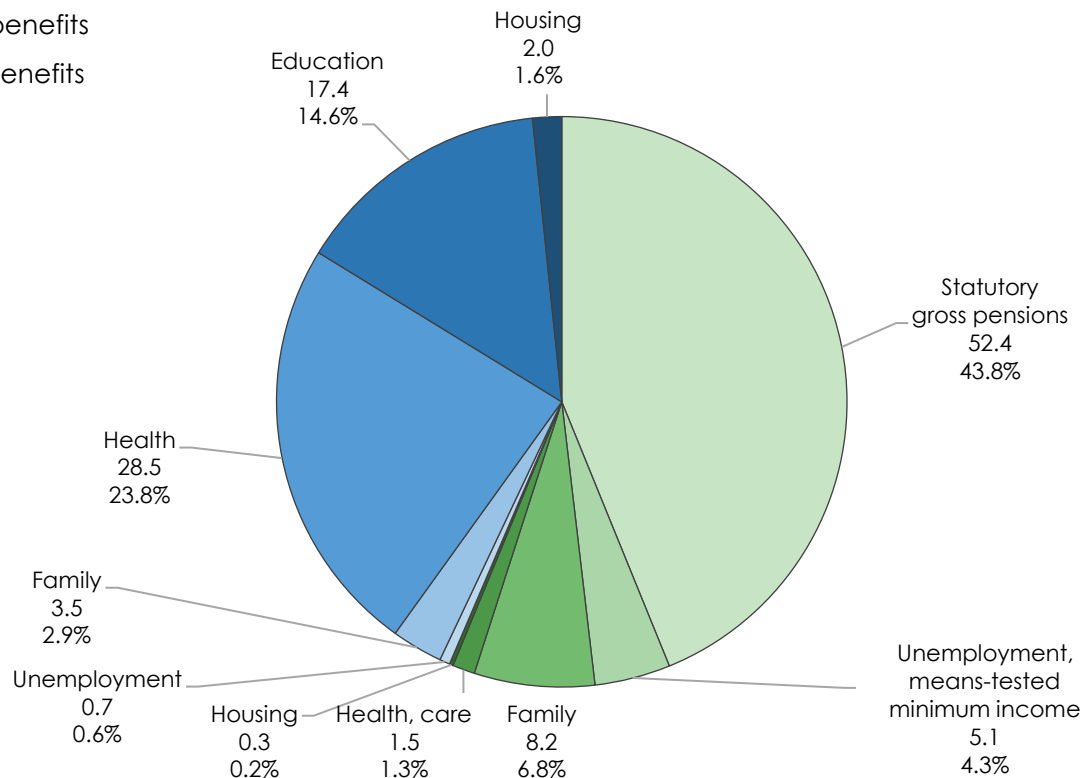
- Change in distribution of market income
- Components and distribution of primary income of the population in private households
- Distributional effects of public cash and in-kind benefits
  - Distributional effects of labour market policy
  - Distributional effects of social assistance and means-tested minimum income
  - Distributional effects of family benefits
  - Distributional effects of the public education system
  - Distributional effects of the benefits of the public healthcare system
  - Distributional effects of housing subsidies
- Taxes and social contributions
  - Distributional effects of direct taxes and social contributions
  - Distributional effects of indirect taxes
- The overall effect of redistribution in 2019
- Developments from 2005 to 2019 for the population in private households and differentiated by household type

# Composition of assigned public benefits, 2019

Billion € and shares in %

**Green:** Public cash benefits

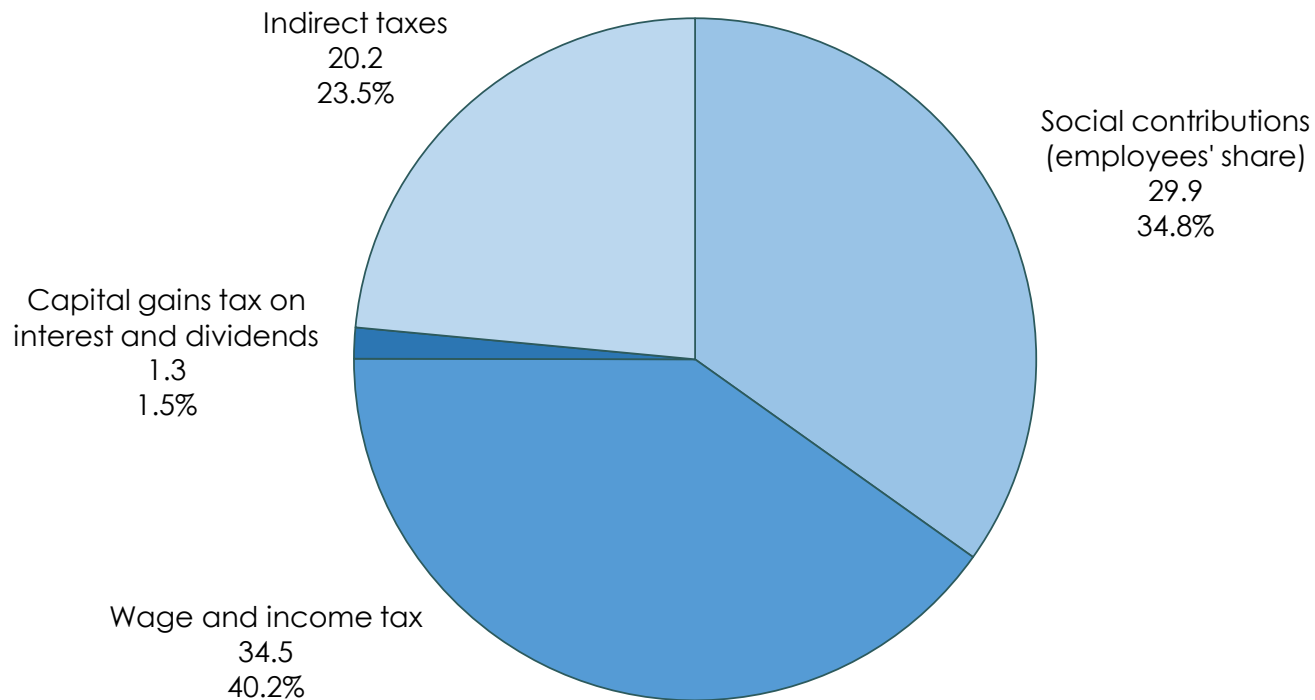
**Blue:** Public in-kind benefits



S: Redistribution by the state in Austria 2019 (Rocha-Akis et al., 2023).

# Composition of assigned taxes and social contributions, 2019

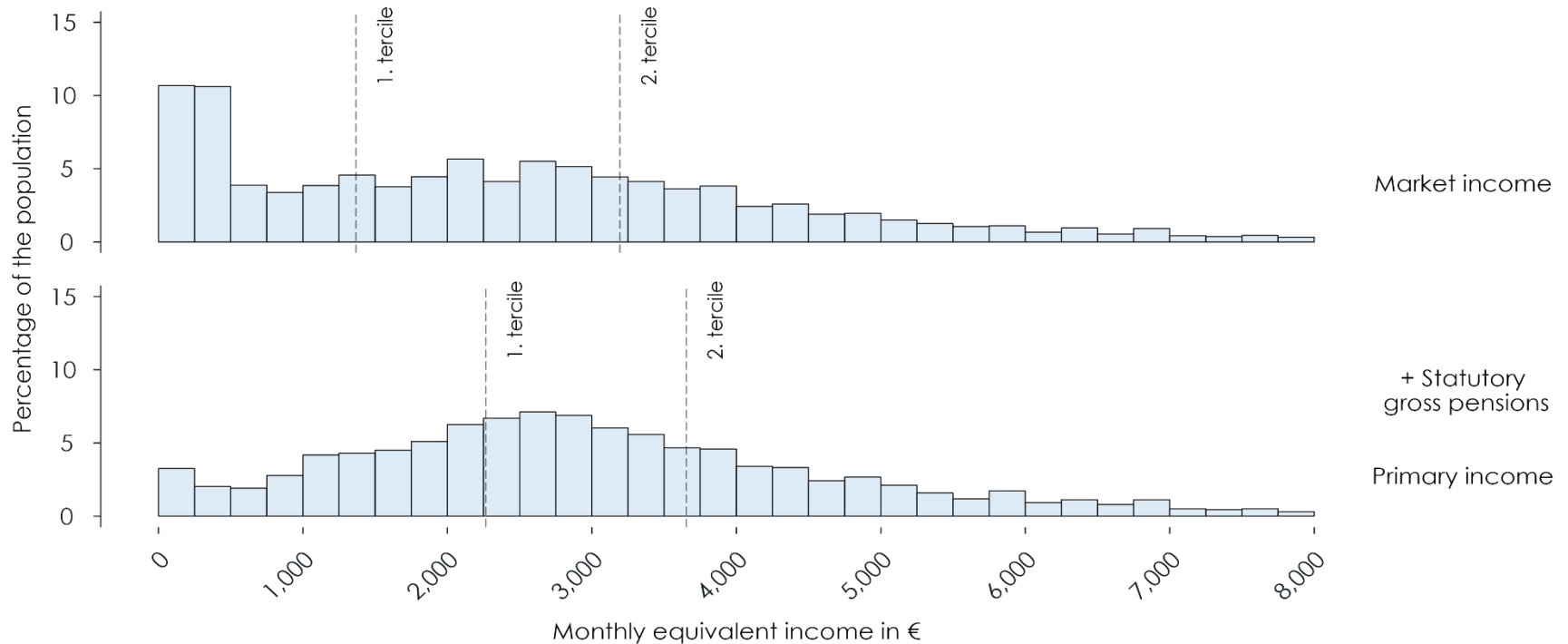
Billion € and shares in %



S: Redistribution by the state in Austria 2019 (Rocha-Akis et al., 2023).



# Frequency distribution of market income w/wo pensions, 2019



**High concentration of pensioners in the lower deciles of the market income distribution.  
To avoid grouping low-income households with low labour and capital income together with pensioners with high pensions in the lower income groups, we sort individuals by equivalent primary income.**

S: Redistribution by the state in Austria 2019 (Rocha-Akis et al., 2023).

# Distribution of primary income components, 2019

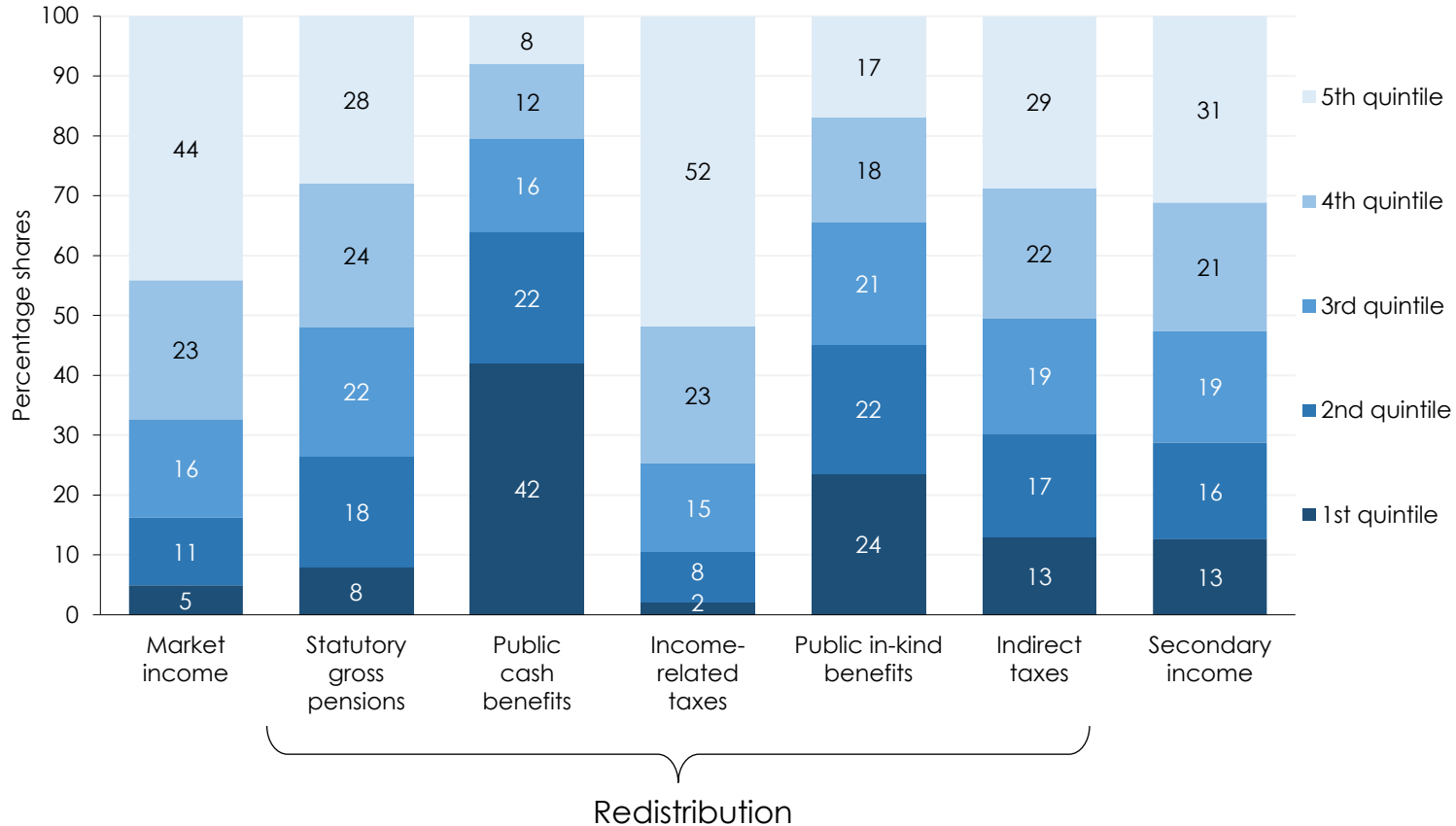
Quantiles of equivalent primary income

Equivalent primary income	Market income					Total	Pensions	Net imputed rents	Primary income
	Employment income	Self-employment income	Income from letting and leasing	Interests, dividends	Private additional income				
	Percentage shares								
1 <sup>st</sup> decile	1.6	0.9	0.7	1.0	14.1	1.5	1.0	3.2	1.5
2 <sup>nd</sup> decile	3.2	2.8	2.1	1.3	24.4	3.2	7.0	6.0	4.0
3 <sup>rd</sup> decile	5.7	2.3	2.0	2.0	11.1	5.2	7.6	7.7	5.7
4 <sup>th</sup> decile	6.2	4.7	3.8	2.5	5.9	5.9	10.9	9.8	6.9
5 <sup>th</sup> decile	8.2	6.8	4.6	3.2	-0.6	7.8	9.5	9.5	8.2
6 <sup>th</sup> decile	9.0	6.3	5.5	4.3	5.2	8.5	12.1	11.7	9.3
7 <sup>th</sup> decile	11.3	6.6	3.4	4.7	11.3	10.4	12.3	11.7	10.8
8 <sup>th</sup> decile	13.9	8.7	4.1	6.5	13.8	12.9	11.6	12.1	12.6
9 <sup>th</sup> decile	15.9	16.9	17.6	15.1	10.6	16.0	13.2	13.3	15.4
10 <sup>th</sup> decile	25.1	44.1	56.1	59.4	4.2	28.5	14.9	15.0	25.8
In billion € <sup>1)</sup>	150.7	21.9	4.7	5.1	1.0	180.7	52.4	11.8	247.6

S: Redistribution by the state in Austria 2019 (Rocha-Akis et al., 2023). – <sup>1)</sup> Non-equivalised values.

# Distribution of public benefits and taxes, 2019

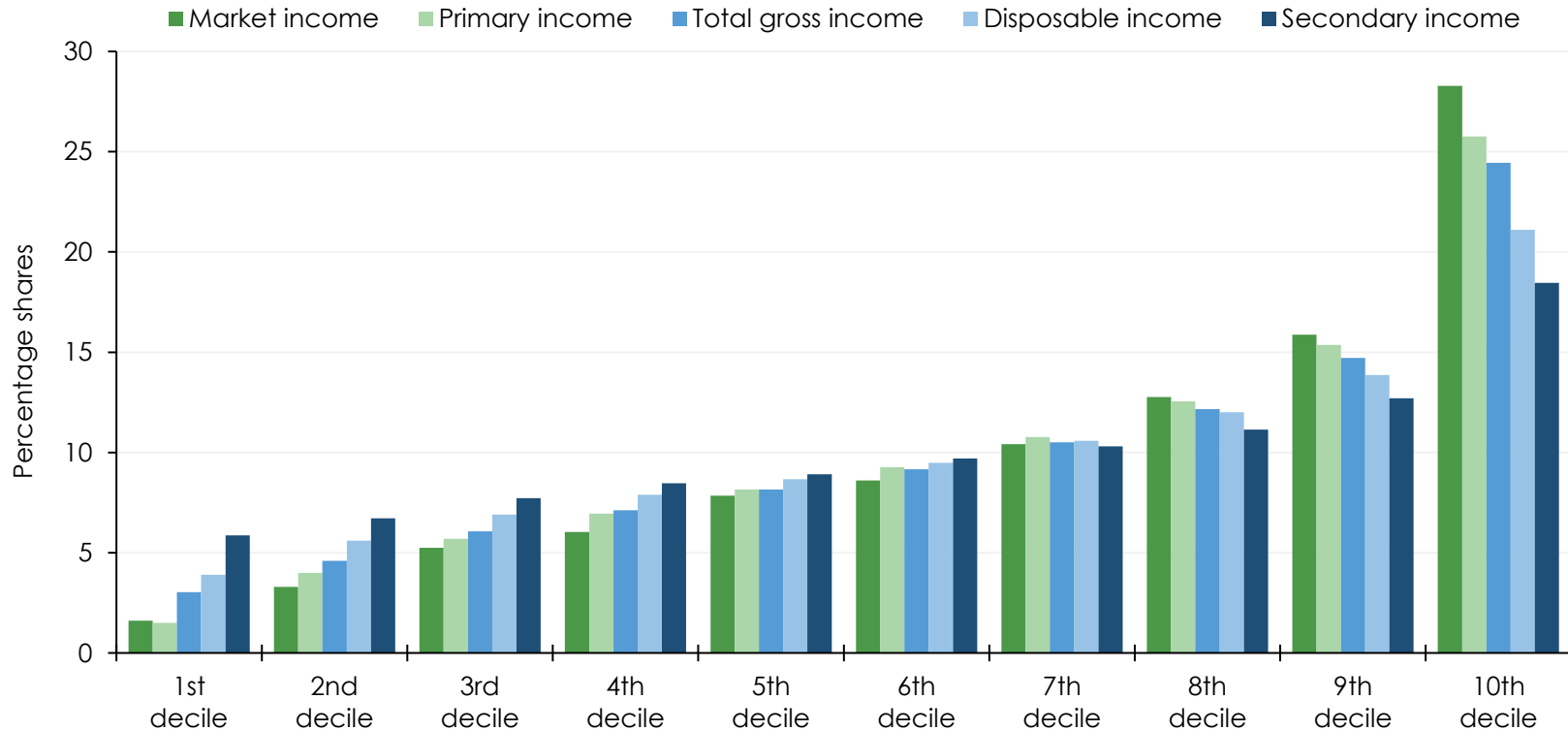
Quantiles of equivalent **primary** income



S: Redistribution by the state in Austria 2019 (Rocha-Akis et al., 2023).

# Distribution of income before and after taxes and transfers, 2019

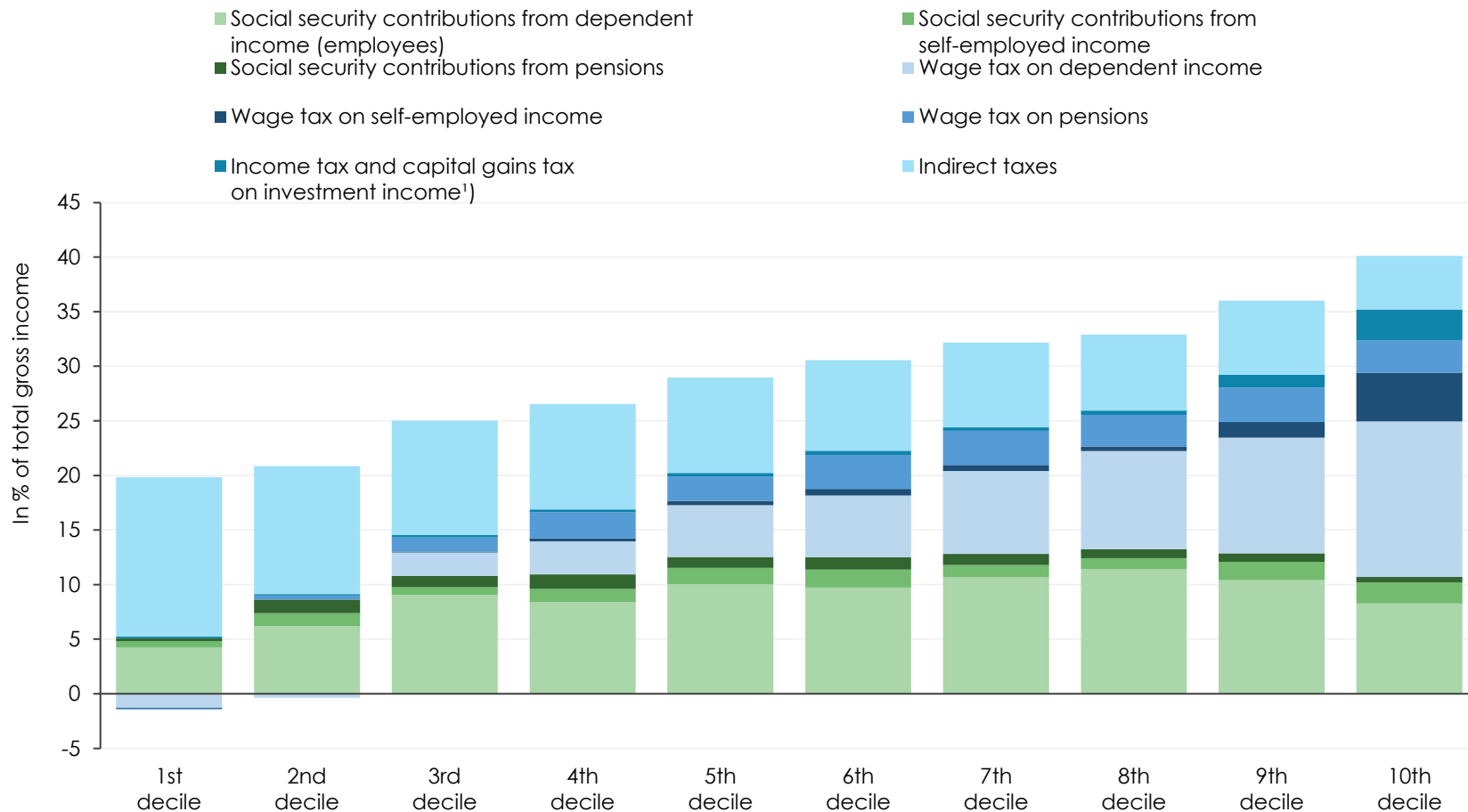
Quantiles of equivalent primary income



S: Redistribution by the state in Austria 2019 (Rocha-Akis et al., 2023).

# Tax burden, 2019

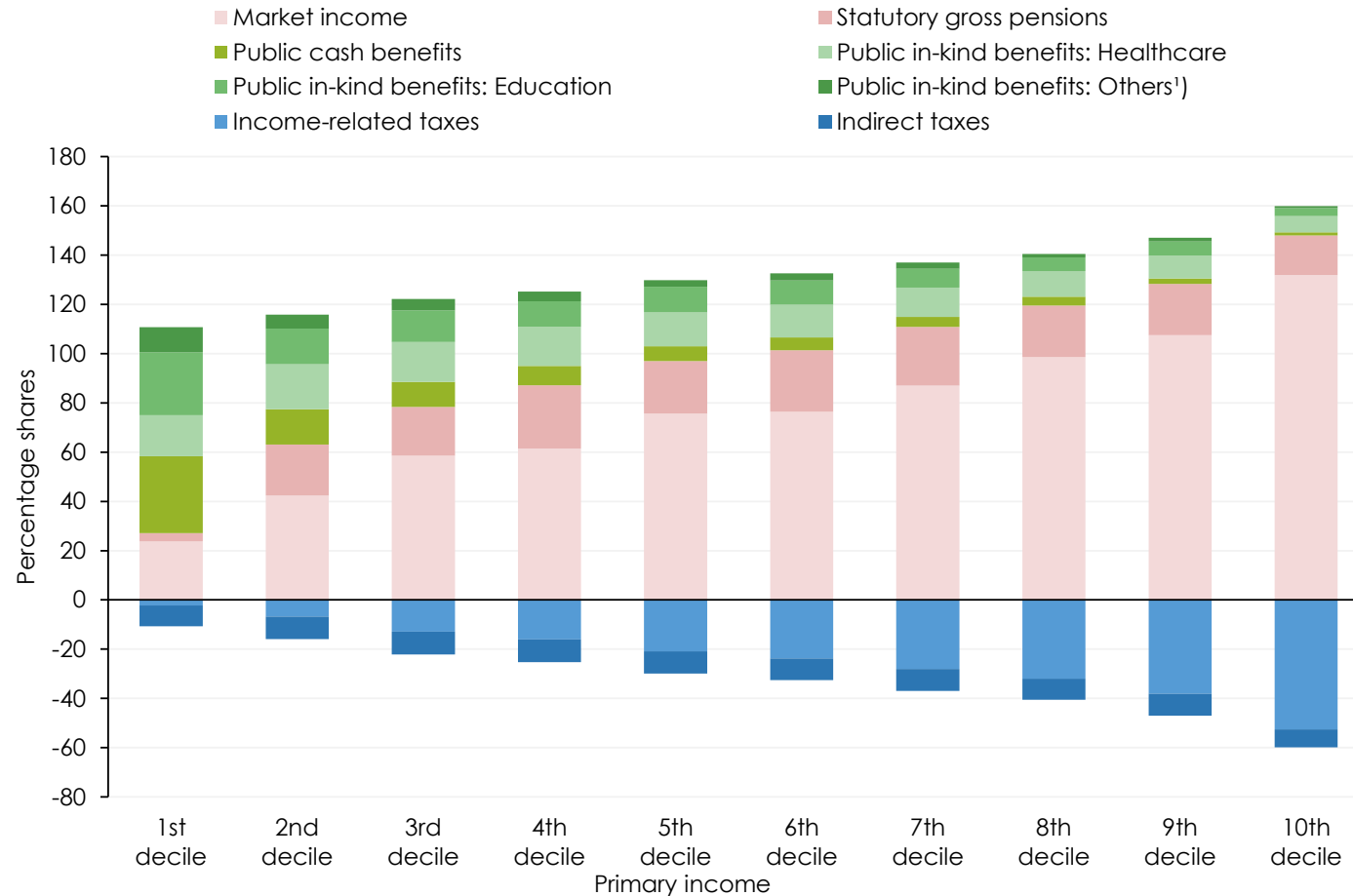
## Quantiles of equivalent primary income



S: Redistribution by the state in Austria 2019 (Rocha-Akis et al., 2023). – <sup>1)</sup> Income from letting and leasing, interest and dividends.

# Components of secondary income by income group, 2019

Quantiles of equivalent primary income



S: Redistribution by the state in Austria 2019 (Rocha-Akis et al., 2023). – <sup>1)</sup> Others: Family, housing, unemployment.

## Extent of redistribution, 2019

	<b>Gini coefficient</b>	<b>S90/S10</b>
Market income	0.466	125
+ Statutory gross pensions		
Primary income	0.353	17
+ Public cash benefits		
Total gross income	0.315	9
– Income-related taxes		
Disposable income	0.261	6
+ Public in-kind benefits		
Extended income	0.205	4
– Indirect taxes		
Secondary income	0.213	4

S: Redistribution by the state in Austria 2019 (Rocha-Akis et al., 2023).

## Poverty-reducing effect, 2019

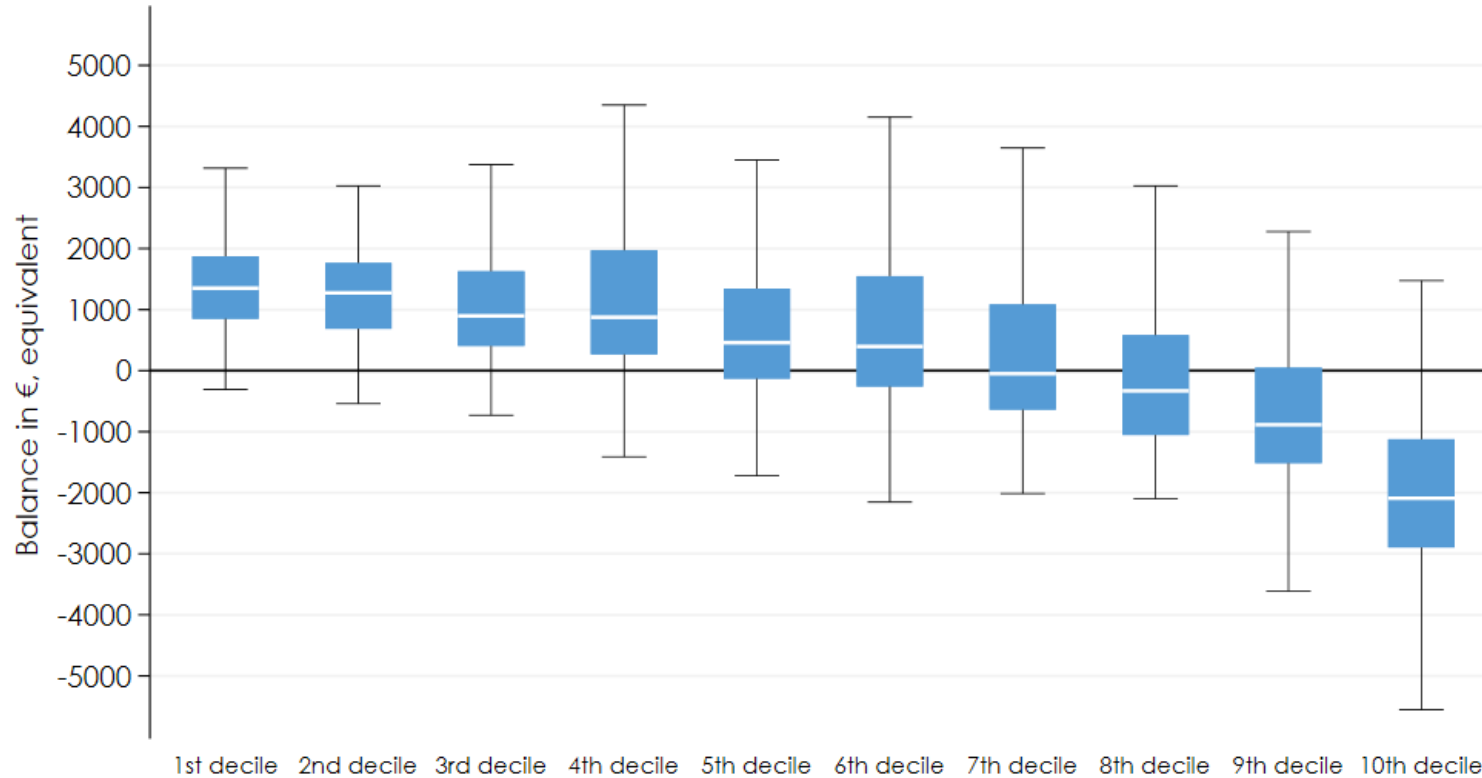
<b>Income definition</b>	<b>AROP rate in % (60% median income)</b>
Factor income	34.4
Market income excluding imputed rents	34.4
Market income	33.7
Primary income	21.8
Total gross income	19.0
Disposable income	13.9

S: Redistribution by the state in Austria 2019 (Rocha-Akis et al., 2023).



# Balance from public cash and non-cash benefits (including pensions), direct and indirect levies, 2019

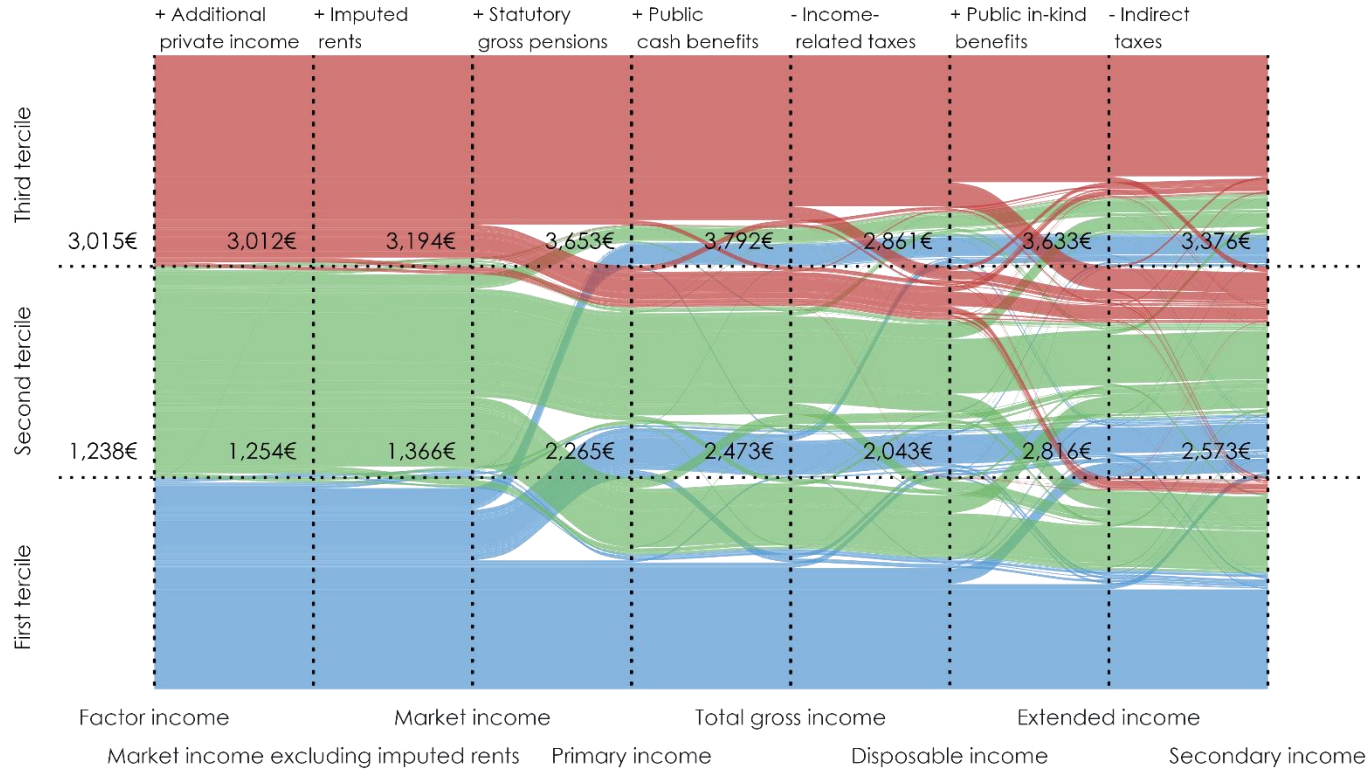
Quantiles of equivalent primary income



S: Redistribution by the state in Austria 2019 (Rocha-Akis et al., 2023).

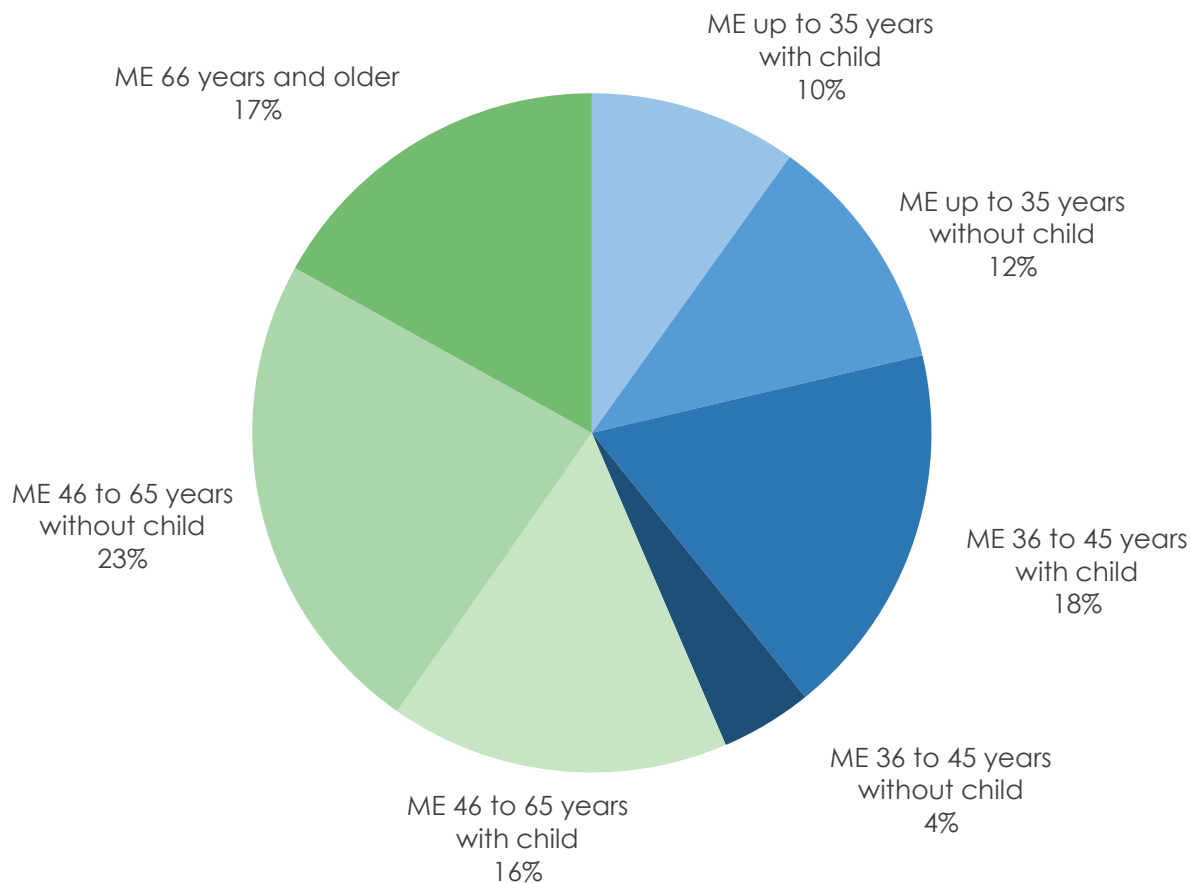
# Redistribution-driven mobility in the income hierarchy, 2019

Quantiles of equivalent primary income



S: Redistribution by the state in Austria 2019 (Rocha-Akis et al., 2023).

# Composition of the population by household type, 2019



S: Redistribution by the state in Austria 2019 (Rocha-Akis et al., 2023). – ME... main earner.

# Composition of the population in private households by household type over time

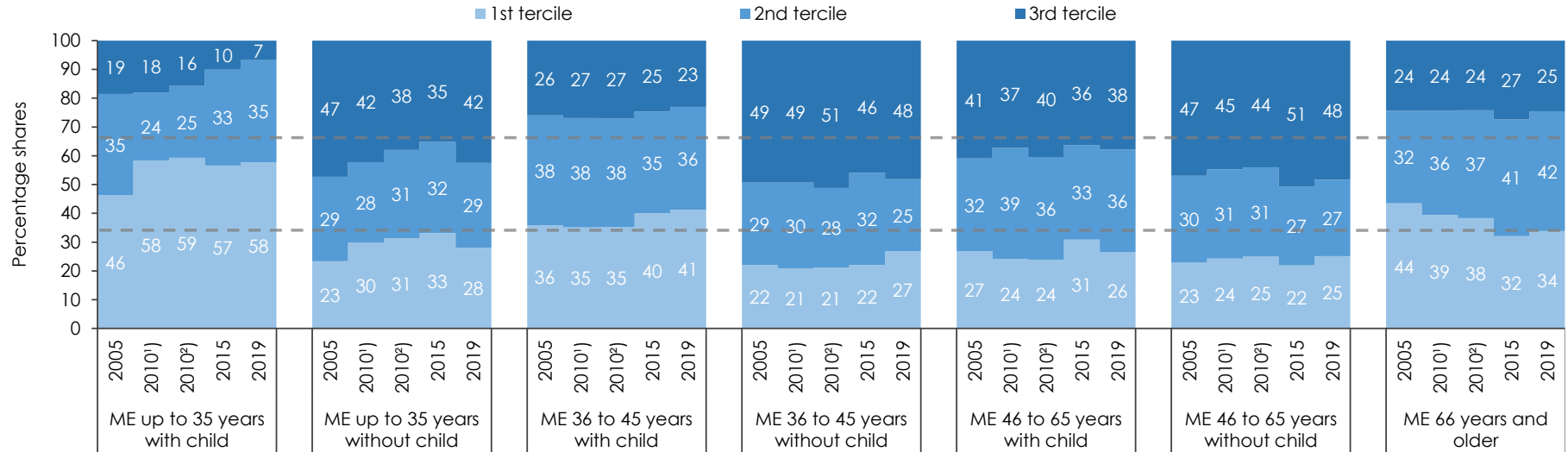
	2005	2010 <sup>1)</sup>	2010 <sup>2)</sup>	2015	2019	Difference 2005-2019
	Percentage shares					Percentage points
ME up to 35 years with child	<b>16.7</b>	11.9	11.4	11.2	<b>9.9</b>	-6.8
ME up to 35 years without child	7.4	8.7	8.8	10.2	11.4	+3.0
ME 36 to 45 years with child	22.7	20.1	20.5	16.6	17.9	-4.8
ME 36 to 45 years without child	5.1	5.7	5.6	4.8	4.4	-0.7
ME 46 to 65 years with child	16.9	16.5	17.0	18.1	16.2	-0.7
ME 46 to 65 years	<b>16.7</b>	20.3	20.2	21.6	<b>23.3</b>	+6.6
ME 66 years and older	14.4	16.8	16.6	17.6	16.9	+2.5
All households	100	100	100	100	100	

S: Redistribution by the state in Austria 2019 (Rocha-Akis et al., 2023). – ME... main earner. – <sup>1)</sup> EU-SILC 2011 with survey data.

<sup>2)</sup> EU-SILC 2011 with administrative data.

# Population shares by income group and household type

Quantiles of equivalent **primary** income

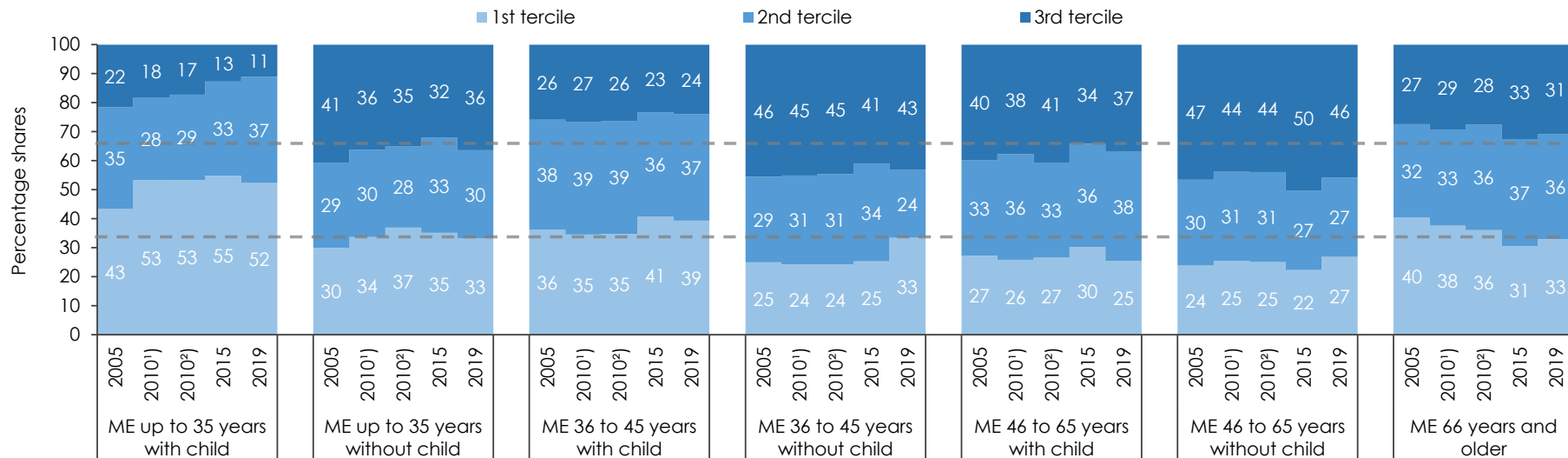


S: Redistribution by the state in Austria 2019 (Rocha-Akis et al., 2023). – ME... main earner. – <sup>1)</sup> EU-SILC 2011 with survey data.

<sup>2)</sup> EU-SILC 2011 with administrative data.

# Population shares by income group and household type

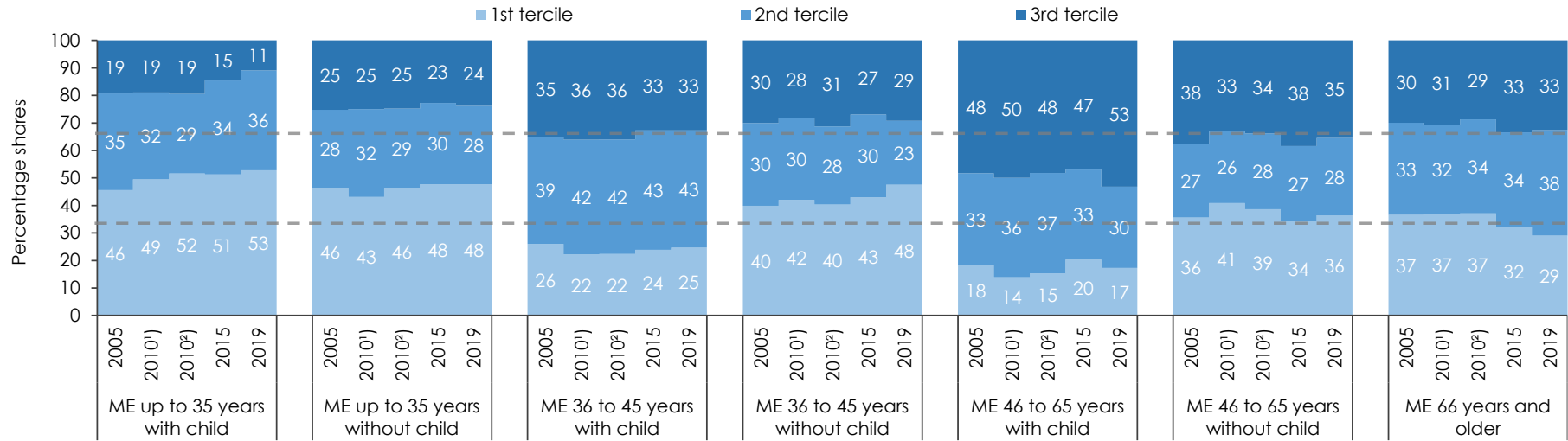
Quantiles of equivalent **disposable** income



S: Redistribution by the state in Austria 2019 (Rocha-Akis et al., 2023). – ME... main earner. – <sup>1)</sup> EU-SILC 2011 with survey data.  
<sup>2)</sup> EU-SILC 2011 with administrative data.

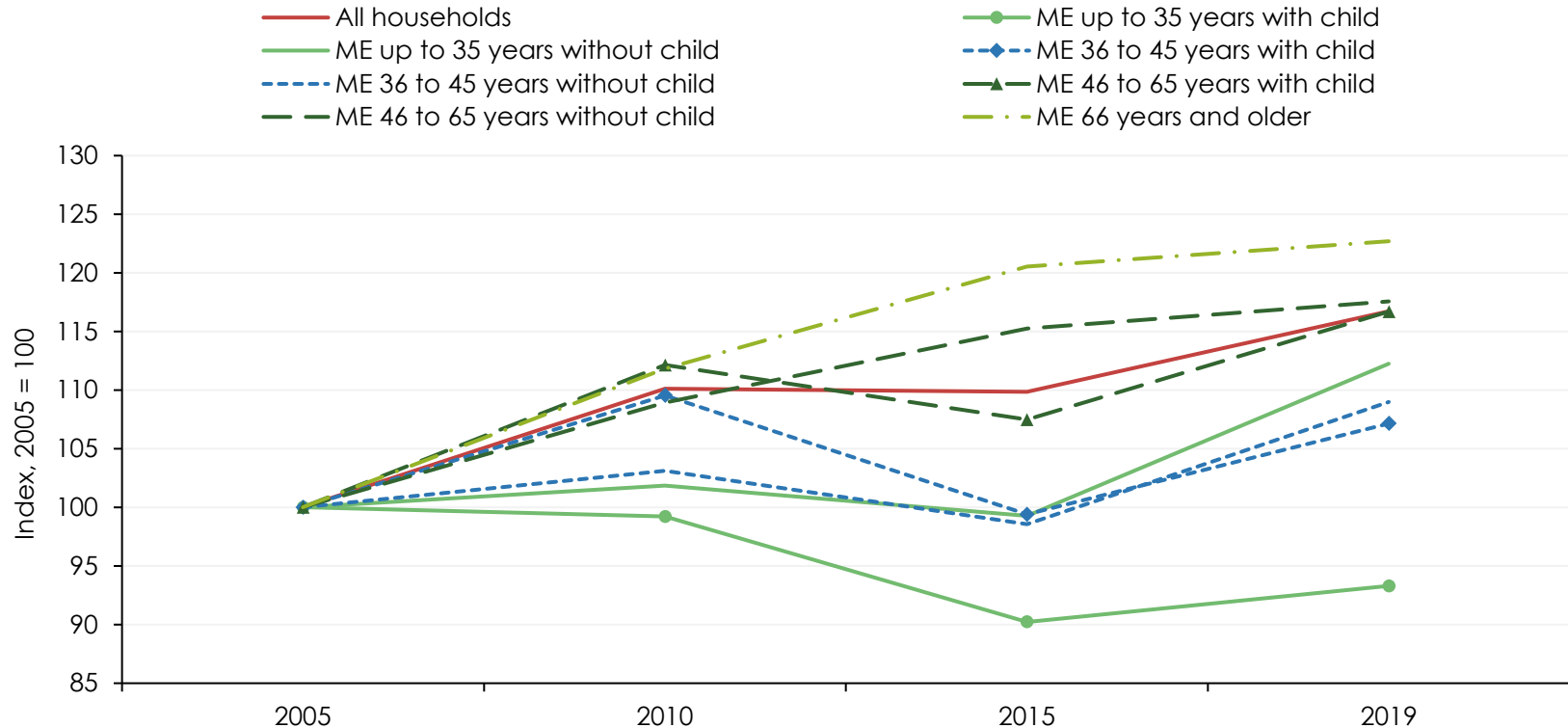
# Population shares by income group and household type

## Quantiles of equivalent **secondary** income



S: Redistribution by the state in Austria 2019 (Rocha-Akis et al., 2023). – ME... main earner. – <sup>1)</sup> EU-SILC 2011 with survey data.  
<sup>2)</sup> EU-SILC 2011 with administrative data.

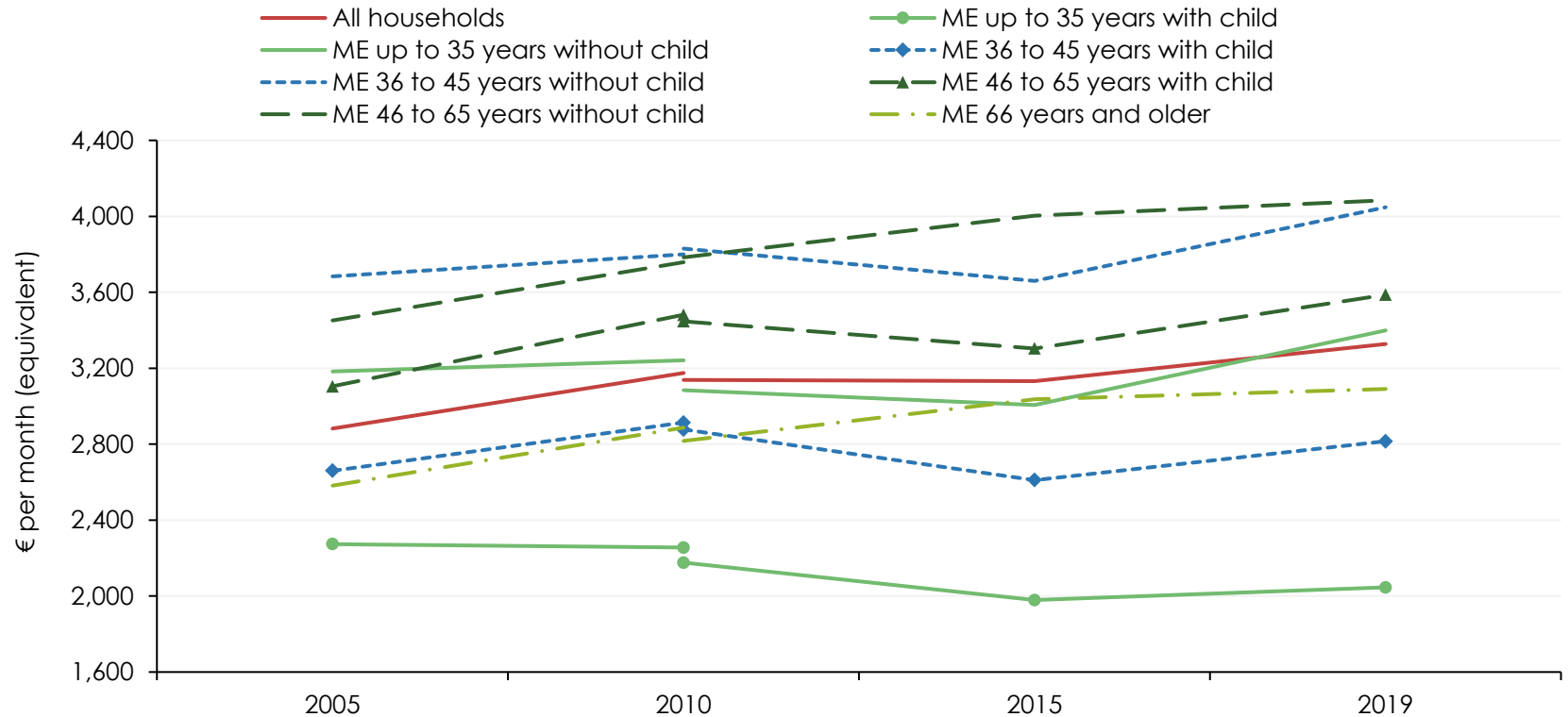
# Divergence in the development of real average primary income by household type



S: Redistribution by the state in Austria 2019 (Rocha-Akis et al., 2023). – ME... main earner.

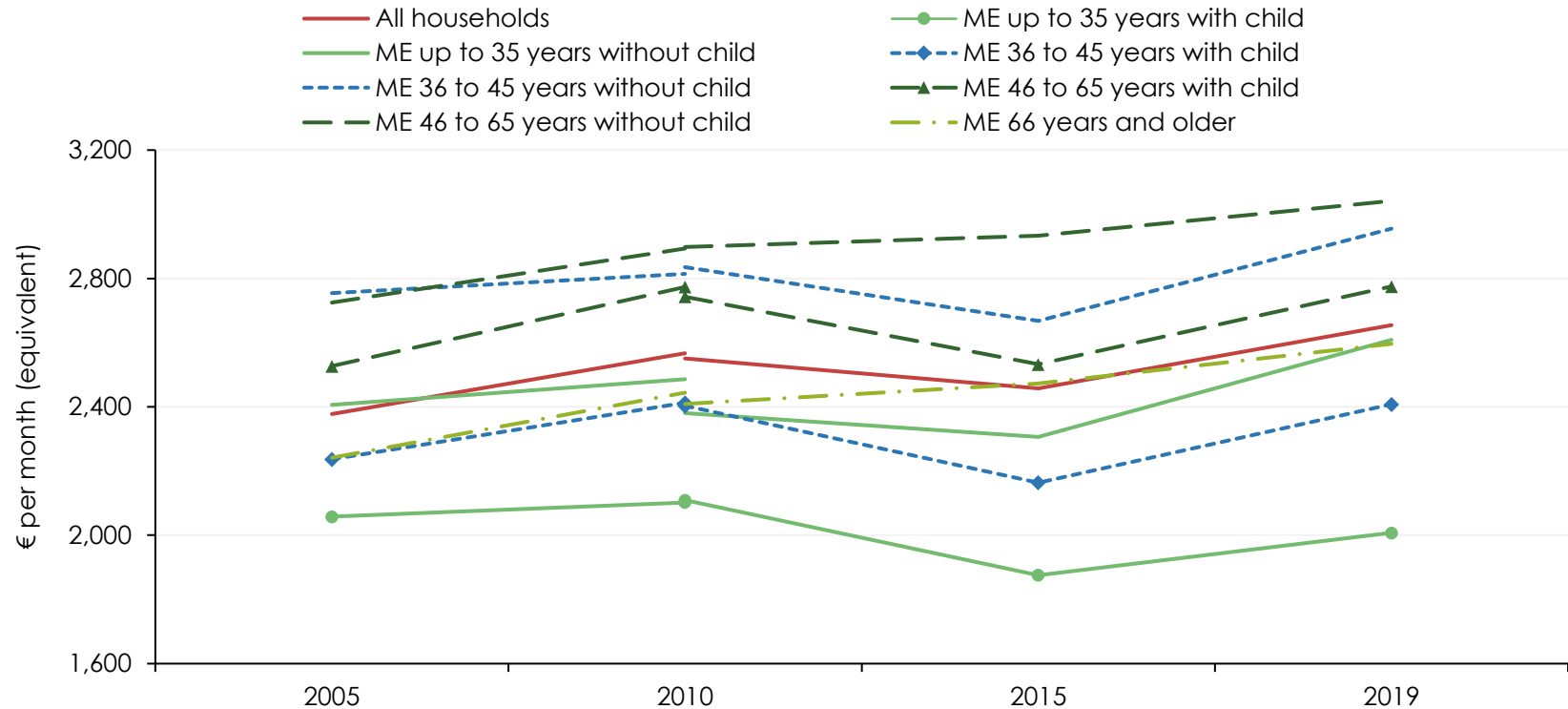


# Evolution of real average primary income by household type



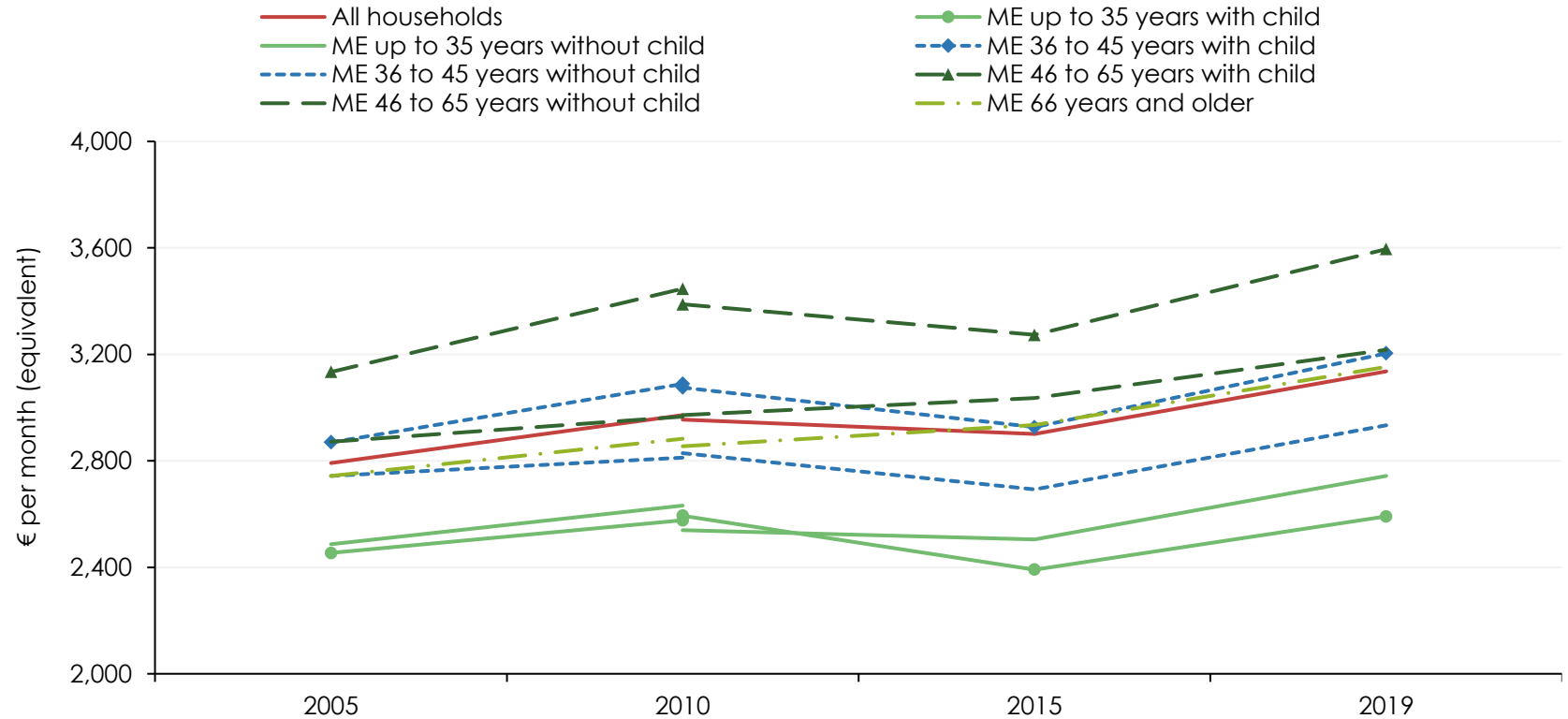
S: Redistribution by the state in Austria 2019 (Rocha-Akis et al., 2023). – ME... main earner.

# Evolution of average real disposable income by household type



S: Redistribution by the state in Austria 2019 (Rocha-Akis et al., 2023). – ME... main earner.

# Evolution of average real secondary income by household type



S: Redistribution by the state in Austria 2019 (Rocha-Akis et al., 2023). – ME... main earner.

# Overview of the income components

Income component	Income type	Data source <sup>1)</sup>
<i>Primary income</i>		
Employees, freelancers, sick pay	Factor income	EU-SILC (administrative data and survey)
Military service, civilian service	Factor income	EU-SILC (administrative data)
Income of persons up to 15 years of age	Factor income	EU-SILC (administrative data)
Self-employed persons, contract workers	Factor income	EU-SILC (survey)
Withdrawals	Factor income	EU-SILC (survey)
Income from letting and lease	Factor income	EU-SILC (survey)
Interest, dividends	Factor income	Matching EU-SILC/HFCS; 2005: EU-SILC (survey)
Pensions from private schemes	Additional private income	EU-SILC (survey)
Private health services	Additional private income	EU-SILC (survey)
Private accident benefits	Additional private income	EU-SILC (survey)
Private transfer received and given	Additional private income	EU-SILC (survey)
Imputed rents minus loan interest payments	Imputed rents	EU-SILC (calculations by Statistik Austria); 2005: no data available
Statutory gross pensions (old-age pension, disability benefits, survivors' benefits, non-contributory pension (Ausgleichszulage))	Statutory gross pensions	EU-SILC (by survey)

S: WIFO. – <sup>1)</sup> The EU-SILC-related references apply to EU-SILC 2011 (administrative data), EU-SILC 2016 and EU-SILC 2020. In EU-SILC 2006 and EU-SILC 2011 (survey), all components were collected by survey.

# Overview of the income components

Income component	Income type	Data source <sup>1)</sup>
<i>Unemployment benefits and benefits against social exclusion</i>		
Unemployment benefits (including transitional allowance)	Public cash benefits (insurance principle)	EU-SILC (administrative data)
Emergency assistance	Public cash benefits (insurance principle)	EU-SILC (administrative data)
Sickness benefit in the event of unemployment	Public cash benefits (insurance principle)	EU-SILC (administrative data)
Aid to cover living expenses	Public cash benefits (insurance principle)	EU-SILC (administrative data)
Educational services from unemployment insurance	Public cash benefits (insurance principle)	EU-SILC (administrative data)
Means-tested minimum income, social assistance	Public cash benefits (welfare principle)	EU-SILC (survey)
Active labour market policy	Public in-kind benefits	Federal Ministry of Labour and Economy (ELIS), AMS-DWH

S: WIFO. – <sup>1)</sup> The EU-SILC-related references apply to EU-SILC 2011 (administrative data), EU-SILC 2016 and EU-SILC 2020. In EU-SILC 2006 and EU-SILC 2011 (survey), all components were collected by survey.

# Overview of the income components

Income component	Income type	Data source <sup>1)</sup>
<i>Family benefits</i>		
Childcare allowance	Public cash benefits (provision principle)	EU-SILC (administrative data)
Weekly allowance	Public cash benefits (provision principle)	EU-SILC (administrative data)
State maintenance advances	Public cash benefits (provision principle)	EU-SILC (survey)
Family allowance (including debt allowance), child deduction	Public cash benefits (provision principle)	WIFO-Micromod
Other family benefits	Public cash benefits (provision principle)	EU-SILC (survey)
Sole-earner deduction	Tax benefits	WIFO-Micromod
Single parent deduction	Tax benefits	WIFO-Micromod
Child allowance	Tax benefits	WIFO-Micromod
Childcare cost allowance	Tax benefits	WIFO-Micromod
Family bonus	Tax benefits	WIFO-Micromod
Additional child allowance	Tax benefits	WIFO-Micromod
Maintenance deduction	Tax benefits	WIFO-Micromod
Maintenance deduction amount	Tax benefits	WIFO-Micromod
Institutional childcare	Public in-kind benefits	Day-care centre statistics
School books	Public in-kind benefits	Federal financial statements
Free travel for students and apprentices	Public in-kind benefits	Federal financial statements

S: WIFO. – <sup>1)</sup> The EU-SILC-related references apply to EU-SILC 2011 (administrative data), EU-SILC 2016 and EU-SILC 2020. In EU-SILC 2006 and EU-SILC 2011 (survey), all components were collected by survey.

# Overview of the income components

Income component	Income type	Data source <sup>1)</sup>
<i>Education</i>		
Training-related benefits	Public cash benefits (welfare principle)	EU-SILC (administrative data and survey)
Education expenditure, pupils up to the age of 18	Public in-kind benefits	Education expenditure statistics
Education expenditure, apprentices	Public in-kind benefits	Education expenditure statistics
Education expenditure, students	Public in-kind benefits	Education expenditure statistics
<i>Healthcare</i>		
Accident pension	Public cash benefits (insurance principle)	EU-SILC (administrative data)
Care allowance	Public cash benefits (provision principle)	EU-SILC (administrative data)
Healthcare expenditure, inpatient and outpatient	Public in-kind benefits	Statistik Austria Health Expenditure, Gesundheit Österreich GmbH (GÖG); variant B: additional Austrian Health Survey 2014 and 2019
<i>Housing benefit</i>		
Housing benefit	Public cash benefits (welfare principle)	EU-SILC (survey)
<i>Rent and interest advantage</i>		
Rent advantage (subsidised housing)	Public in-kind benefits	WIFO calculations
Interest advantage (subsidised housing loans)	–	WIFO calculations

S: WIFO. – <sup>1)</sup> The EU-SILC-related references apply to EU-SILC 2011 (administrative data), EU-SILC 2016 and EU-SILC 2020. In EU-SILC 2006 and EU-SILC 2011 (survey), all components were collected by survey.