DATA APPENDIX

Trends in global inequality using a new integrated dataset

WIDER Working Paper 2021/61

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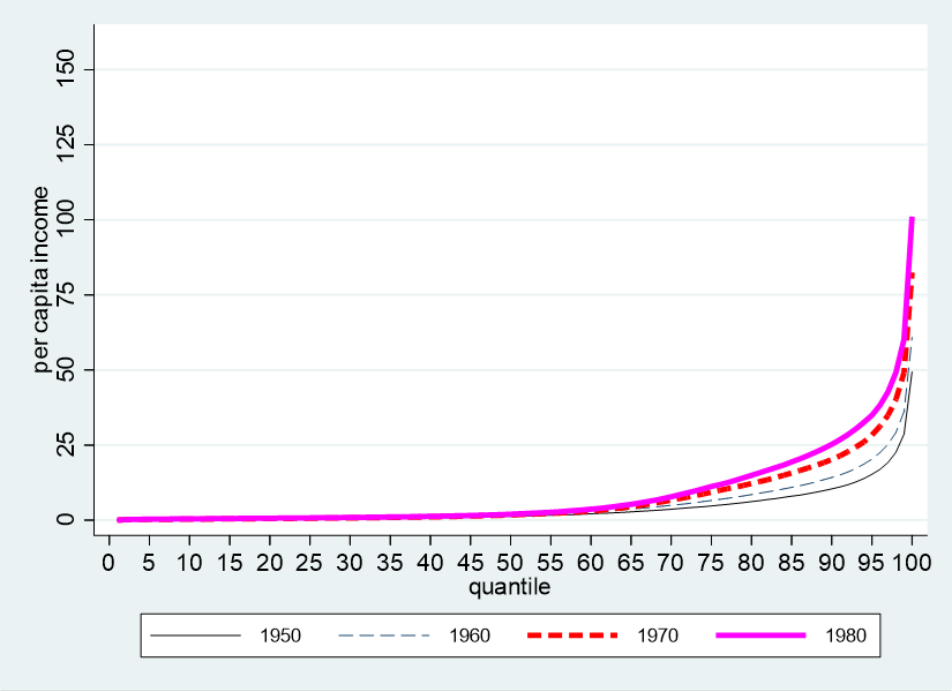
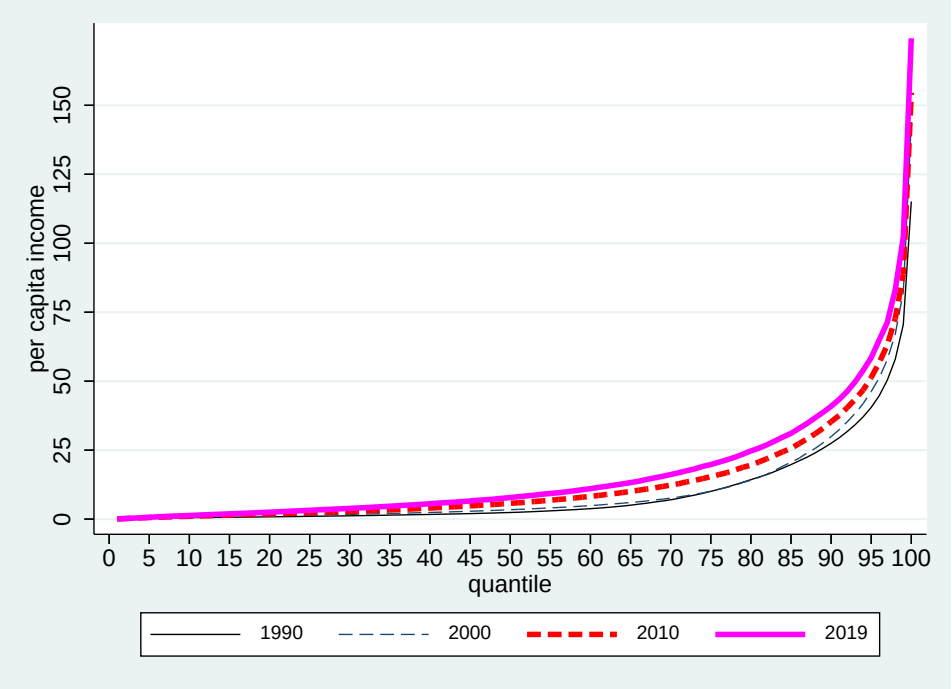
Appendix A: Quantile curves

Figure A1: Quantile curves in the global income distribution

a. 1950–80



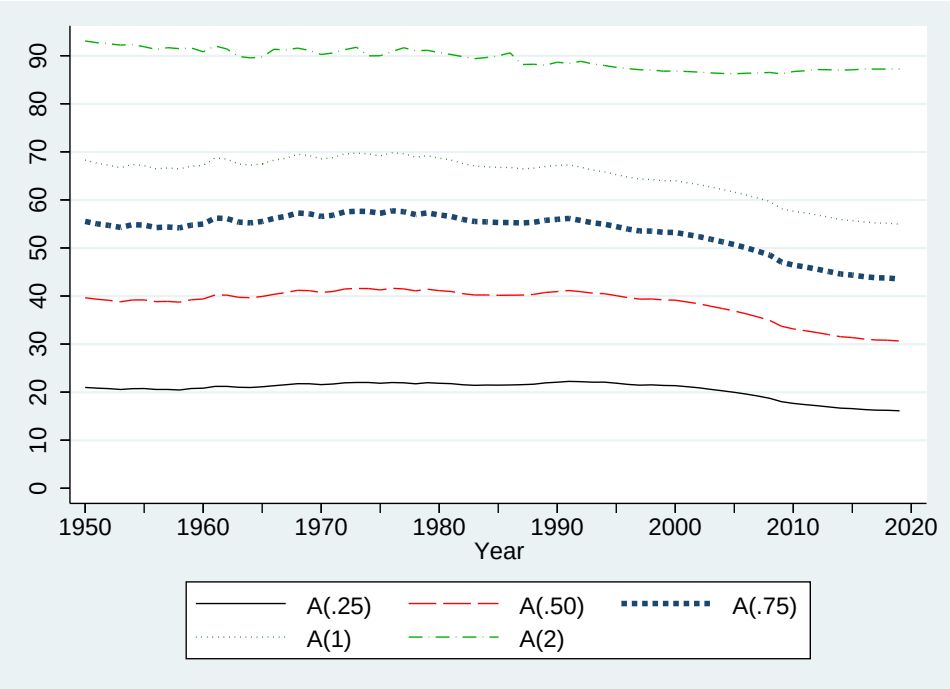
b. 1990–2019



Source: author's construction based on the WIID.

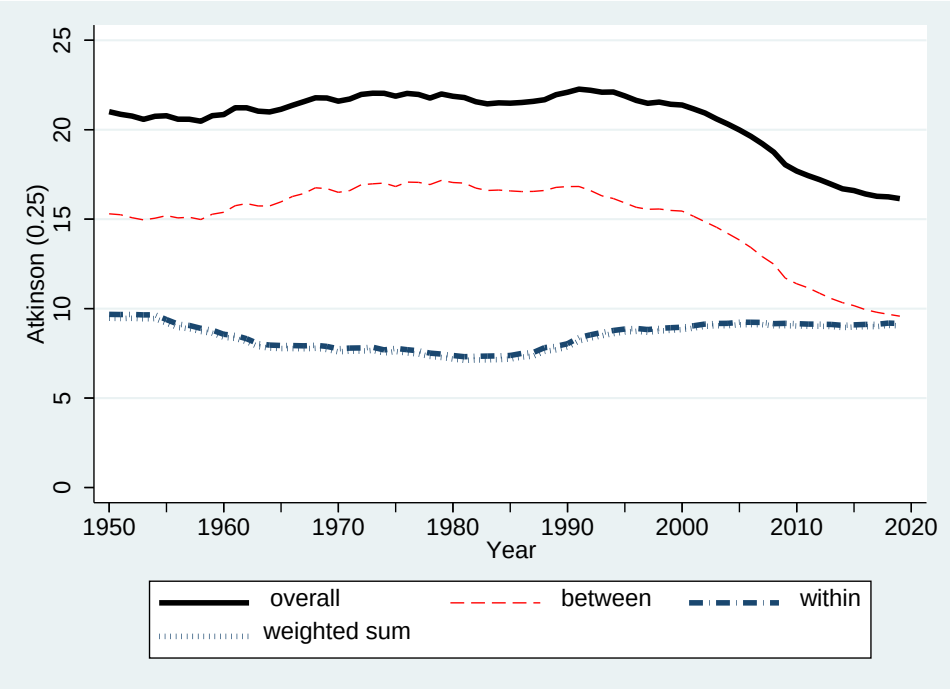
Appendix B: Global inequality, Atkinson family of measures

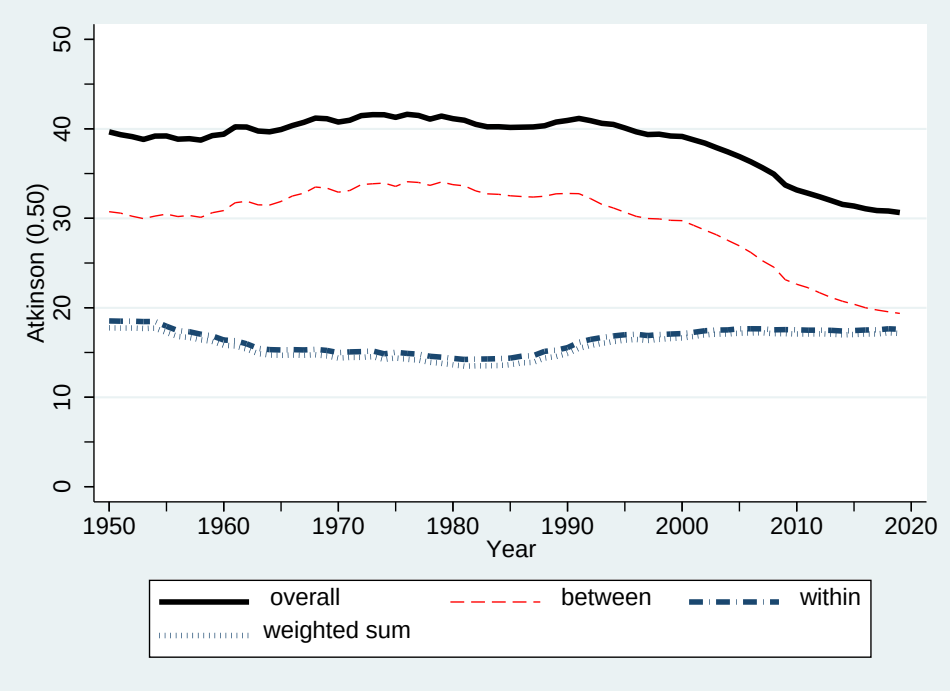
Figure B1: Relative measures of global income inequality, Atkinson family



Source: author's construction based on the WIID.

Figure B2: Inequality between and within countries, Atkinson family




Atkinson (0.50)
0
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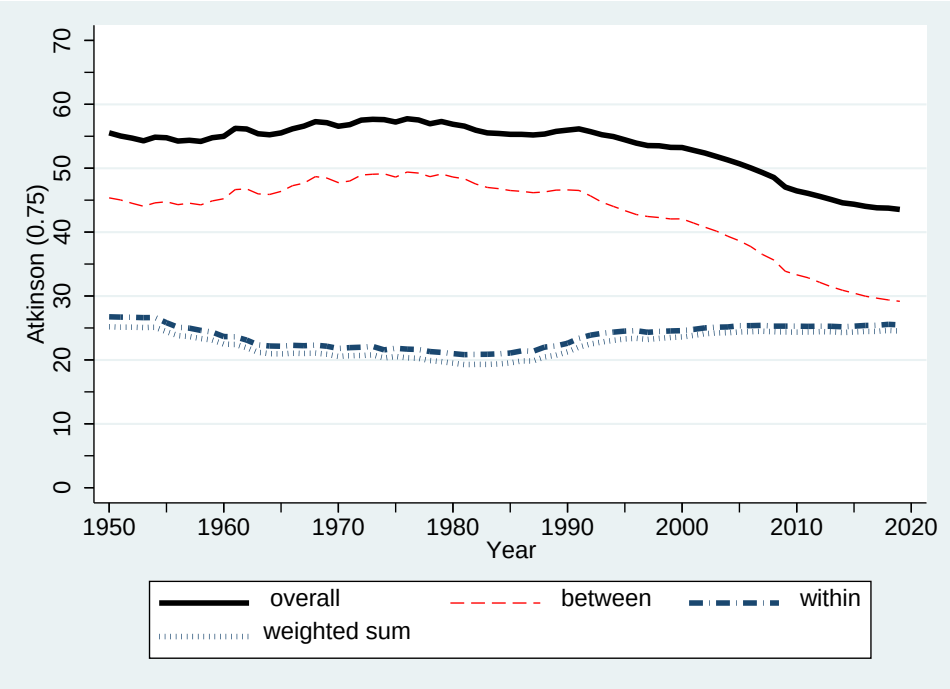
2000
2010
2020
Year
overall
between
within
weighted sum


Atkinson (0.75)
0
10
20
30
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50
60
70
1950
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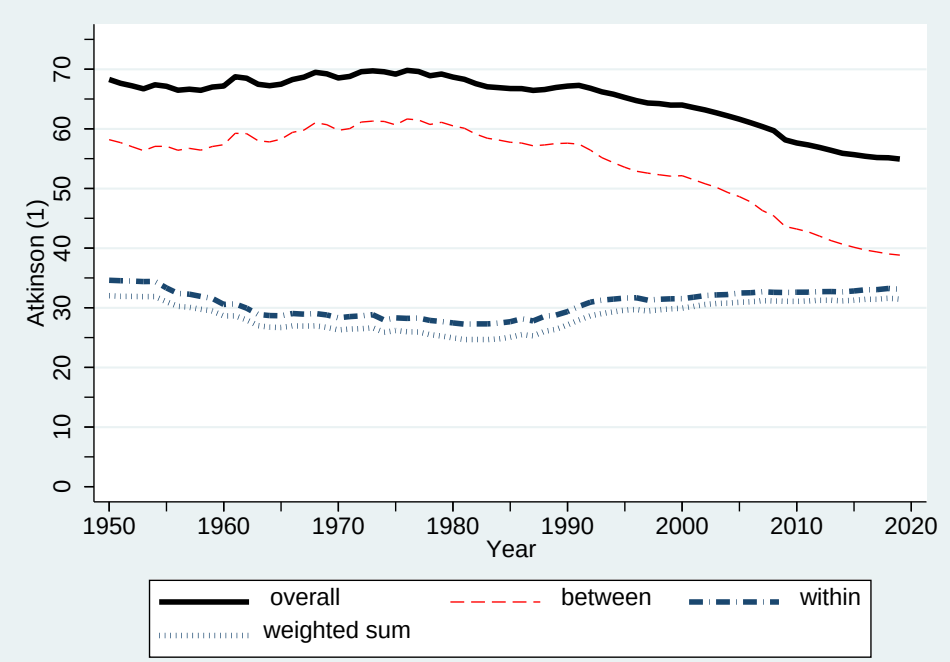
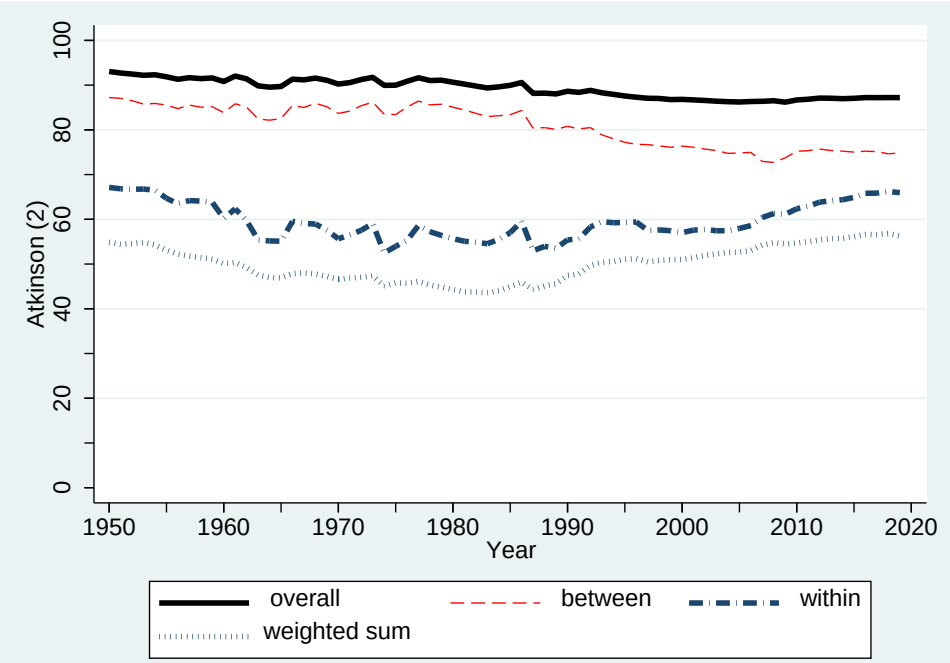
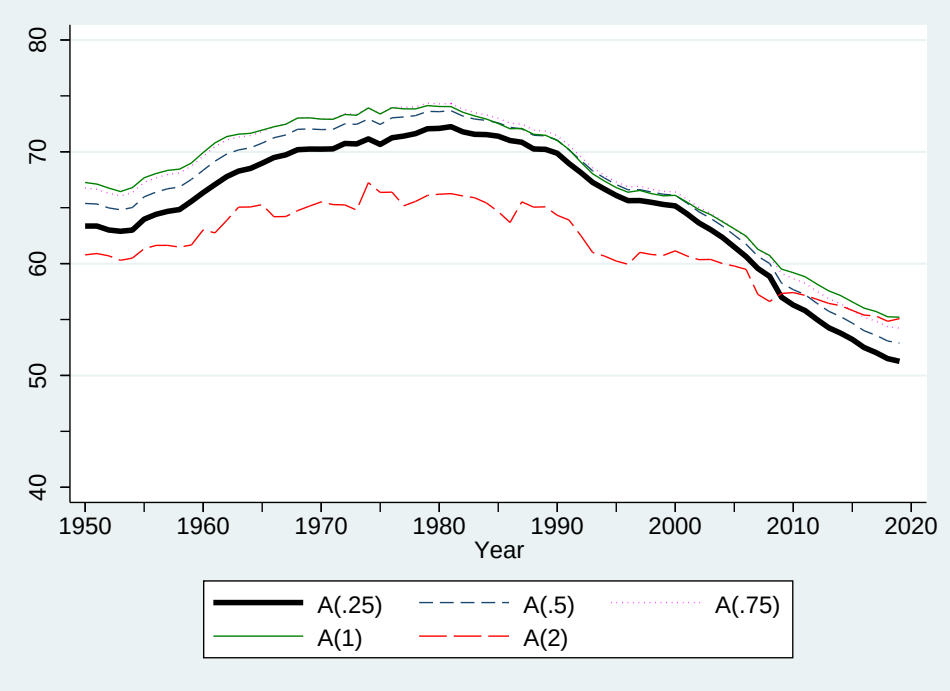
Year
overall
between
within
weighted sum





Source: author's construction based on the WIID.

Figure B3: Shapley between-country contribution, Atkinson family (%)

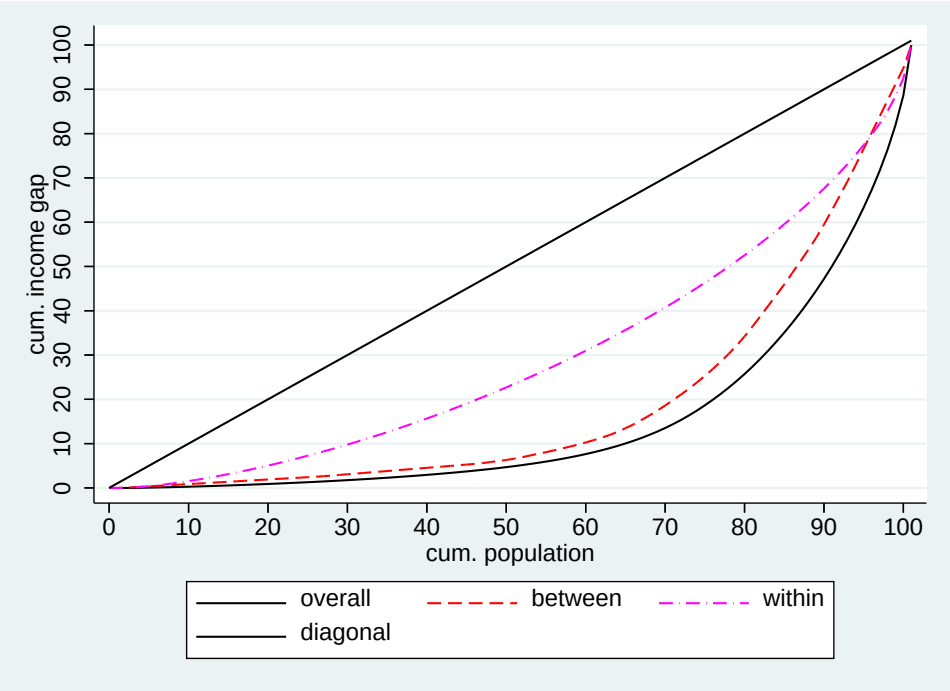


Source: author's construction based on the WIID.

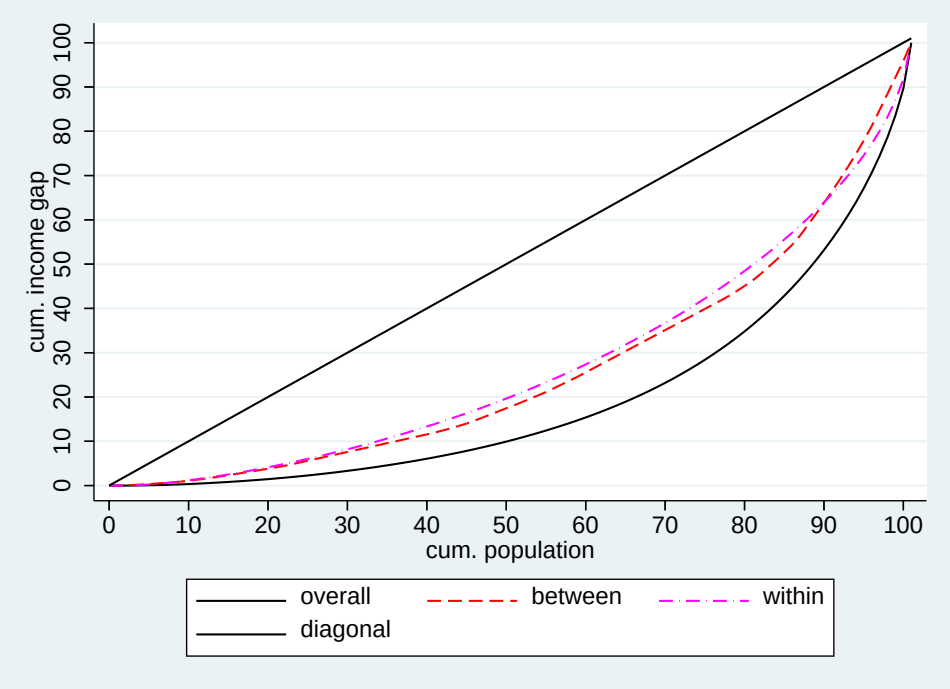
Appendix C: Relative Lorenz curves—between- and within-country distributions

Figure C1: Lorenz curves of between- and within-coutnry distributions, selected years

a. 1980



b. 2019

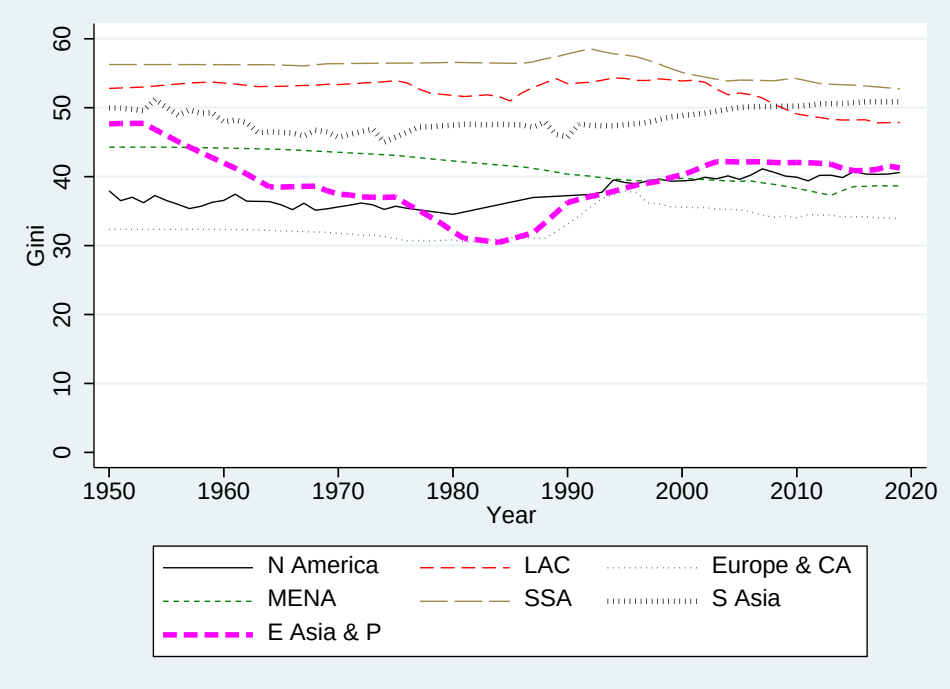


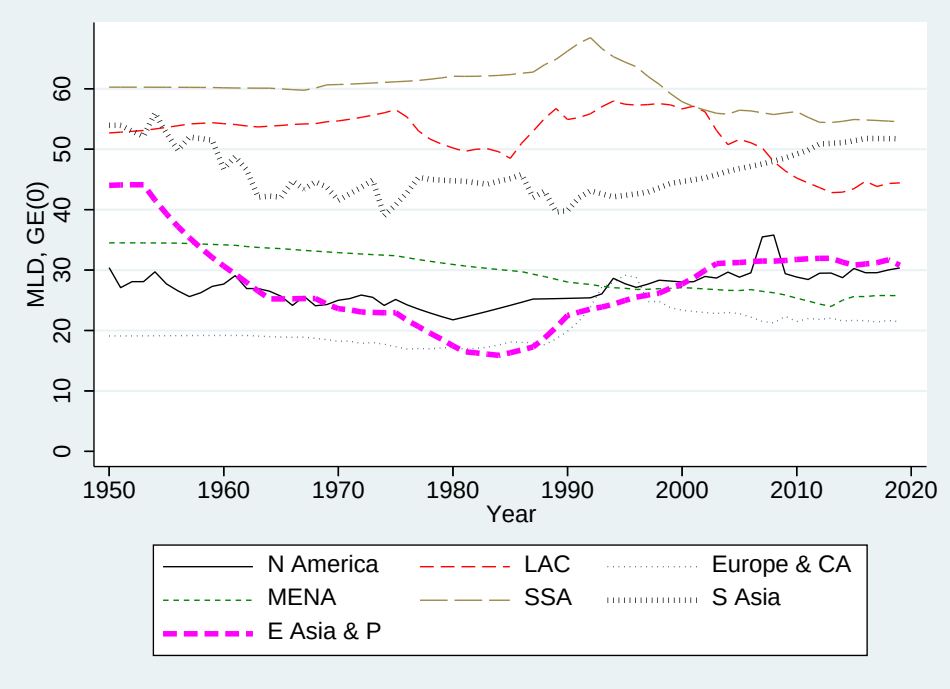
Source: author's construction based on the WIID.

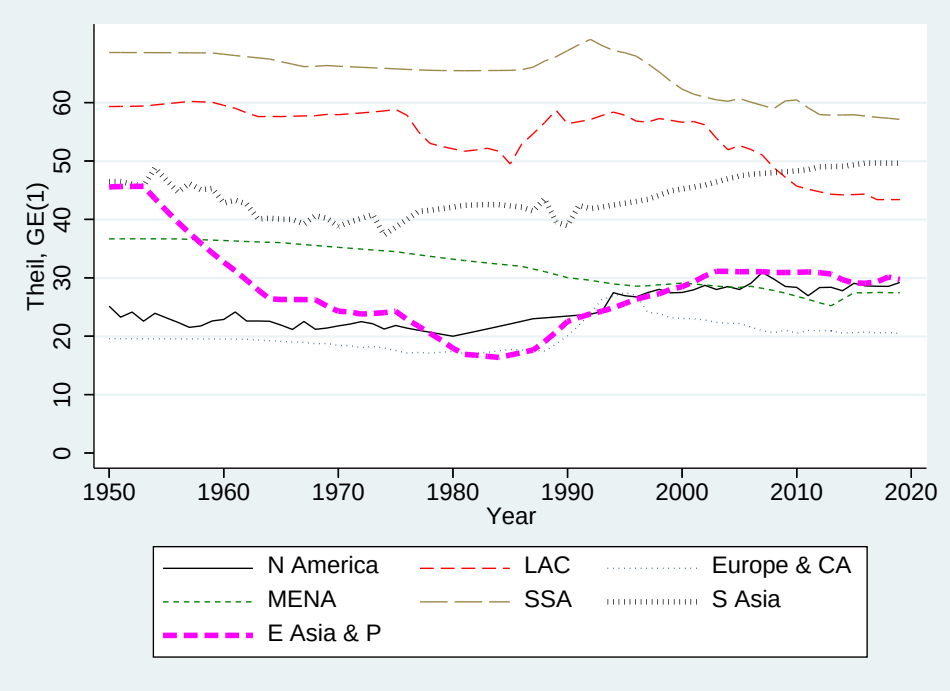
Appendix D: Within-country inequality by region and income group

Figure D1: Population-weighted average inequality by region and income group

a. By geographical region






Theil, GE(1)
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Europe & CA
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S Asia
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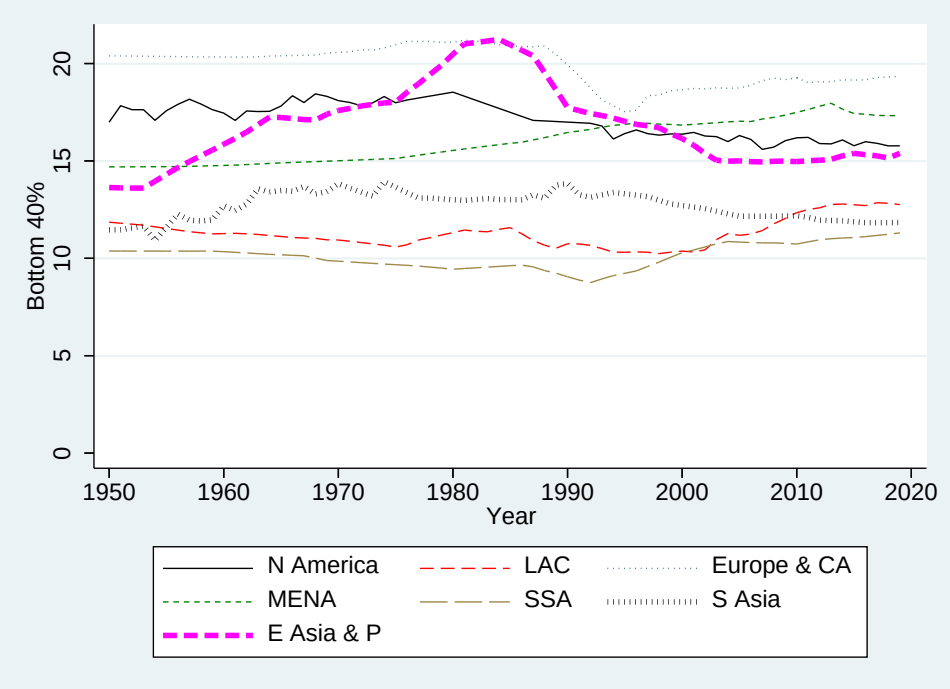
Bottom 40%
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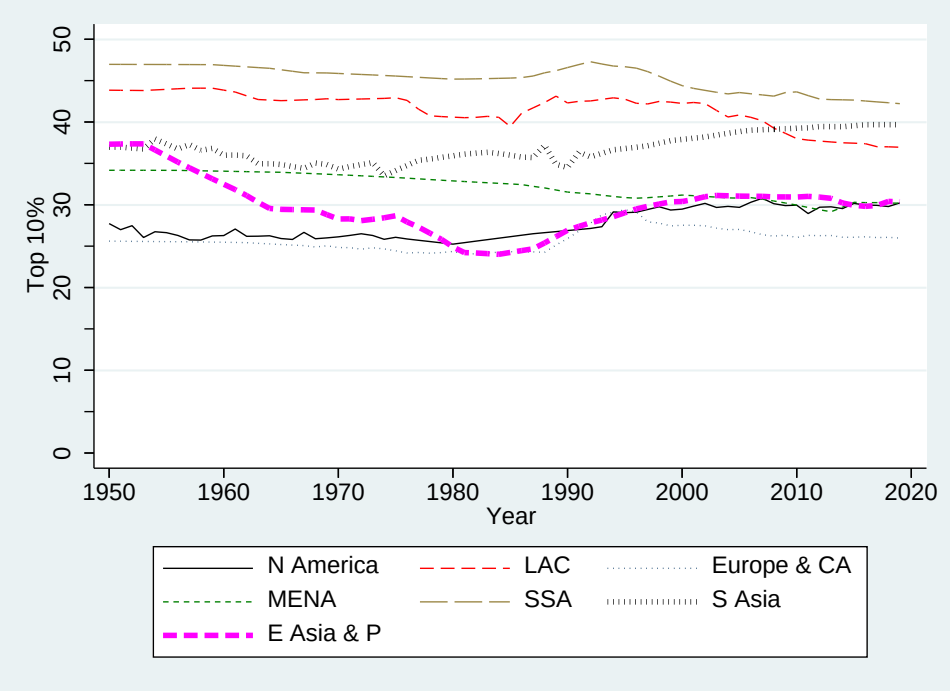
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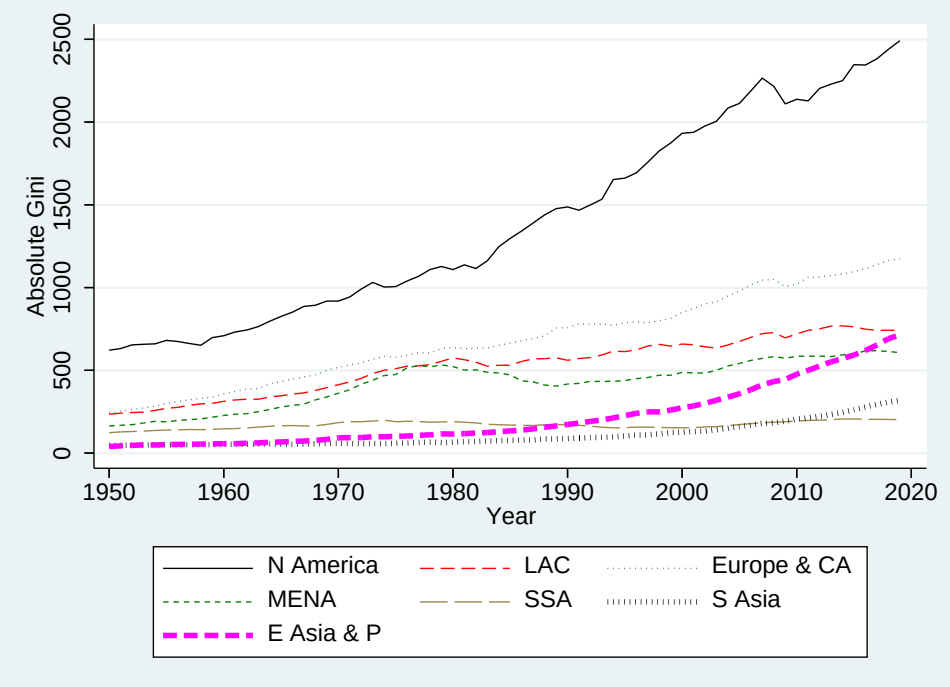
Absolute Gini
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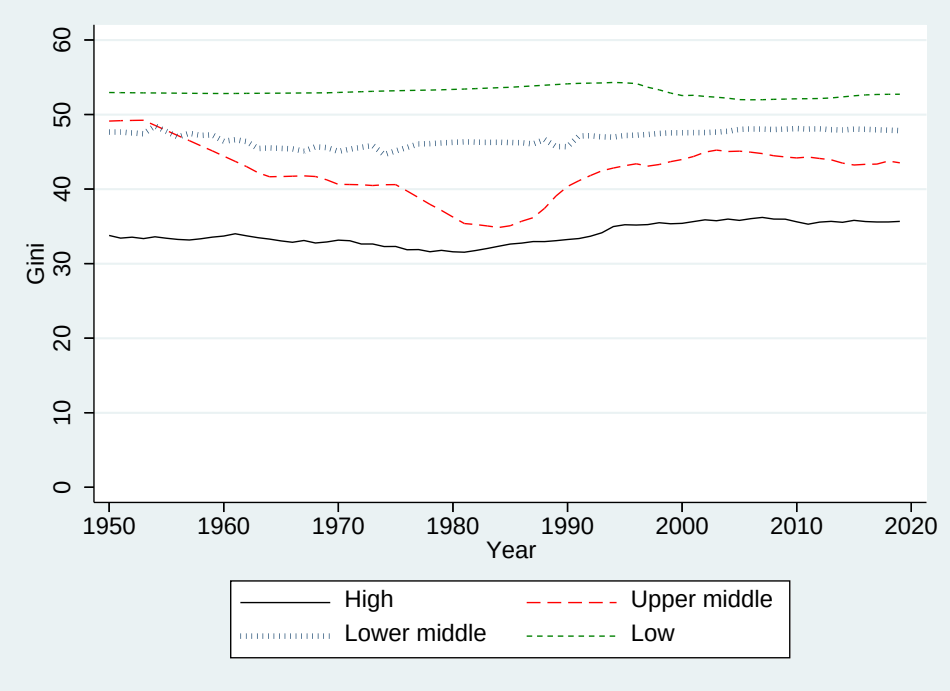
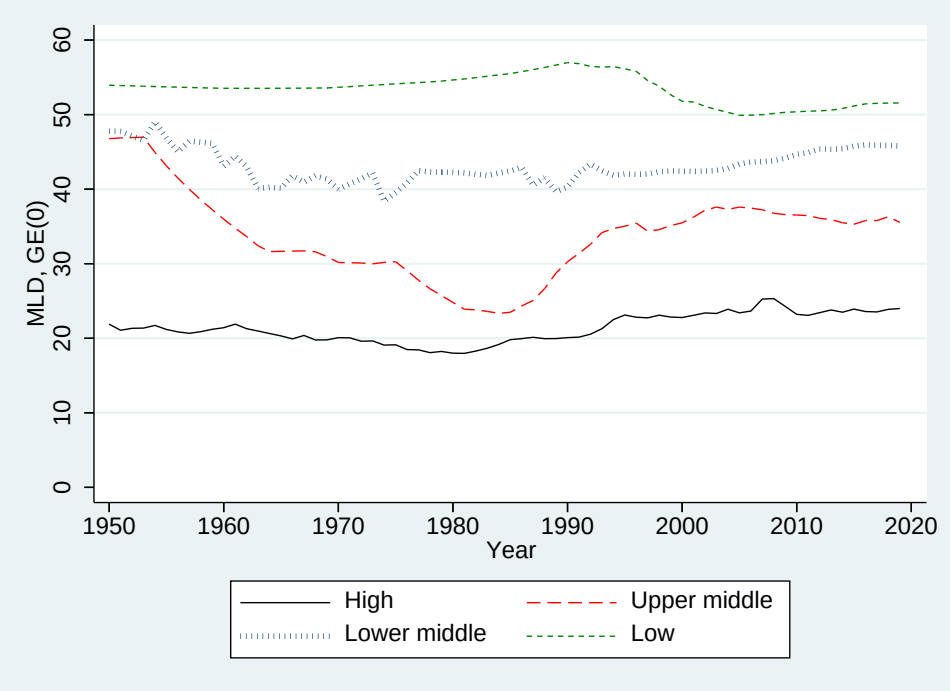
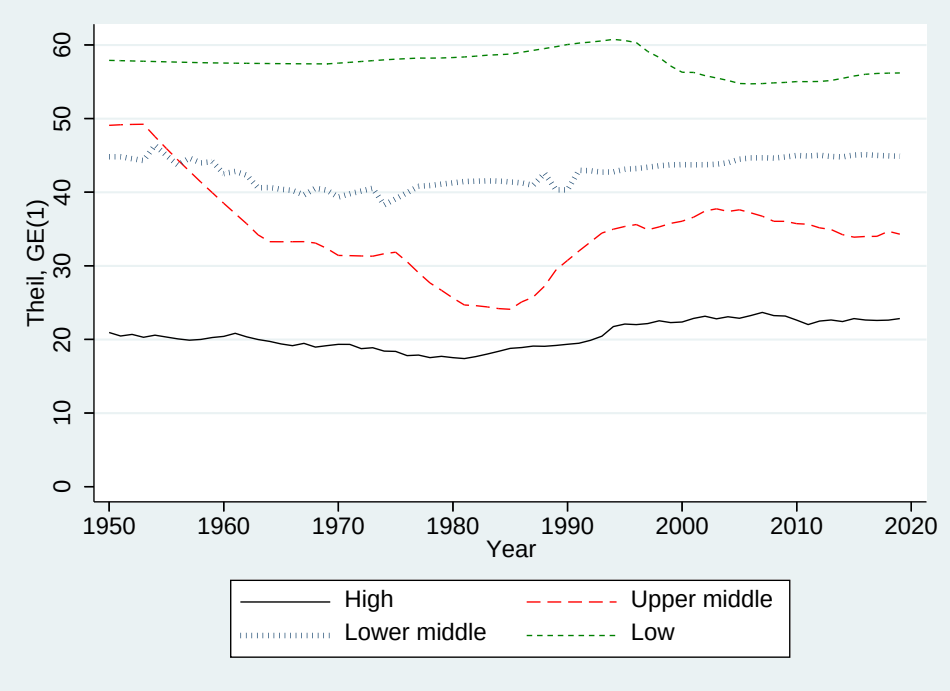
E Asia & P

b. By income group






Theil, GE(1)
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Upper middle
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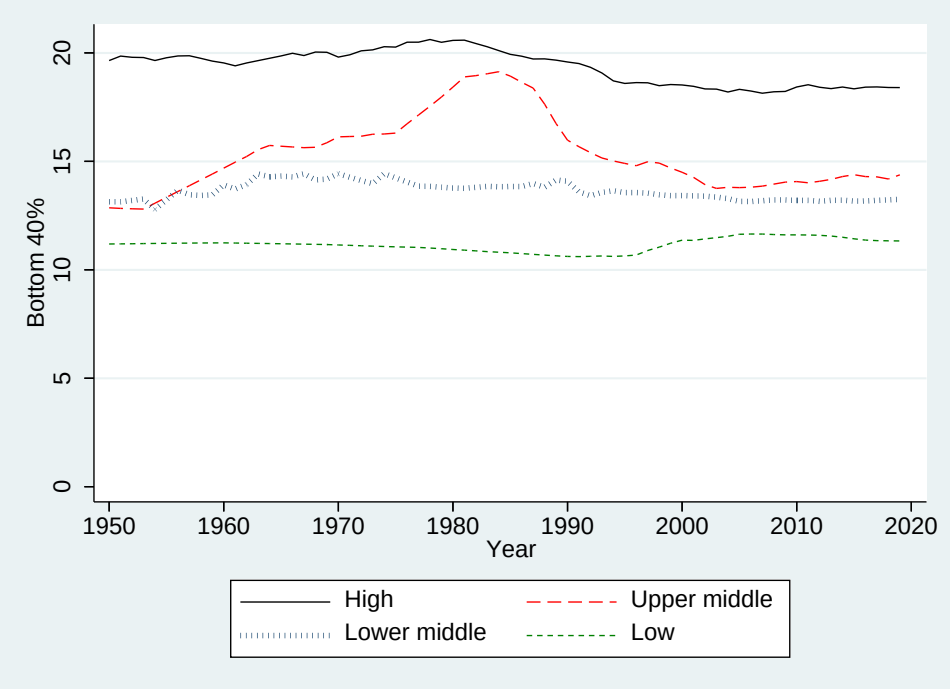
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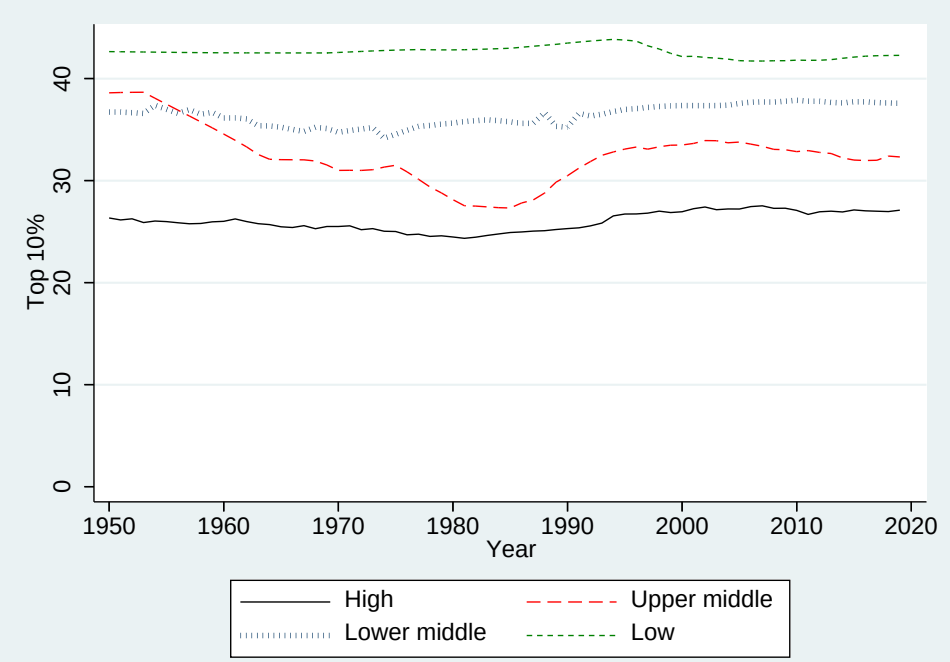
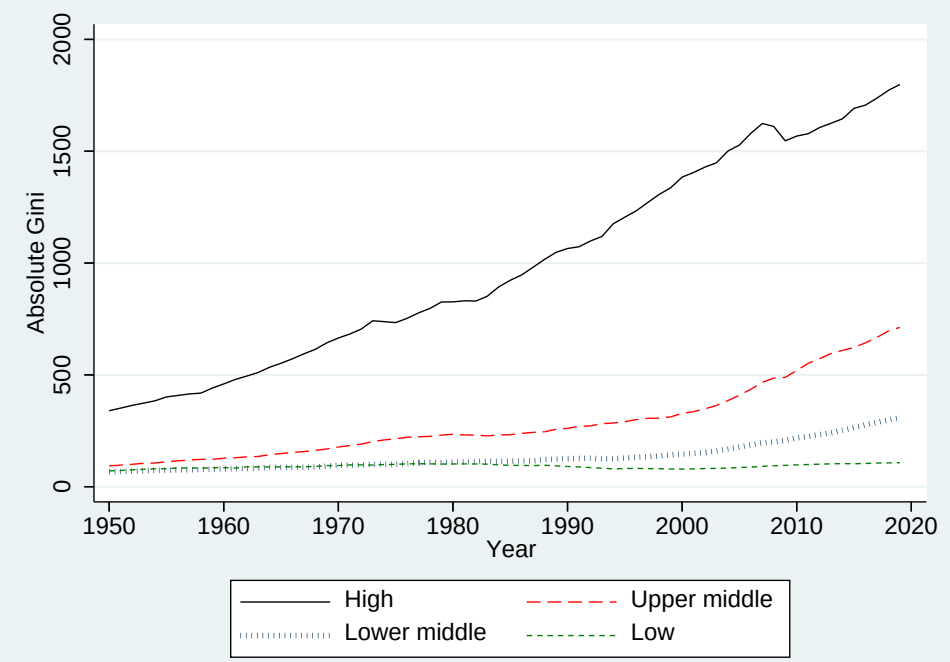
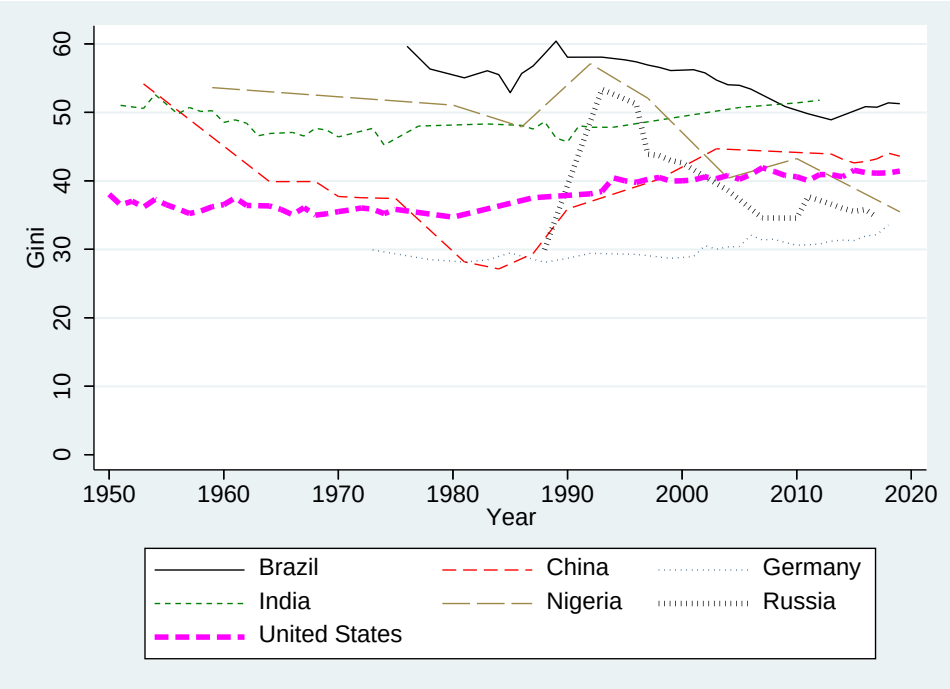


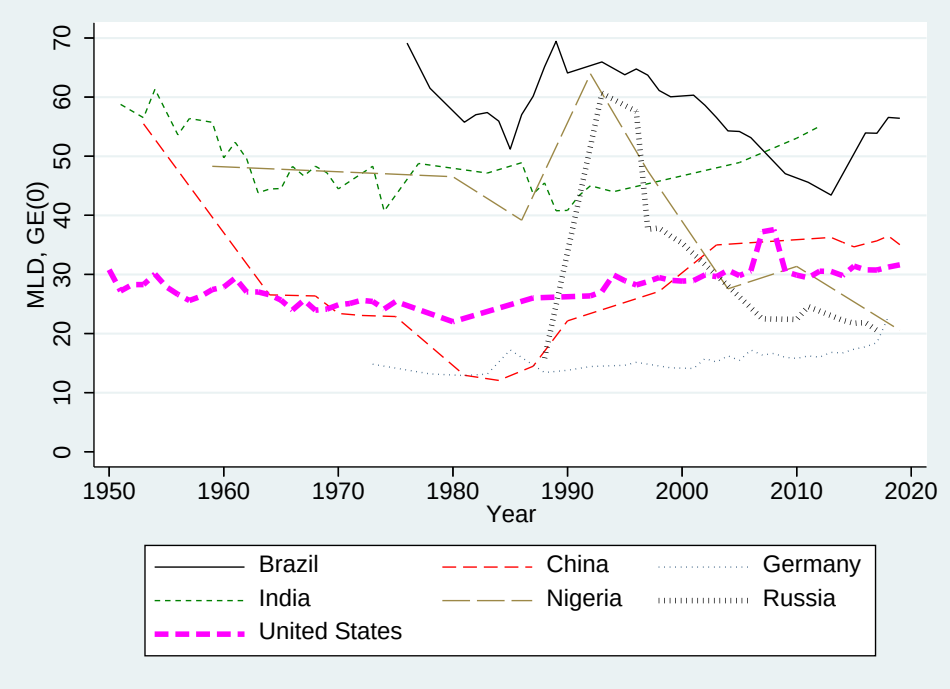


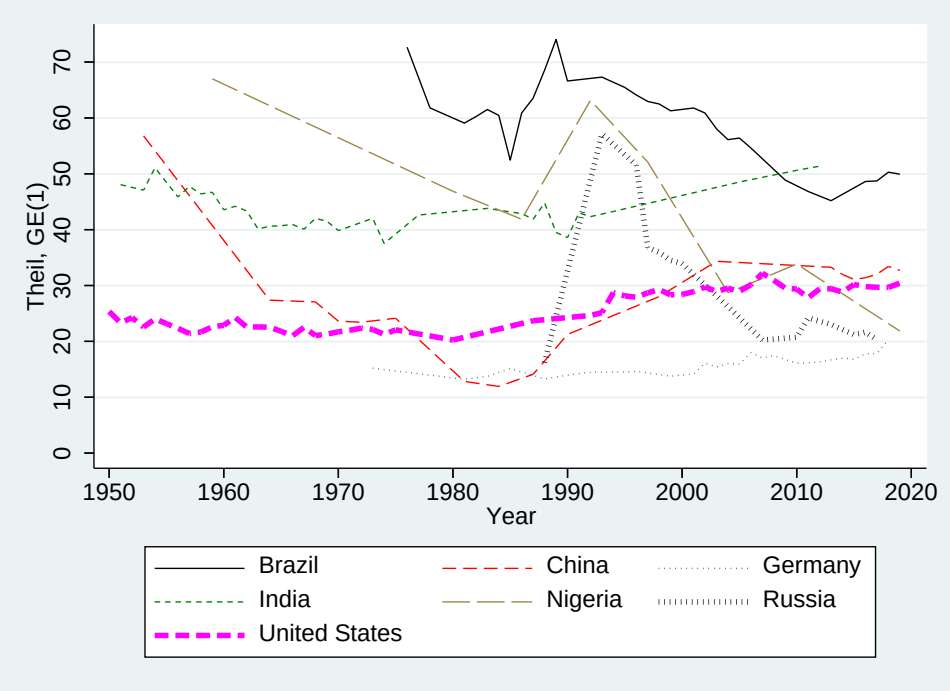
Source: author's construction based on the WIID.

Appendix E: Within-country inequality in selected countries

Figure E1: Inequality in selected countries






Theil, GE(1)
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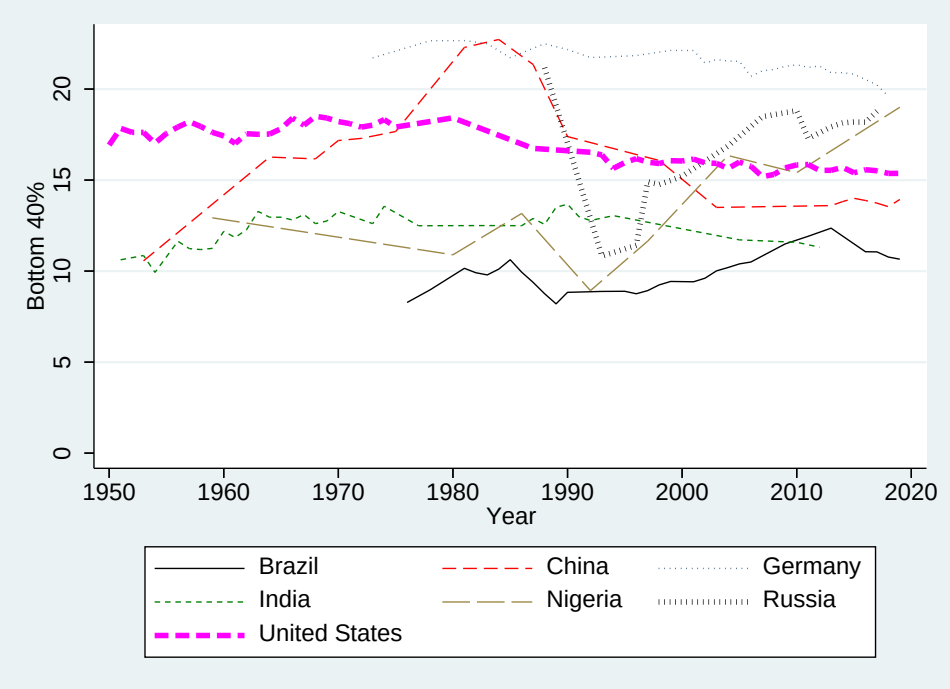
China
Germany
India
Nigeria
Russia
United States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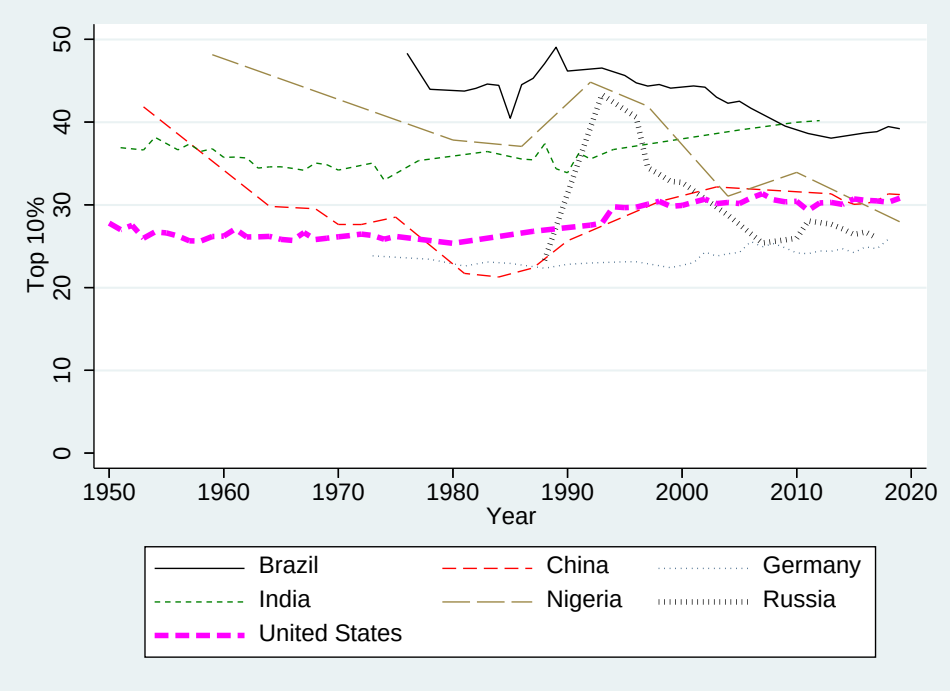
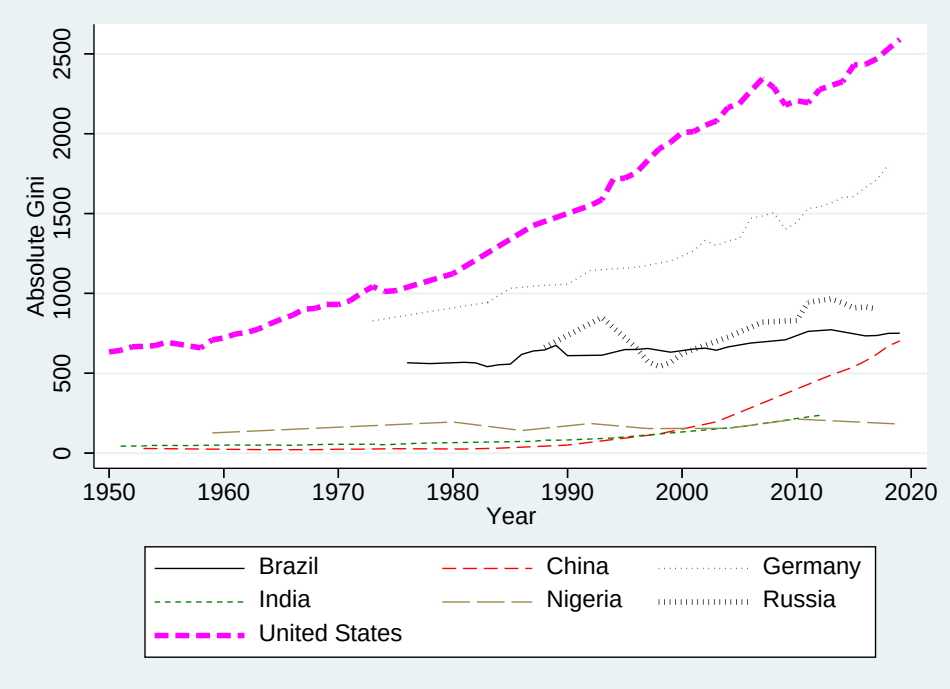
United States



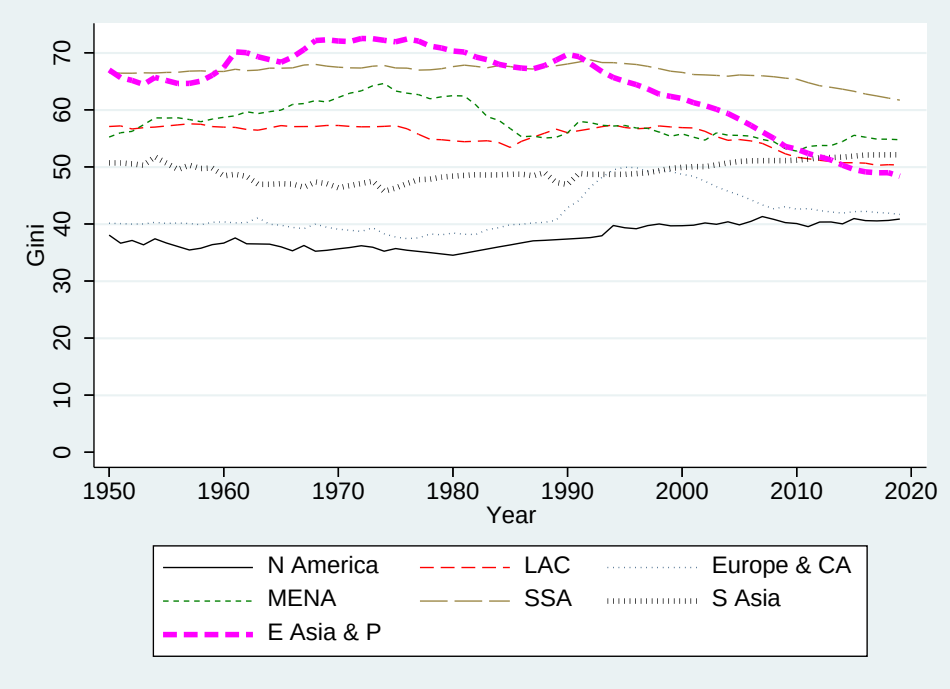


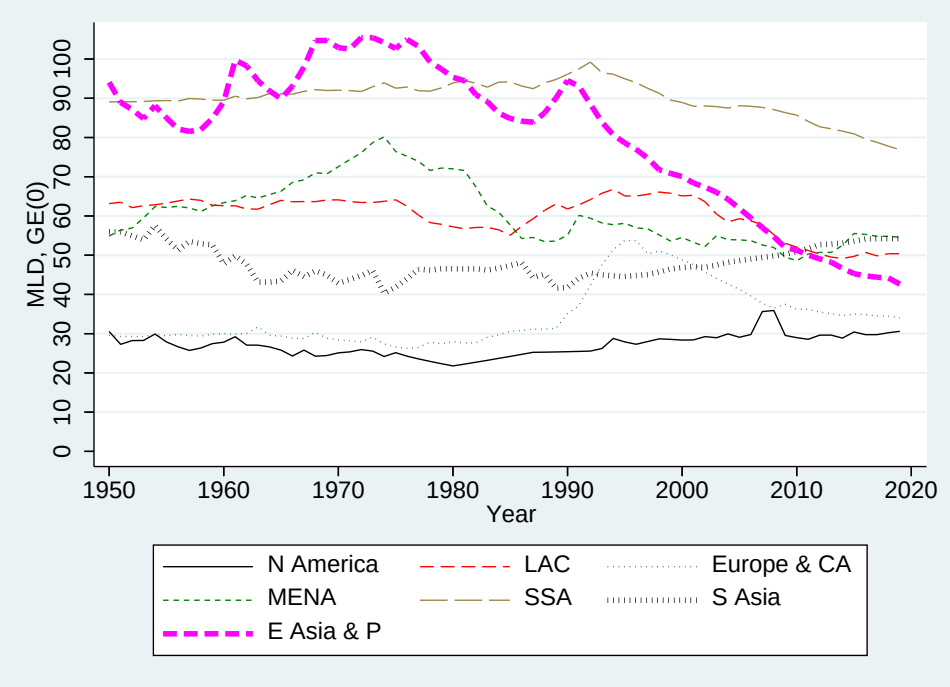
Source: author's construction based on the WIID.

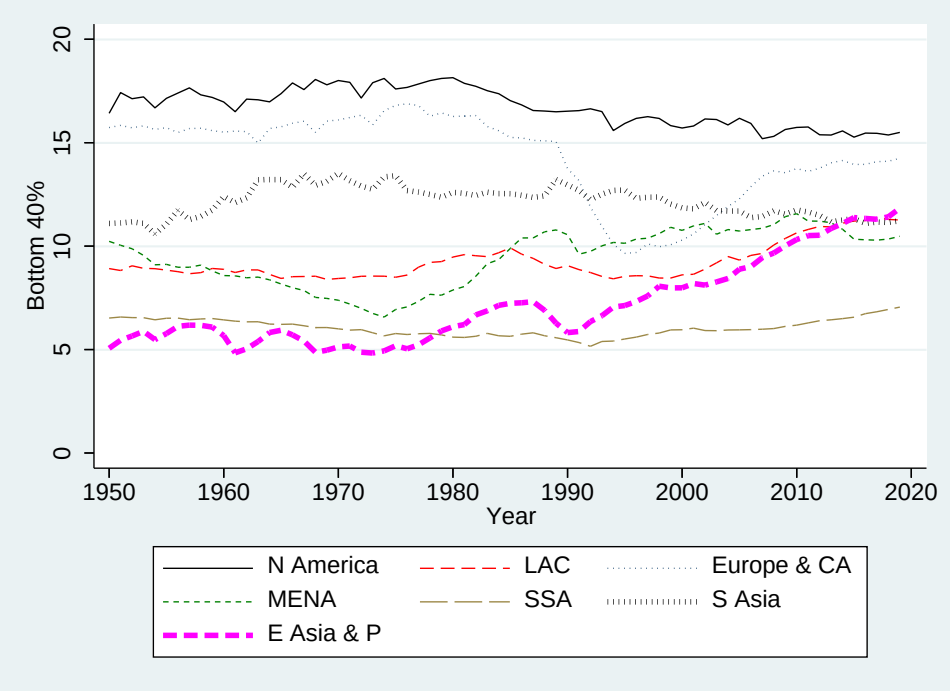
Appendix F: Global inequality by region and income group

Figure F1: Global inequality by region and income group

a. By region






Bottom 40%
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S Asia
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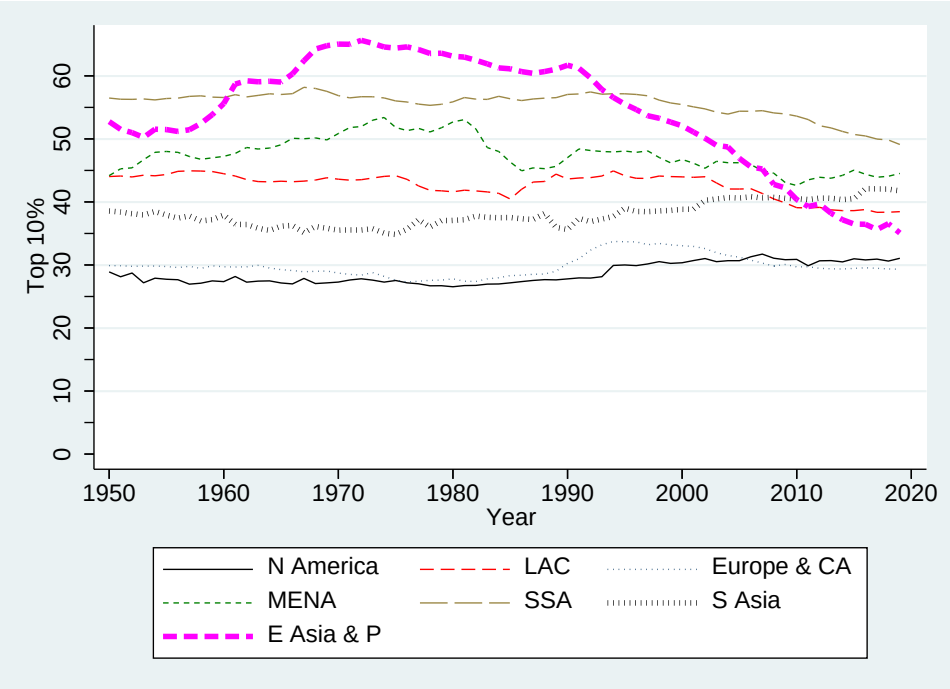
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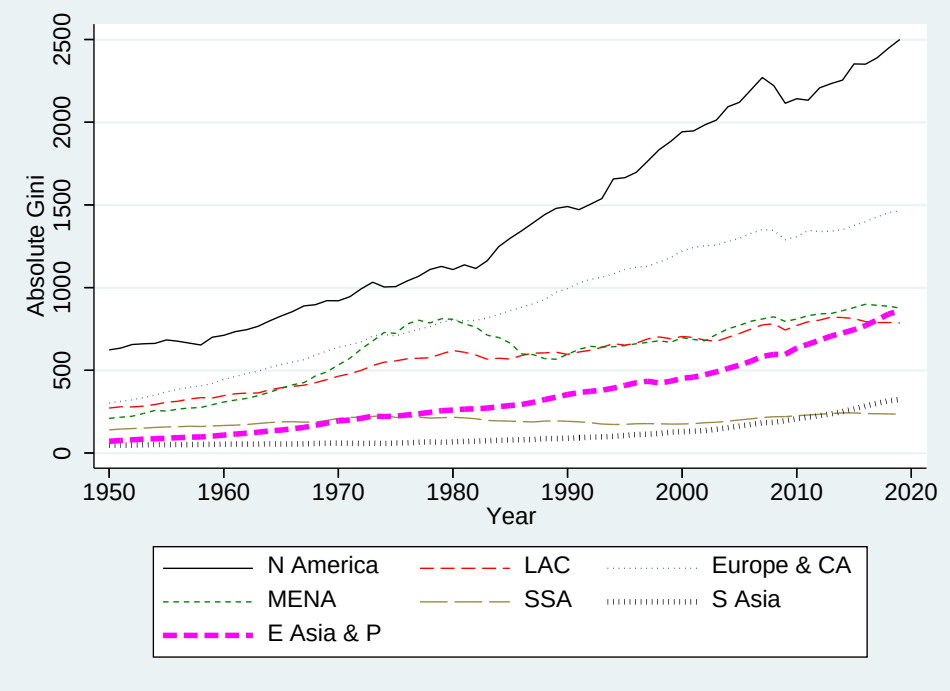
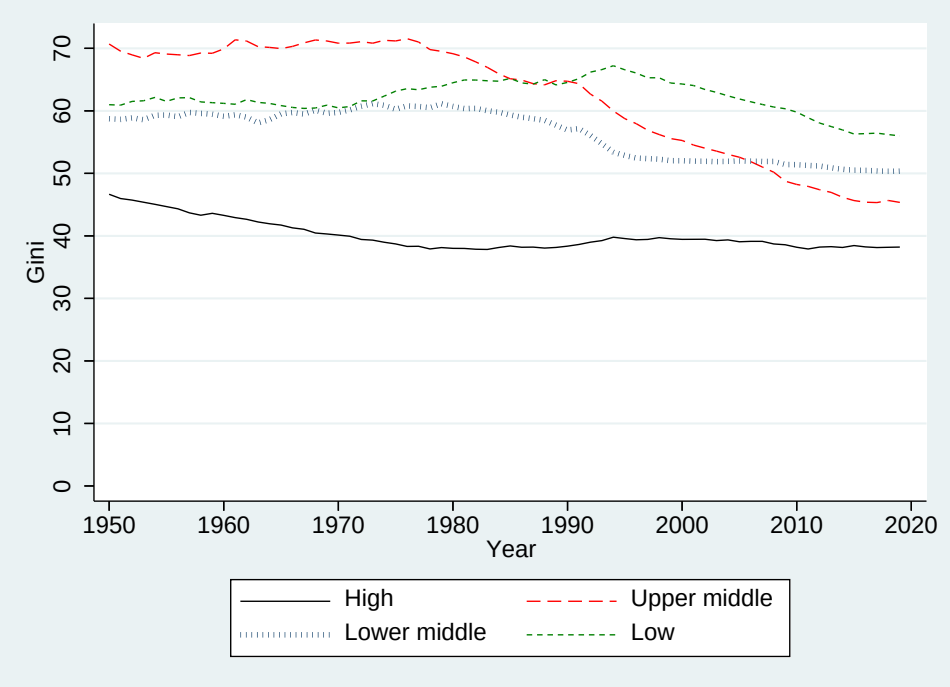
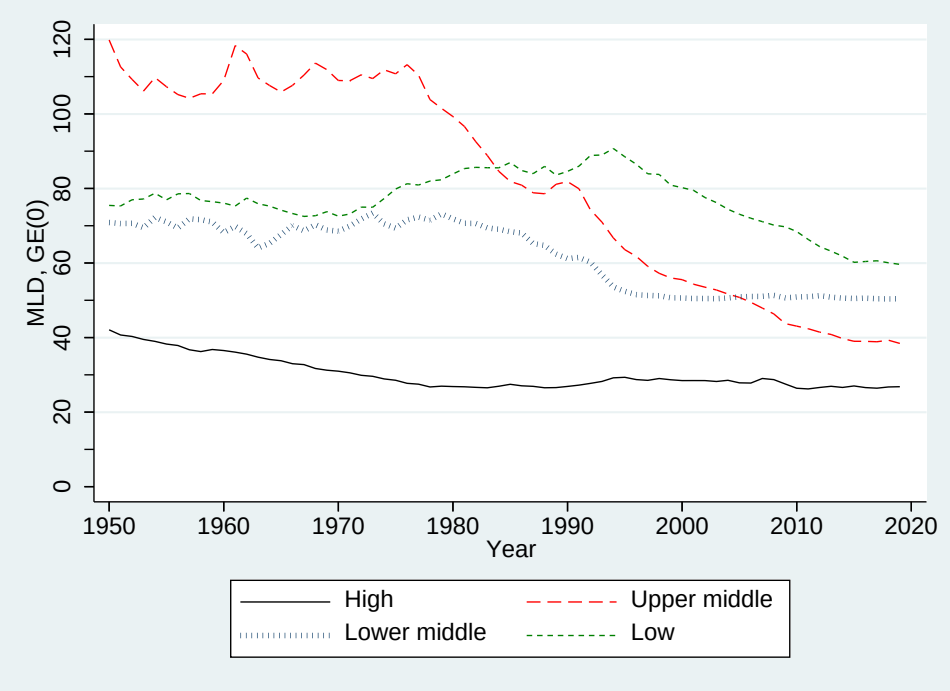


b. By income group




MLD, GE(0)
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Upper middle
Lower middle
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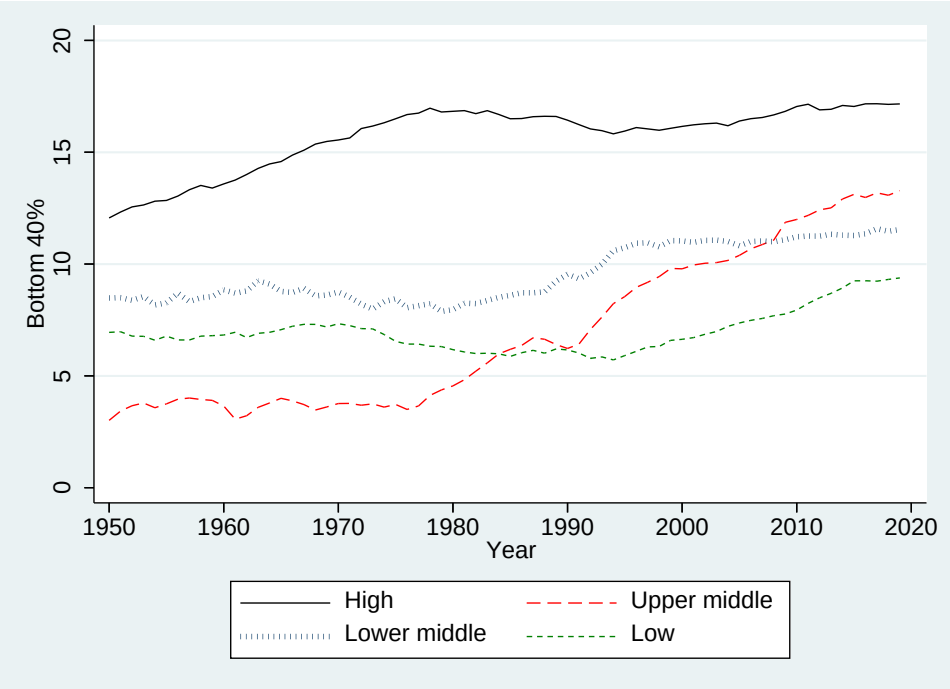
Bottom 40%
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Upper middle
Lower middle
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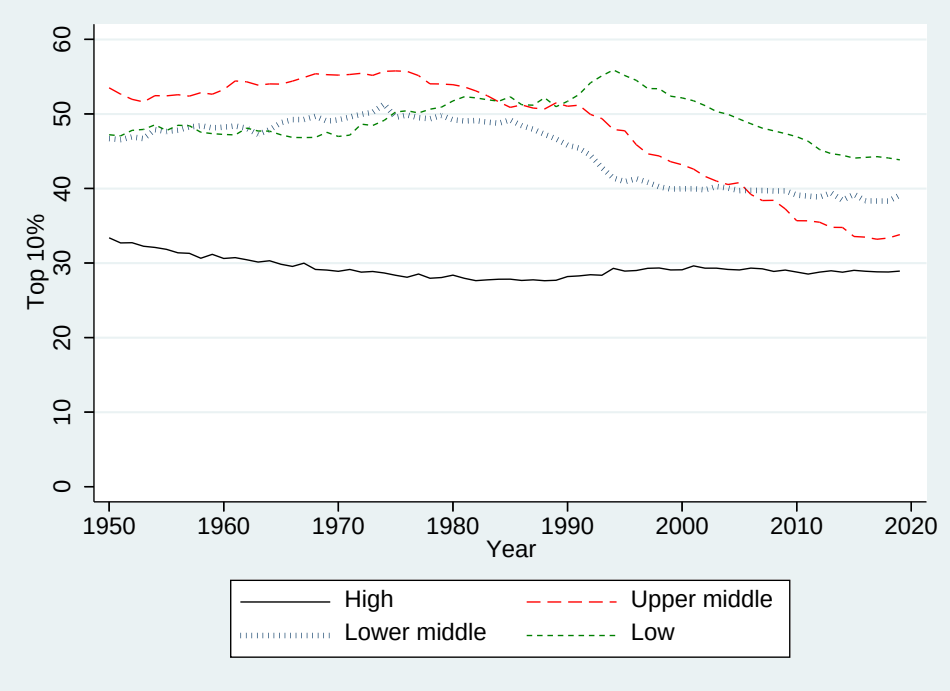
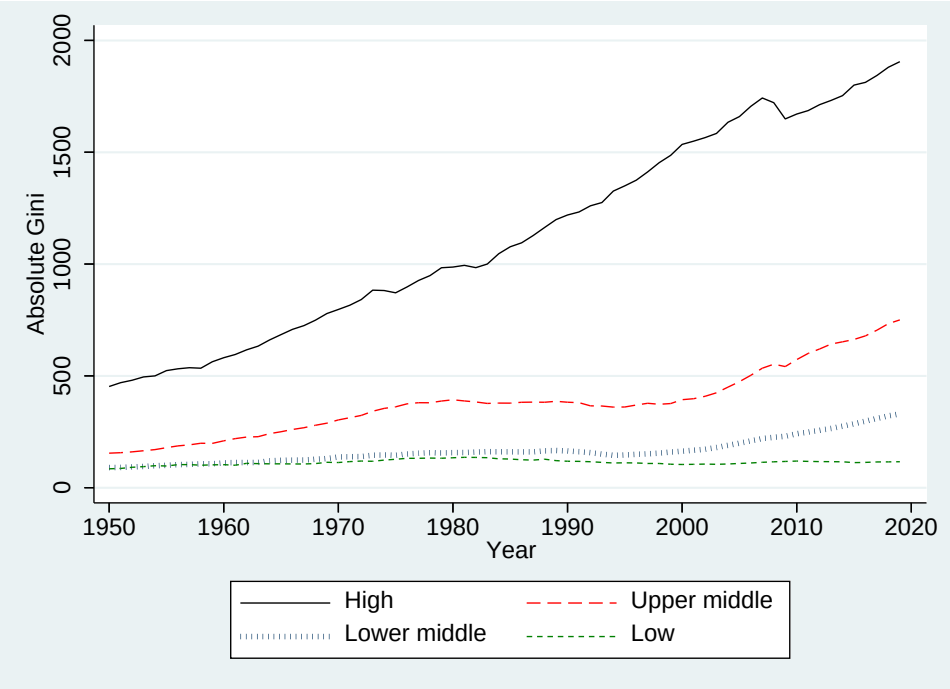
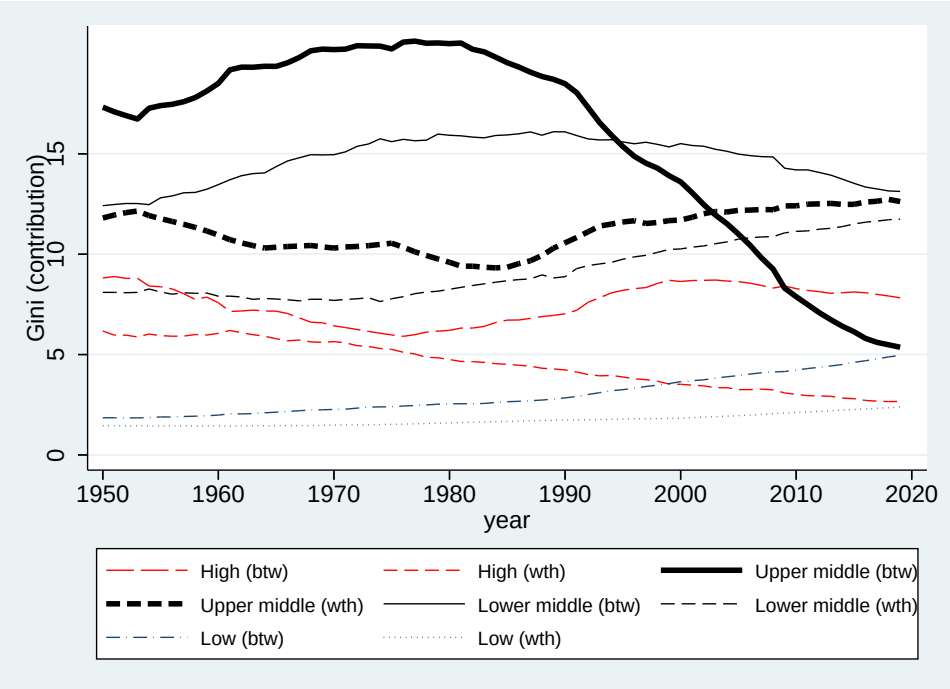




Source: author's construction based on the WIID.

Appendix G. Contributions to global inequality

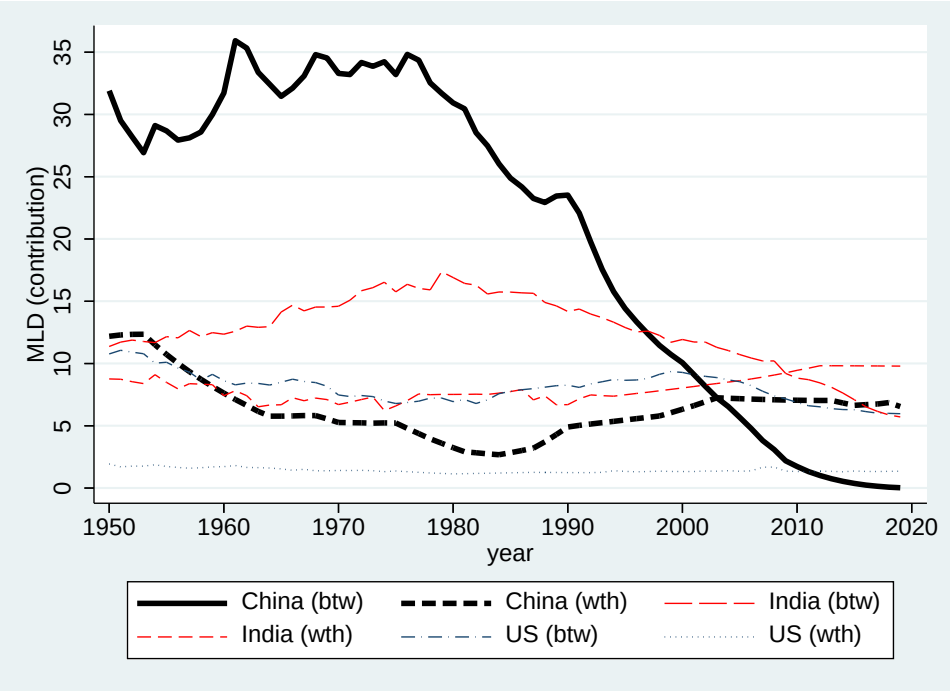
Figure G1: Country contributions to inequality by country's income group, Gini

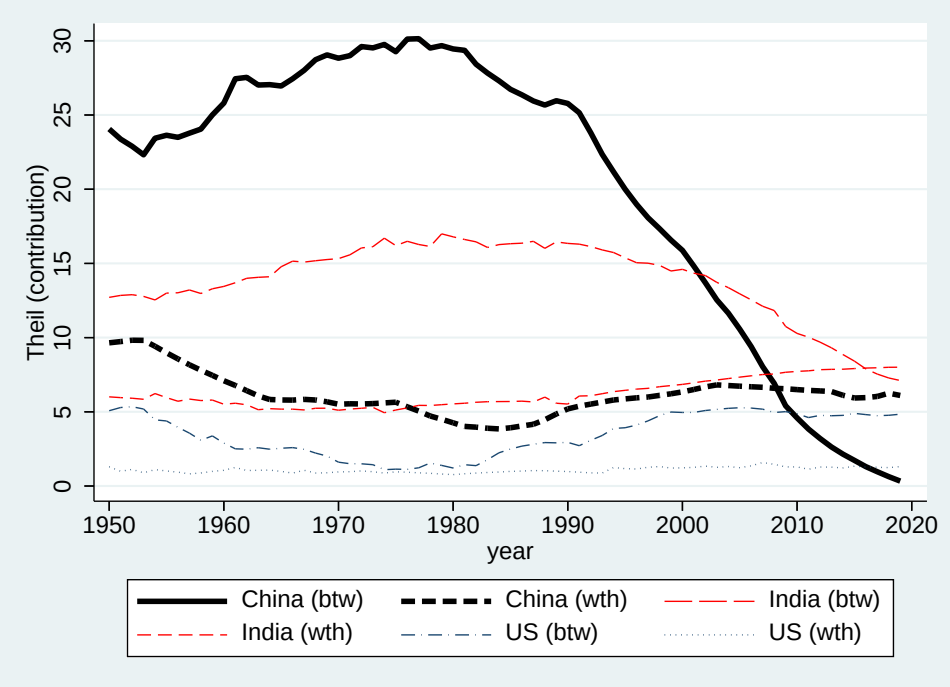


Source: author's construction based on the WIID.

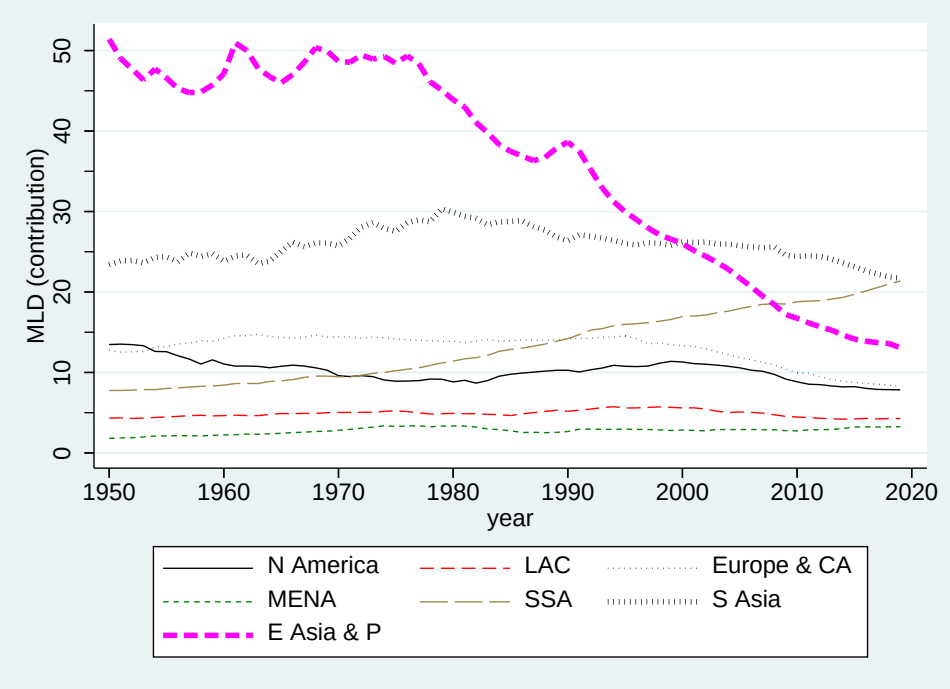
Figure G2: Contribution to global inequality by country, region, and income group; MLD and Theil

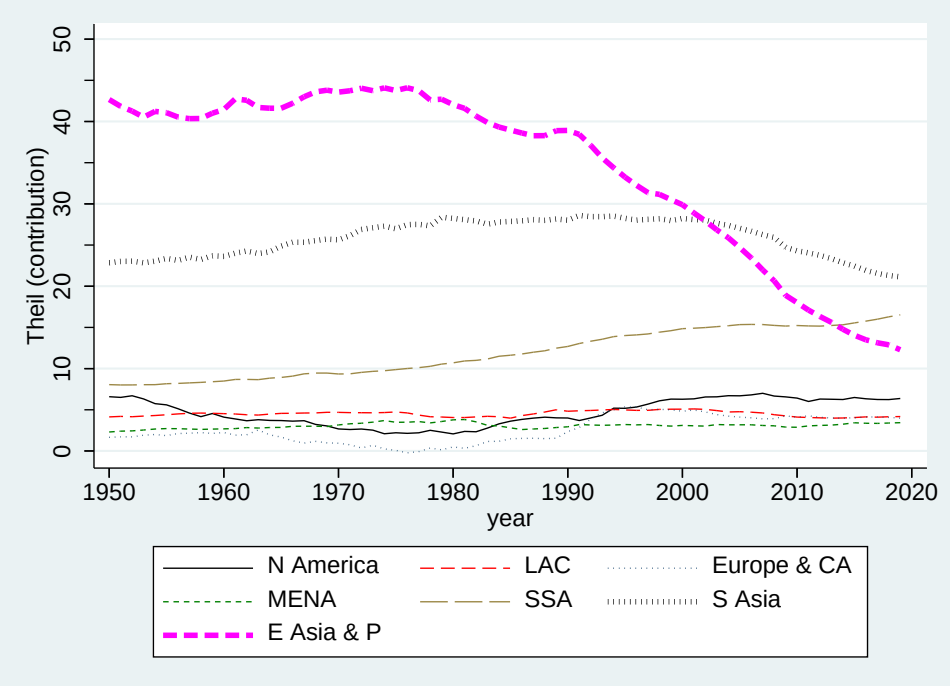
a. By country



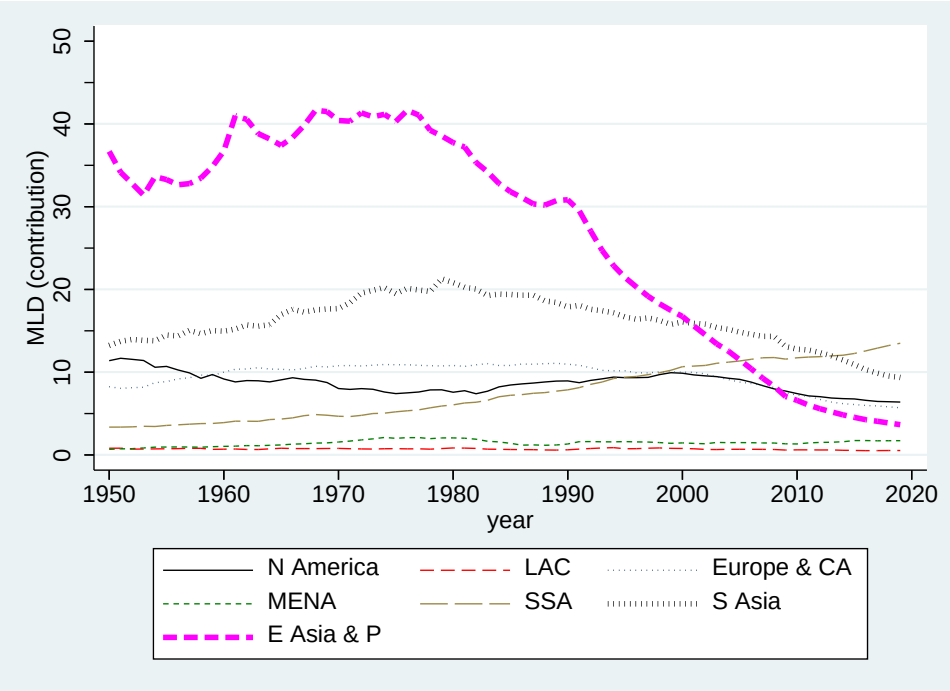


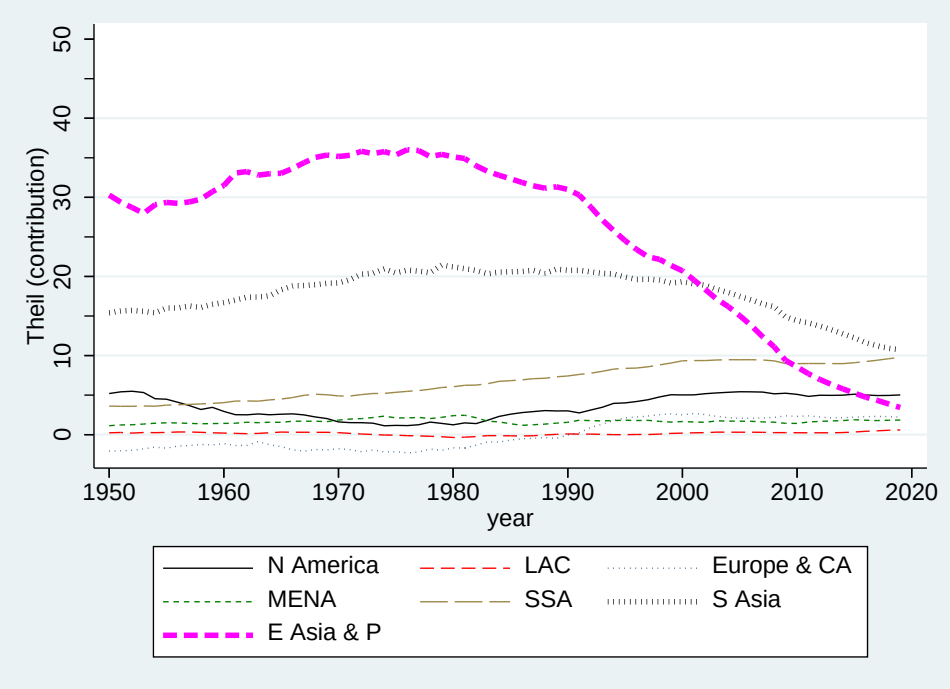
b. By region, overall



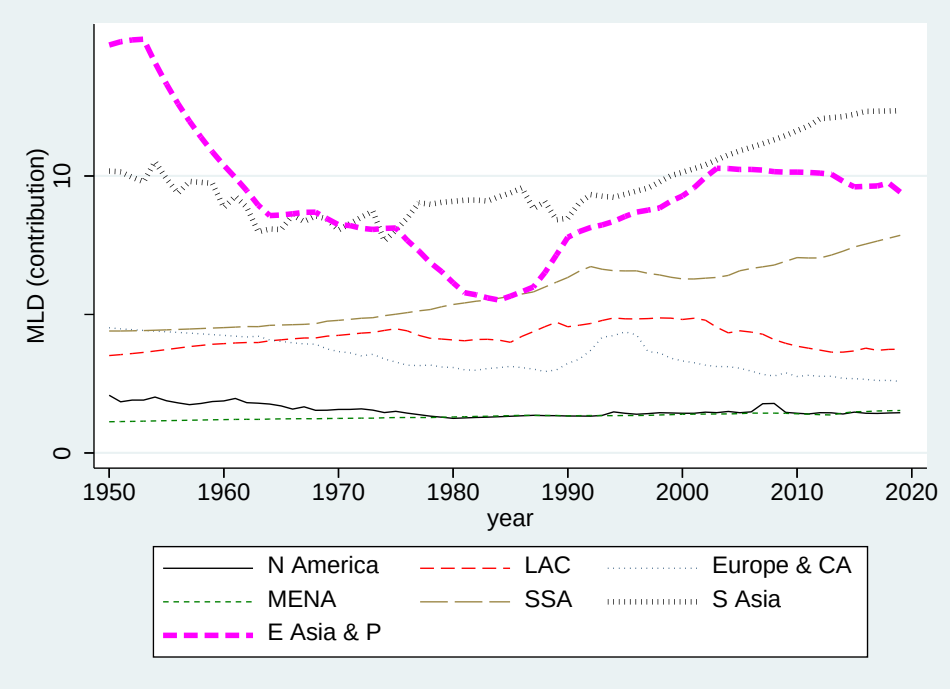


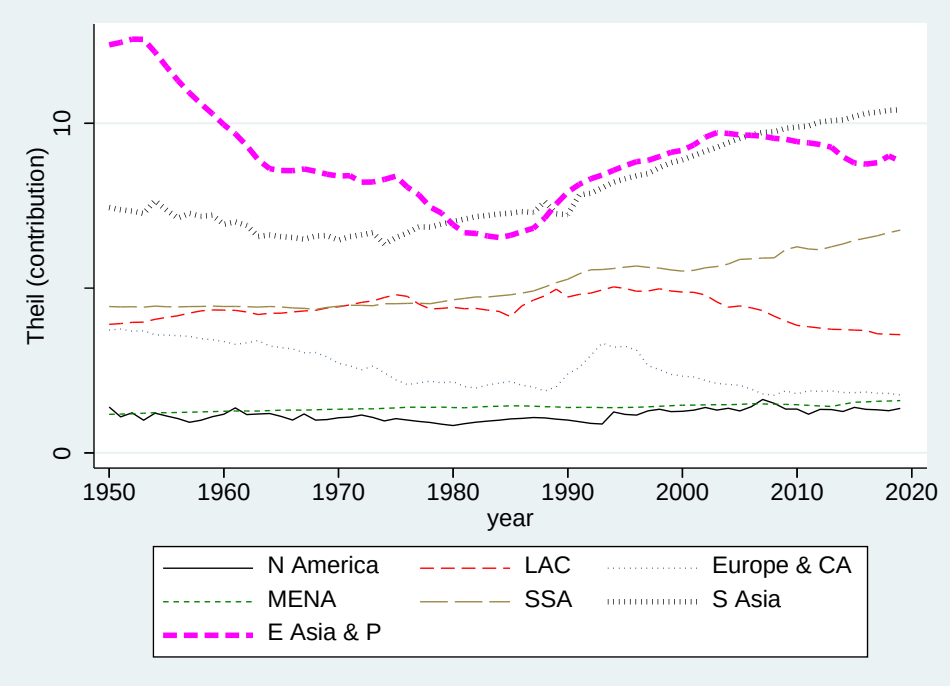
c. By region, between countries



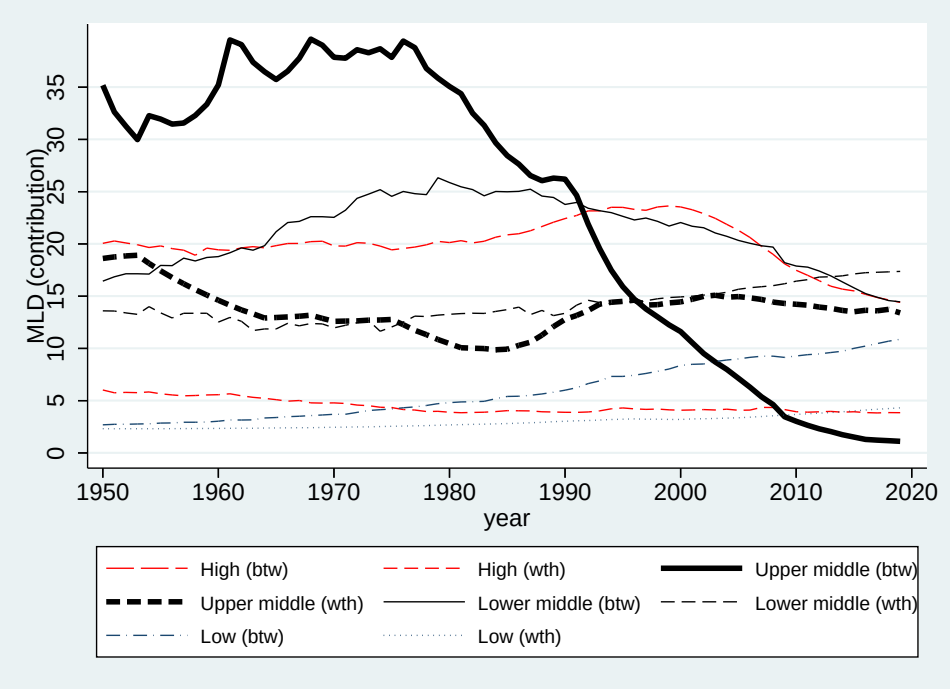


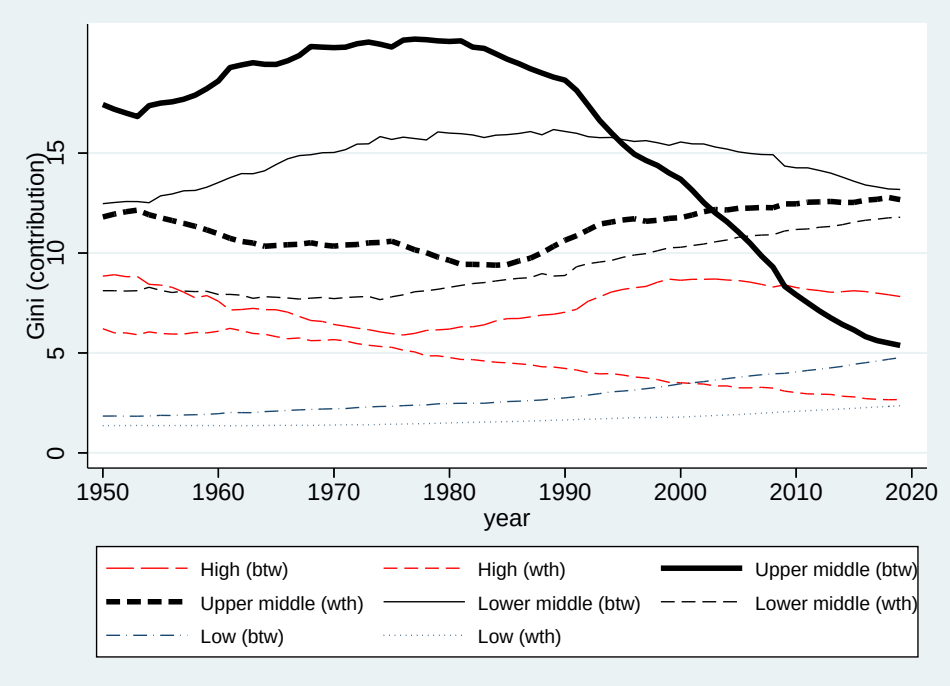
d. By region, within countries





e. By income group





Source: author's construction based on the WIID.

Table G1: Contribution to global income inequality—changes over time by geographical region and selected countries, MLD index

	1950–80				1980–90				1990–2000				2000–19			
	T	B	W	C	T	B	W	C	T	B	W	C	T	B	W	C
World	1.50	12.18	-12.00	1.32	-4.69	-6.29	1.96	-0.37	-9.02	-13.23	2.86	1.35	-22.38	-27.79	1.17	4.24
North America	-4.65	-4.71	-0.61	0.66	1.45	1.00	0.20	0.24	1.03	0.46	0.14	0.43	-3.47	-3.90	0.12	0.31
United States	-4.63	-4.54	-0.57	0.48	1.42	1.00	0.22	0.20	1.11	0.59	0.12	0.40	-3.29	-3.67	0.12	0.26
Latin America and the Caribbean	0.60	-0.27	-0.20	1.08	0.25	-0.27	0.37	0.16	0.43	0.11	0.14	0.17	-1.33	-0.21	-1.03	-0.08
Brazil	0.07	-0.08	-0.25	0.40	0.17	-0.07	0.18	0.06	-0.08	-0.01	-0.11	0.04	-0.14	0.05	-0.11	-0.09
Mexico	0.36	0.05	-0.05	0.36	-0.01	-0.16	0.06	0.08	0.11	0.00	0.05	0.06	-0.41	-0.21	-0.24	0.03
Europe and Central Asia	1.14	2.64	-0.62	-0.89	0.29	0.08	0.44	-0.24	-0.89	-0.65	0.53	-0.76	-5.04	-4.43	-0.28	-0.33
Germany	1.05	1.61	-0.05	-0.51	-0.26	-0.14	0.01	-0.13	-0.16	-0.08	0.00	-0.08	-0.86	-0.85	0.11	-0.12
Russia	0.71	0.62	0.00	0.09	-0.16	-0.52	0.36	0.01	-1.00	-1.10	0.22	-0.11	-0.30	0.12	-0.35	-0.08
Middle East and North Africa	1.56	0.32	-0.11	1.34	-0.70	-1.03	-0.13	0.46	0.19	-0.07	-0.04	0.30	0.40	-0.09	-0.06	0.56
Sub-Saharan Africa	3.63	2.56	0.15	0.92	2.78	1.49	0.34	0.95	2.73	1.75	-0.77	1.75	4.40	-0.23	-0.31	4.94
Nigeria	0.27	0.32	-0.03	-0.02	0.49	0.32	0.12	0.05	0.20	0.34	-0.28	0.14	-0.09	-0.08	-0.35	0.34
South Asia	6.47	8.54	-1.67	-0.40	-3.52	-2.58	-0.99	0.05	-0.14	-2.18	1.04	1.00	-4.46	-6.35	1.67	0.23
Bangladesh	1.29	1.09	0.00	0.20	0.16	0.02	0.05	0.08	0.10	-0.11	0.10	0.12	-0.49	-0.66	0.24	-0.06
India	4.28	6.52	-1.63	-0.61	-3.53	-2.39	-1.08	-0.06	-0.90	-2.27	0.94	0.43	-4.43	-5.64	1.45	-0.24
Pakistan	0.48	0.39	-0.02	0.11	-0.02	-0.21	0.04	0.15	0.28	0.10	-0.03	0.21	0.58	0.20	0.02	0.36
East Asia and the Pacific	-7.23	3.09	-8.94	-1.39	-5.24	-4.98	1.72	-1.99	-12.37	-12.65	1.81	-1.54	-12.88	-12.58	1.07	-1.37
China	-9.87	1.18	-8.97	-2.08	-5.71	-5.59	1.75	-1.87	-11.97	-12.25	1.74	-1.46	-9.74	-9.85	1.06	-0.94
Indonesia	0.27	0.17	0.03	0.07	-0.49	-0.28	-0.12	-0.09	-0.21	-0.09	-0.06	-0.06	-0.11	-0.35	0.29	-0.05
Japan	1.58	1.32	0.05	0.22	0.99	0.89	0.11	0.00	-0.38	-0.38	0.10	-0.10	-1.36	-1.20	-0.02	-0.13

Note: changes in the inequality index between initial and final year. T=total, B=distributional effect, between countries, W=distributional effect, within countries, C=composition effect (total).

Source: author's construction based on the WIID.

Table G2: Contribution to global income inequality—changes over time by geographical region and selected countries, Theil index

	1950–80				1980–90				1990–2000				2000–19			
	T	B	W	C	T	B	W	C	T	B	W	C	T	B	W	C
World	3.12	4.18	-9.39	8.34	2.35	-1.89	1.68	2.55	-1.47	-6.53	2.81	2.25	-24.35	-27.98	-0.24	3.88
North America	-4.52	-4.45	-0.14	0.08	1.93	1.30	0.35	0.28	2.28	1.66	0.37	0.25	0.09	-0.27	0.24	0.12
United States	-4.39	-4.32	-0.13	0.06	1.93	1.30	0.38	0.26	2.26	1.68	0.34	0.24	-0.03	-0.36	0.23	0.10
Latin America and the Caribbean	-0.08	-0.10	-0.48	0.49	0.77	0.70	0.13	-0.06	0.26	0.23	-0.01	0.04	-0.89	0.54	-1.29	-0.14
Brazil	-0.22	-0.34	-0.12	0.24	0.31	0.23	0.07	0.01	-0.09	0.10	-0.19	0.00	-0.25	0.25	-0.41	-0.09
Mexico	-0.19	-0.05	-0.24	0.11	0.16	0.07	0.09	0.00	0.07	0.05	0.02	0.01	-0.14	0.20	-0.34	-0.01
Europe and Central Asia	-1.15	-0.02	-0.52	-0.60	1.86	1.04	0.57	0.25	2.48	2.79	0.41	-0.71	-0.82	-0.25	-0.11	-0.47
Germany	0.79	0.89	-0.08	-0.02	0.00	-0.06	0.00	0.06	0.09	0.13	-0.04	0.00	0.37	0.19	0.26	-0.08
Russia	0.00	0.05	0.06	-0.11	0.78	0.17	0.66	-0.05	0.30	0.35	0.09	-0.14	-0.34	0.14	-0.40	-0.09
Middle East and North Africa	1.47	0.09	-0.10	1.48	-0.84	-1.01	-0.16	0.33	0.17	-0.06	-0.02	0.24	0.33	-0.11	-0.04	0.48
Sub-Saharan Africa	2.64	1.61	-0.66	1.69	1.99	0.75	0.03	1.20	2.16	0.75	-0.42	1.83	1.69	-2.17	-0.42	4.28
Nigeria	0.21	0.39	-0.29	0.10	0.44	0.24	0.08	0.12	0.35	0.28	-0.17	0.23	-0.04	-0.32	-0.25	0.53
South Asia	5.38	4.19	-1.13	2.33	-0.22	-1.11	-0.23	1.12	0.21	-2.59	1.04	1.76	-7.06	-9.05	0.92	1.07
Bangladesh	0.97	0.60	-0.06	0.44	0.21	-0.04	0.06	0.19	0.11	-0.17	0.08	0.20	-0.73	-0.86	0.09	0.04
India	3.60	3.02	-0.95	1.53	-0.45	-0.91	-0.30	0.76	-0.42	-2.37	0.92	1.03	-6.31	-7.52	0.83	0.38
Pakistan	0.50	0.23	-0.05	0.33	0.13	-0.15	0.01	0.26	0.34	0.01	0.01	0.33	0.15	-0.35	0.02	0.49
East Asia and the Pacific	-0.64	2.85	-6.36	2.87	-3.13	-3.54	0.98	-0.58	-9.02	-9.32	1.45	-1.16	-17.68	-16.69	0.46	-1.46
China	0.01	4.19	-5.73	1.54	-2.73	-2.99	0.96	-0.70	-8.74	-8.87	1.39	-1.26	-15.76	-14.97	0.51	-1.30
Indonesia	0.49	0.11	-0.05	0.42	-0.38	-0.30	-0.04	-0.04	-0.25	-0.18	-0.04	-0.04	-0.82	-0.97	0.20	-0.05
Japan	-1.62	-1.32	-0.23	-0.07	0.75	0.58	0.09	0.08	0.21	0.07	0.14	0.00	0.17	0.14	0.11	-0.08

Note: changes in the inequality index between initial and final year. T=total, B=distributional effect, between countries, W=distributional effect, within countries, C=composition effect (total).

Source: author's construction based on the WIID.