

1        **Supplementary Information to the paper “Food expenditure**  
2            **shares across consumption distributions worldwide”**

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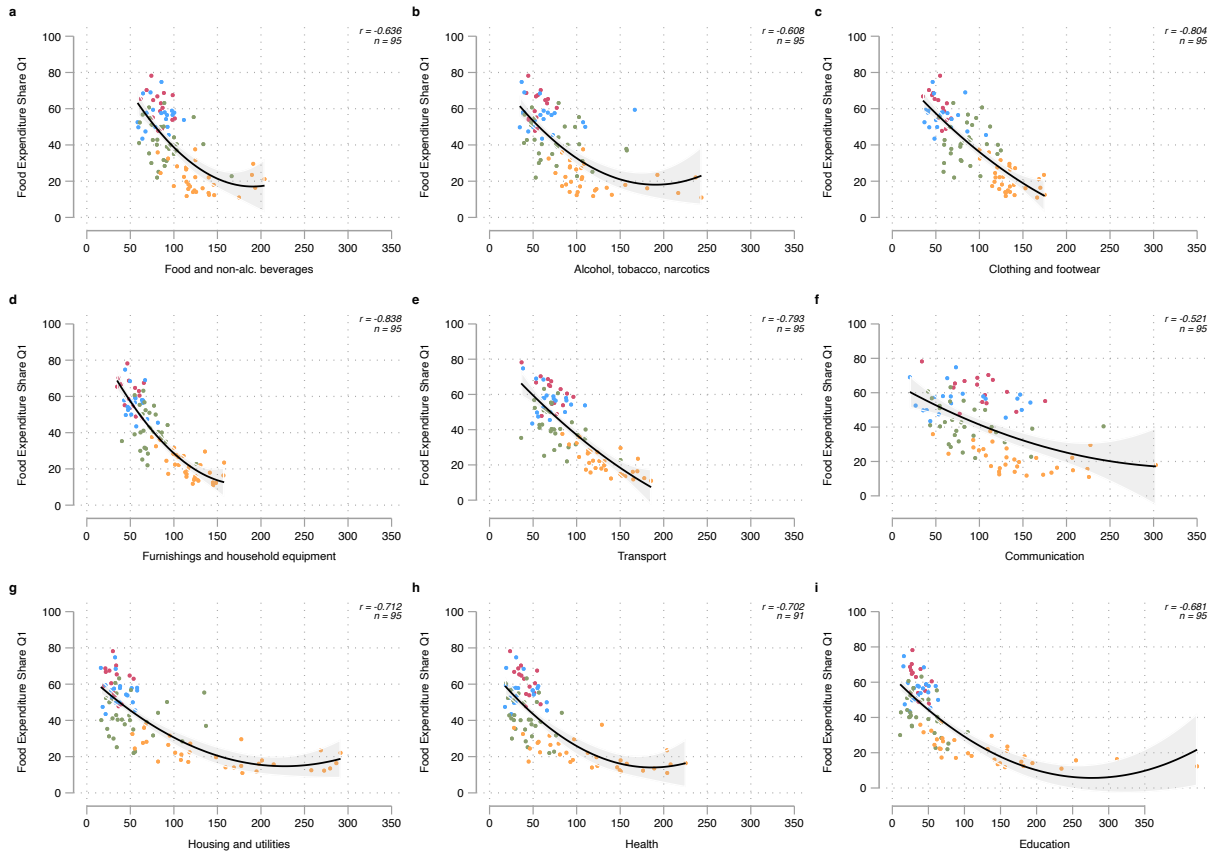
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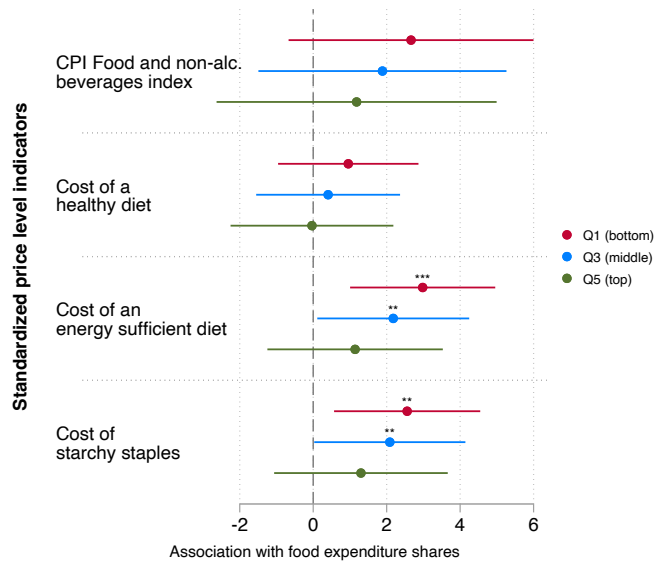


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2 **Fig. S1 | Associations between food expenditure shares and category-specific price level**

3 **indices.** Panels **a–i** show country-level associations between food expenditure shares (FES) of the bottom quintile (Q1) and  
 4 price level indices for nine consumption categories from the 2021 International Comparison Program: food and non-alcoholic  
 5 beverages (**a**), alcoholic beverages, tobacco and narcotics (**b**), clothing and footwear (**c**), furnishings and household equipment  
 6 (**d**), transport (**e**), communication (**f**), housing and utilities (**g**), health (**h**), and education (**i**). Each point represents a country–year  
 7 observation; colors denote World Bank income groups. Solid lines show fitted quadratic trends, with shaded areas indicating 95%  
 8 confidence intervals. Reported statistics denote Pearson correlation coefficients ( $r$ ), with corresponding sample sizes ( $n$ ) shown in  
 9 each panel. The sample is restricted to countries with observations between 2018 and 2024 (that is, within  $\pm 3$  years of the 2021  
 10 ICP round) to limit the influence of longer-term changes in relative prices.

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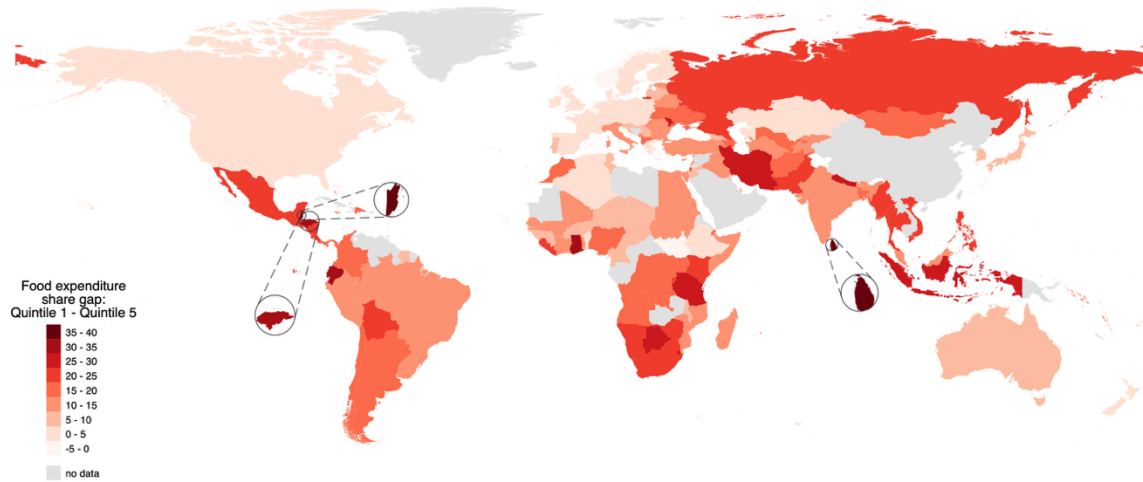


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2 **Fig. S2 | Conditional associations between food expenditure shares and food price indicators.**

3 Associations between food expenditure shares and different standardized food price indices, conditional on other category-specific  
 4 price level indices from Fig. 1c and average consumption expenditure. To allow for comparisons across indicators, the CPI Food  
 5 and non-alc. beverages index is standardized in this regression. Points show estimated coefficients from regressions of quintile-  
 6 specific FES (Q1, Q3, and Q5). The three other indicators are sourced from the Food Prices for Nutrition dataset. Horizontal bars  
 7 denote 95% confidence intervals. Colors indicate welfare quintiles. Price level indicators refer to 2021 values.

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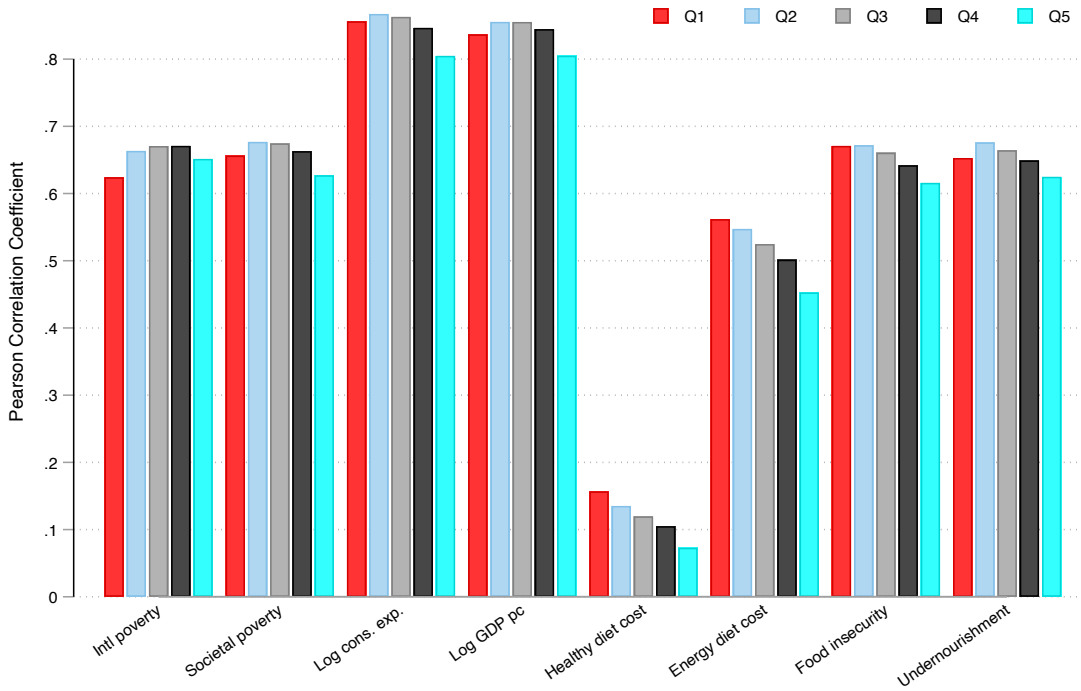


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2 **Fig. S3 | Food expenditure share difference between the top 20% and bottom 20%.** The map  
 3 shows the difference in mean food expenditure shares (FES) between the bottom (Q1) and top (Q5) welfare quintiles within each  
 4 country (Q1-Q5; percentage points). Countries are shaded by the Q1-Q5 gap: darker colors indicate larger within-country  
 5 differences, and lighter colors indicate smaller differences, grey indicates no data. Country boundaries use World Bank Admin 0  
 6 shapefiles. Insets zoom in on Belize, Honduras, and Sri Lanka, which exhibit particularly large Q1-Q5 gaps. Total sample: N =  
 7 163 countries with available data for Q1 and Q5.

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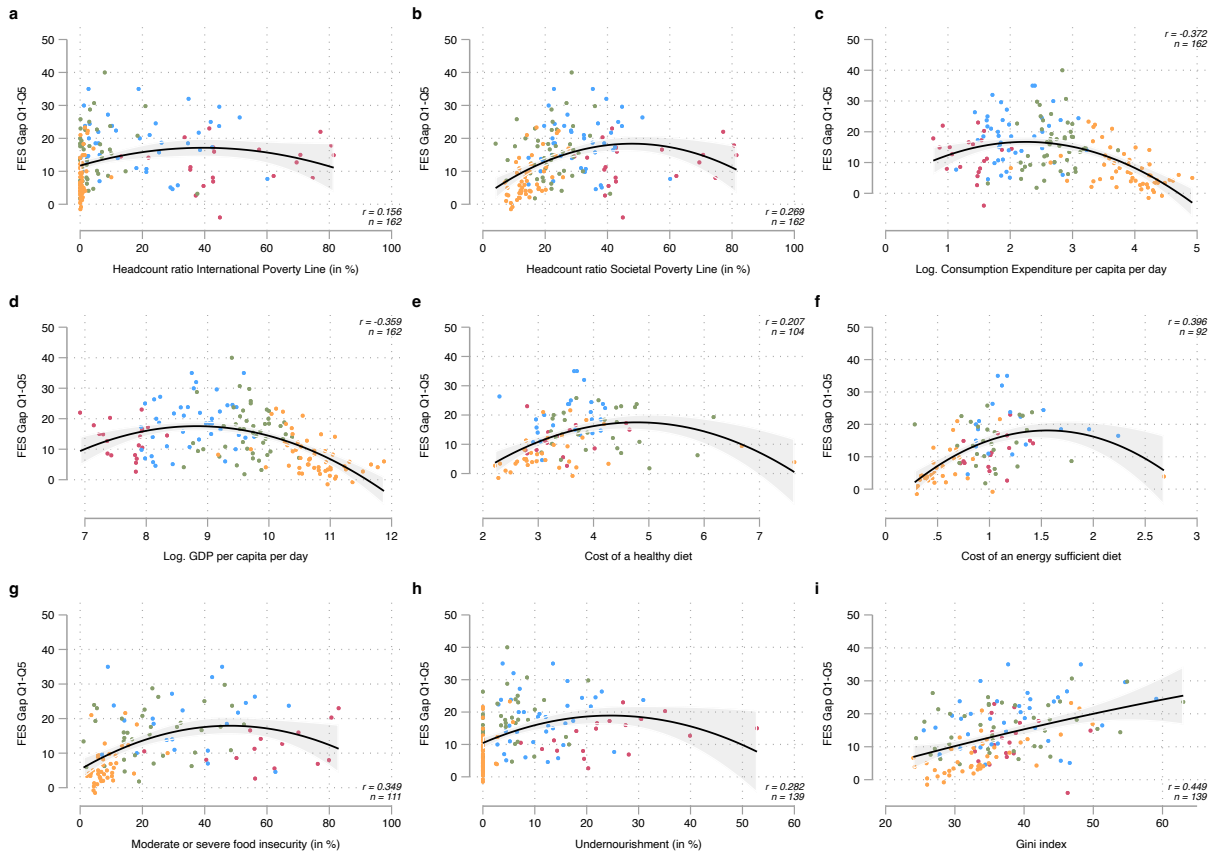


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#### 4 **Fig. S4 | Correlates of food expenditure shares across quintiles of the welfare**

5 **distribution.** The figure reports absolute Pearson correlation coefficients between food expenditure shares (FES) and  
6 selected country-level indicators, computed separately for each consumption quintile (Q1–Q5). Indicators include extreme and  
7 societal poverty rates, log consumption expenditure per capita, log GDP per capita, the cost of a healthy diet, the cost of an  
8 energy-sufficient diet, moderate or severe food insecurity, and undernourishment. Bars represent correlation coefficients by  
9 quintile, with Q1 denoting the bottom and Q5 the top 20% of the welfare distribution. Correlations are calculated using all  
10 country-level observations with available data for each pair of variables.

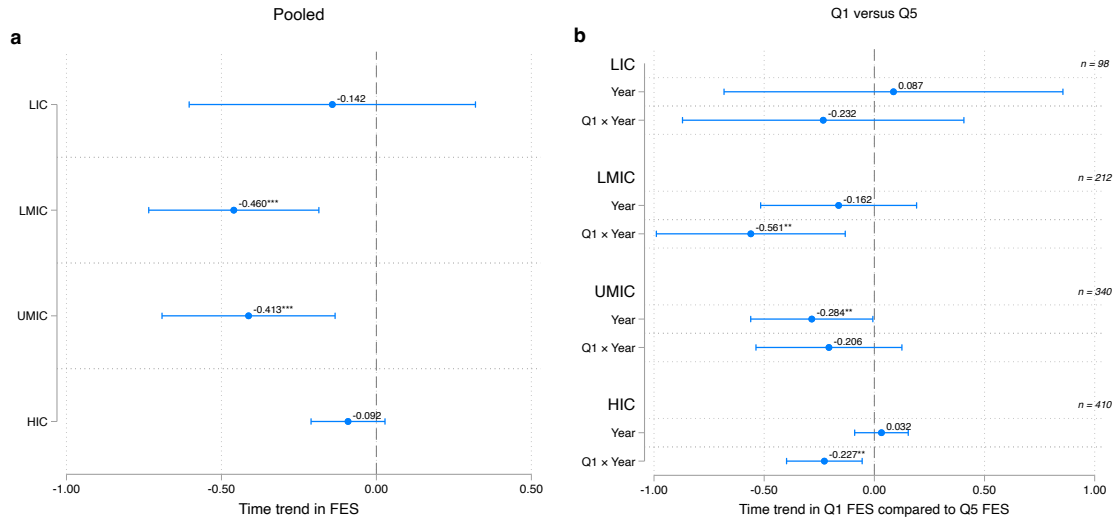
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2 **Fig. S5 | Correlates of within-country inequality in food budget shares (Q1–Q5 gap).** The figure  
 3 shows bivariate associations between food expenditure shares among the bottom 20% in a country (Quintile 1, y-axis) and selected  
 4 country-level characteristics (x-axis). Each panel plots country-level observations (grey dots) and a fitted quadratic polynomial  
 5 (green line) with 95% confidence intervals (light green). Explanatory variables include the headcount ratio at the international  
 6 poverty line (a), the headcount ratio at the societal poverty line (b), mean per capita consumption expenditure (log) (c), GDP per  
 7 capita (log) (d), the cost of a healthy diet (e), the cost of energy-sufficient diets (f), the prevalence of severe food insecurity (g),  
 8 undernourishment (h), and the GINI index (i). Income and cost variables are all PPP-adjusted. Pearson Correlation Coefficients ( $r$ )  
 9 and the number of countries included are reported in each panel plot.

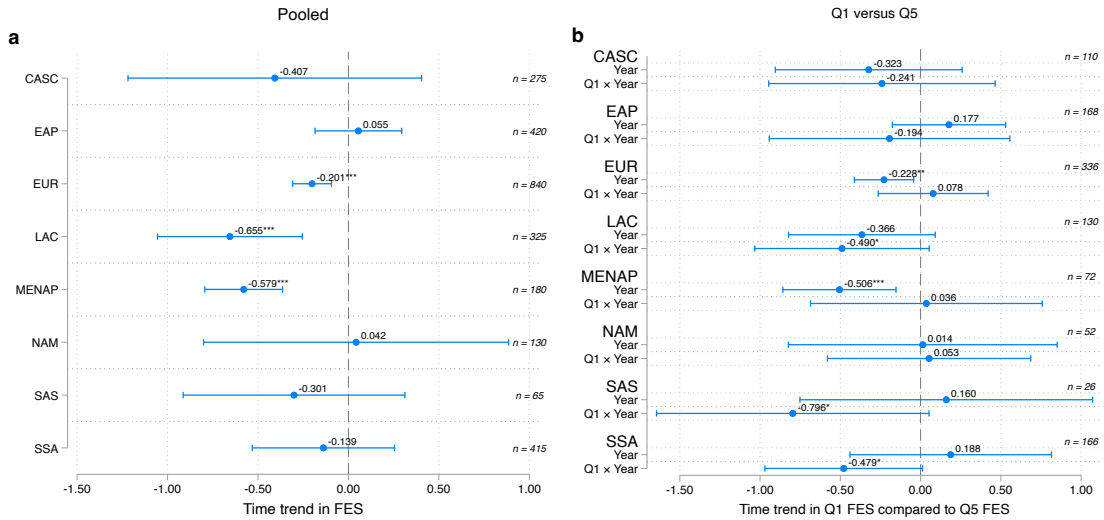
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2 **Fig. S6 | Trends by country income group.** Panel a shows estimated coefficients on a linear time trend in food  
 3 expenditure shares (FES) from panel regressions using all available quintiles. Panel b reports estimates from regressions restricted  
 4 to the bottom (Q1) and top (Q5) quintiles. The coefficient on the time trend corresponds to Q5, while the interaction term (Q1 ×  
 5 Year) captures the differential trend for Q1 relative to Q5. Points denote coefficient estimates and horizontal bars indicate 95%  
 6 confidence intervals. The vertical dashed line marks zero. Country income groups are defined by the World Bank as low-income  
 7 countries (LIC), lower middle-income countries (LMIC), upper middle-income countries (UMIC), and high-income countries  
 8 (HIC). All regressions include country fixed effects. Panel a additionally includes quintile fixed effects. Standard errors are  
 9 clustered at the country level. Sample sizes (n) denote the number of country–year–quintile observations used in each regional  
 10 regression. Statistical significance is indicated by asterisks (\* p < 0.10, \*\* p < 0.05, \*\*\* p < 0.01).

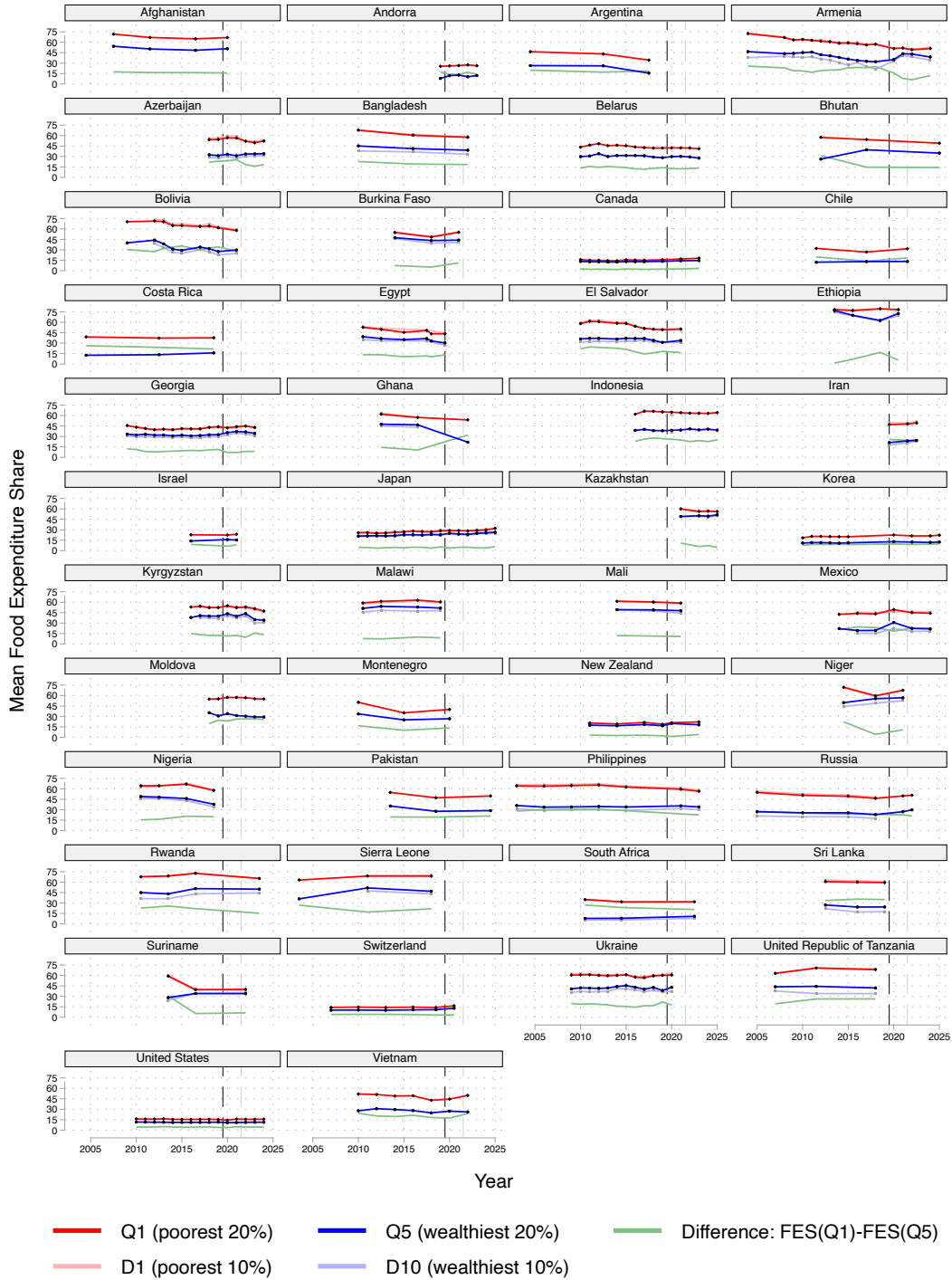
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2 **Fig. S7 | Trends by world region.** Panel **a** shows estimated coefficients on a linear time trend in food expenditure  
3 shares (FES) from panel regressions using all available quintiles. Panel **b** reports estimates from regressions restricted to the bottom  
4 (Q1) and top (Q5) quintiles. The coefficient on the time trend corresponds to Q5, while the interaction term (Q1 × Year) captures  
5 the differential trend for Q1 relative to Q5. Points denote coefficient estimates and horizontal bars indicate 95% confidence  
6 intervals. The vertical dashed line marks zero. Regions are defined as Central Asia and South Caucasus (CASC), East Asia and  
7 Pacific (EAP), Europe (EUR), Latin America and the Caribbean (LAC), Middle East, North Africa, Afghanistan and Pakistan  
8 (MENAP), North America (NAM), South Asia (SAS), and Sub-Saharan Africa (SSA). All regressions include country fixed effects.  
9 Panel **a** additionally includes quintile fixed effects. Standard errors are clustered at the country level. Sample sizes (n) denote the  
10 number of country-year-quintile observations used in each regional regression. Statistical significance is indicated by asterisks (\*  
11  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ ).

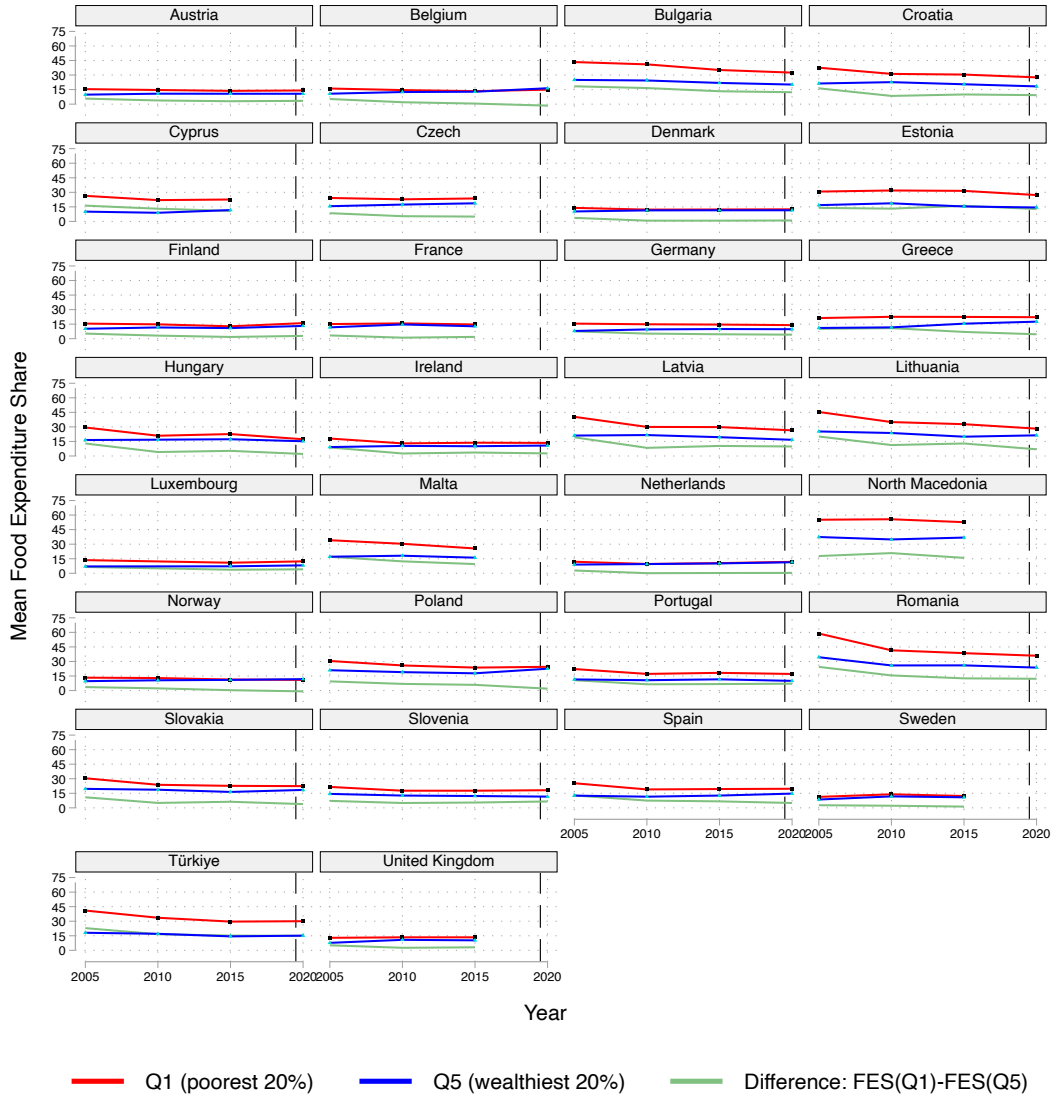
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2 **Fig. S8 | Trends in food expenditure shares at the bottom and top of the welfare distribution.**

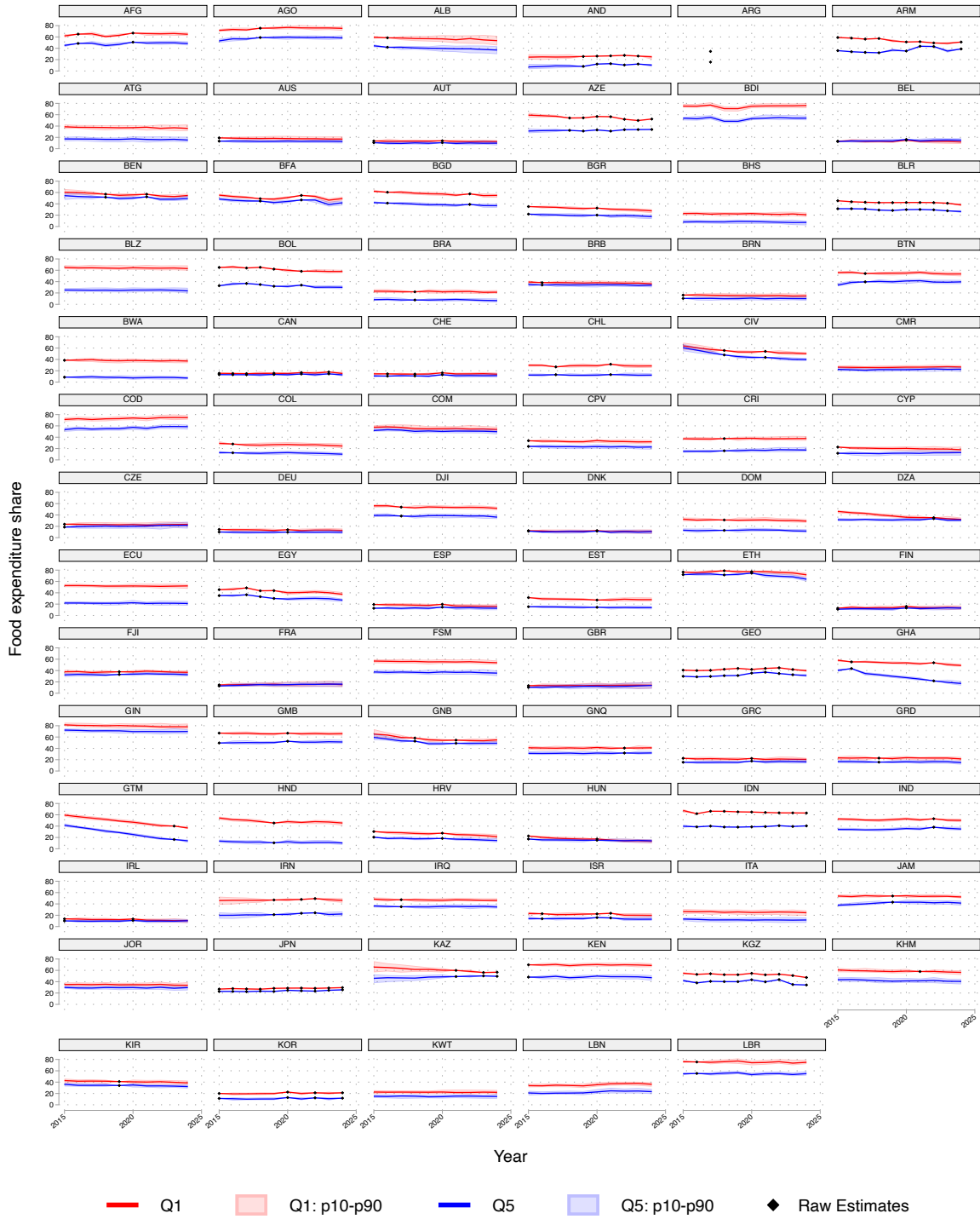
3 The figure shows mean food expenditure shares for the bottom quintile (Q1: red) and top quintile (Q5: blue) within each country  
4 and year. Where decile data are available, lighter lines additionally show the bottom decile (D1: light red) and top decile (D10:  
5 light blue). The within-country gap between the bottom and top quintiles  $FES(Q1) - FES(Q5)$  is plotted in green. Vertical black  
6 dashed lines denote the cutoff between surveys conducted before and after the onset of the COVID-19 pandemic, while grey dashed  
7 lines indicate the corresponding cutoff for the onset of the Russia–Ukraine war.



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2 **Fig. S9 | Trends in food expenditure shares at the bottom and top of the welfare distribution**  
 3 **for EUROSTAT countries.** The figure shows mean food expenditure shares for the bottom quintile (Q1: red) and top  
 4 quintile (Q5: blue) within each country and year. The within-country gap between the bottom and top quintiles  $FES(Q1) - FES(Q5)$   
 5 is plotted in green. Vertical black dashed lines denote the cutoff between surveys conducted before and after the onset of the  
 6 COVID-19 pandemic.

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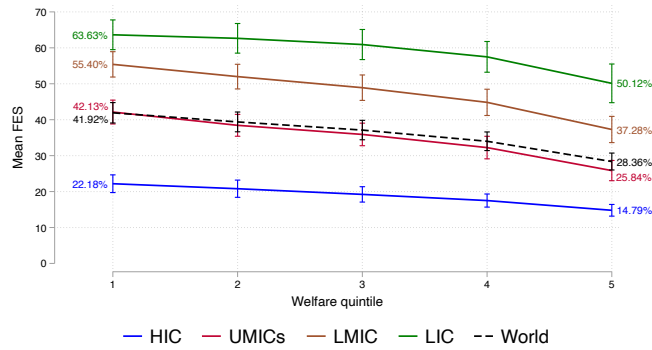
**Fig. S10 | Modelled trends in food expenditure shares across the welfare distribution, 2015–2024 (AFG-LBR).** The figure shows modelled mean food expenditure shares (FES) for the bottom quintile (Q1, red) and top quintile (Q5, blue) for each country from 2015 to 2024. Solid lines denote the median across 50 multiple imputations, while shaded areas represent the p10–p90 range of imputed values, capturing uncertainty arising from the imputation procedure. Points indicate observed (non-imputed) survey estimates. See ‘Methods’ in the main manuscript for details on the imputation procedure. x-axes reports calendar years. Panels are organized alphabetically by country code.



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2 **Fig. S11 | Modelled trends in food expenditure shares across the welfare distribution, 2015–**  
 3 **2024 (LCA-ZWE).** The figure shows modelled mean food expenditure shares (FES) for the bottom quintile (Q1, red) and  
 4 top quintile (Q5, blue) for each country from 2015 to 2024. Solid lines denote the median across 50 multiple imputations, while  
 5 shaded areas represent the p10–p90 range of imputed values, capturing uncertainty arising from the imputation procedure. Points  
 6 indicate observed (non-imputed) survey estimates. See ‘Methods’ in the main manuscript for details on the imputation procedure.  
 7 x-axes report calendar years. Panels are organized alphabetically by country code.

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3 **Fig. S12 | Modelled food expenditure shares by welfare quintile across income groups in**  
4 **2019.** The figure shows the modelled mean food expenditure shares (FES) by household welfare quintile, separately for high-  
5 income countries (HIC), upper-middle-income countries (UMIC), lower-middle-income countries (LMIC), and low-income  
6 countries (LIC). The dashed line reports the global average across all countries. Points represent quintile-specific means, and  
7 vertical bars indicate 95% confidence intervals. Percent values at the first and fifth quintiles denote mean modelled food  
8 expenditure shares in the lowest and highest consumption quintiles, respectively. See ‘Methods’ in the main manuscript for  
9 details on the imputation procedure.

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1 **Table S1 | Survey year used for cross-country comparison**

<b>ISO3 code</b>	<b>Survey year</b>	<b>ISO3 code</b>	<b>Survey year</b>	<b>ISO3 code</b>	<b>Survey year</b>	<b>ISO3 code</b>	<b>Survey year</b>
AFG	2020	DZA	2022	LBR	2016	QAT	2012/13
AGO	2018/19	ECU	2013/14	LCA	2005/06	ROU	2020
ALB	2016	EGY	2019/20	LKA	2019	RUS	2022
AND	2023	ESP	2020	LSO	2017/18	RWA	2023/24
ARG	2017/18	EST	2020	LTU	2020	SDN	2009
ARM	2024	ETH	2020/21	LUX	2020	SEN	2021
ATG	2005/06	FIN	2020	LVA	2020	SGP	2017/18
AUS	2015/16	FJI	2019/20	MAR	2022	SLB	2012/13
AUT	2020	FRA	2015	MDA	2024	SLE	2018
AZE	2024	FSM	2013/14	MDG	2021/22	SLV	2021
BDI	2013/14	GBR	2015	MDV	2019	SOM	2022
BEL	2020	GEO	2023	MEX	2024	SRB	2020
BEN	2021	GHA	2022	MHL	2019/20	SSD	2009
BFA	2021	GIN	2012	MKD	2015	SUR	2022
BGD	2022	GMB	2020	MLI	2021	SVK	2020
BGR	2020	GNB	2021	MLT	2015	SVN	2020
BHS	2013	GNQ	2022/23	MMR	2017	SWE	2015
BLR	2023	GRC	2020	MNE	2020	SWZ	2016/17
BLZ	2009	GRD	2018	MNG	2022	SYC	2013
BOL	2021	GTM	2023	MOZ	2022	TCD	2018/19
BRA	2018	HND	2019	MUS	2023	TGO	2021
BRB	2016/17	HRV	2020	MWI	2019	THA	2019
BRN	2015/16	HUN	2020	MYS	2022	TJK	2017
BTN	2017	IDN	2024	NAM	2015/16	TLS	2007/08
BWA	2015/16	IND	2022/23	NER	2021	TON	2021
CAN	2023	IRL	2020	NGA	2018/19	TUN	2015
CHE	2020/21	IRN	2022/23	NIC	2016	TUR	2020
CHL	2021/22	IRQ	2017	NLD	2020	TUV	2022
CIV	2021	ISR	2021	NOR	2020	TZA	2018
CMR	2014	ITA	2005	NPL	2015/16	UGA	2023/24
COD	2012	JAM	2019	NRU	2012/13	UKR	2020
COL	2016/17	JOR	2013	NZL	2023	URY	2017
COM	2014	JPN	2024	PAK	2024/25	USA	2024
CPV	2015	KAZ	2024	PAN	2017/18	UZB	2020
CRI	2018/19	KEN	2015	PER	2019	VCT	2007/08
CYP	2015	KGZ	2024	PHL	2023	VNM	2022
CZE	2015	KHM	2021	PLW	2023/24	VUT	2019/20
DEU	2020	KIR	2019/20	POL	2020	WSM	2018
DJI	2017	KOR	2024	PRT	2020	XKX	2015
DNK	2020	KWT	2013	PRY	2012	ZAF	2022/23
DOM	2018	LBN	2012	PSE	2016/17	ZWE	2017

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