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Abstract

We examine how structural reforms relate to income inequality. We employ many indicators of structural reforms and use data for market and net income inequality. The dataset includes up to 135 countries since 1960. The results do not suggest that market-oriented structural reforms were associated with rising income inequality in the full sample. Trade and financial liberalization were positively associated with income inequality in high-income countries. An mportant question is whether structural reforms benefit individual groups. We employ macro and micro data to investigate whether the income of low-income citizens increased to a smaller extent than the income of high-income citizens. The results suggest quite the opposite: market-oriented reforms were positively correlated with income shares of low-income citizens. We also examine citizens' support for structural reforms and show that low-income citizens are less likely to support market-oriented reforms than high-income citizens. It is conceivable that low-income citizens have misperceptions about how they benefit from market-oriented reforms.

JEL-Codes: D310, D630, E620, F020, O110, O150, P160.

Keywords: structural reforms, income inequality, economic growth, misperceptions, panel data, microeconomic data.

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1. Introduction

The nexus between structural reforms and income inequality has been examined for a long time. Theoretical and empirical approaches arrive at ambiguous conclusions, and the distributional effects of structural reforms are intensely discussed in public discourse. Advocates of a large size and scope of government believe that deregulating product, labor, and financial markets, privatizing state-owned companies, and reducing tariffs increase income inequality: entrepreneurs are expected to benefit from market-oriented structural reforms and, in turn, blue and white-collar workers lose out. Entrepreneurs increase their profits and, during rising competition between firms and manpower, put more pressure on blue and white-collar workers. High-skilled employees, who understand how to handle increasing competition, benefit as well. Consequently, the income of high-skilled citizens increases and the income of low-skilled citizens stagnates or decreases.

In contrast, advocates of a small size and scope of government do not believe that market-oriented structural reforms increase income inequality: market-oriented structural reforms are certainly likely to benefit high-income and high-skilled citizens, who may well expand and start new businesses, invest in new industries, and enjoy economic freedom and globalization. But expanding businesses and investing in new industries is also likely to promote economic growth. Increasing economic growth, in turn, also increases demand for low-skilled labor. Hence, income and employment of low-skilled citizens increase as well. When incomes of low-skilled citizens increase more than incomes of high-skilled citizens, income inequality may well decrease. Many studies describe theoretical channels through which individual types of structural reforms, particularly those fostering free trade and initiating polarization of labor markets, are expected to influence income inequality (e.g. Acemoglu and Autor 2011; Autor et al. 2013; Autor et al. 2014; Goos et al. 2014). We examine the nexus between market-oriented structural reforms ("reforms" in the following) and income inequality empirically.

The empirical evidence on how reforms relate to income inequality is inconclusive. Scholars have used panel data at the national and subnational level and often measured reforms by the economic freedom index. The effect of economic freedom on income inequality has been shown to vary across countries (e.g., Berggren 1999; Scully 2002; Ashby and Sobel 2008; Bergh and Nilsson 2010; Apergis et al. 2015; Apergis and Cooray 2017; Bennett and Nikolaev 2017; De Soysa and Vadlamannati 2019a). Especially liberalization of financial markets was associated with rising income inequality (De Haan and Sturm 2017; Furceri and Loungani 2018; Furceri et al. 2019).

We investigate how reforms relate to income inequality and employ data that has not yet been used when examining the reform-inequality nexus: the reform data compiled by Sachs and Werner (1995), which was updated and revised by Wacziarg and Welch (2003, 2008). Reforms are measured by trade liberalization, overcoming a socialist economic system, and a state monopoly in controlling exchange rates. The baseline model includes up to 135 countries in the period between 1960 and 2000. We also use data on reforms of product and labor markets, financial market reforms, and financial globalization (Chinn and Ito 2008; OECD 2009a,b; Duval and Furceri 2018; Gygli et al. 2019; Vitale et al. 2019).

Our results do not suggest that reforms were correlated with income inequality in the full sample, but trade and financial liberalization were positively associated with income inequality in high-income countries. Focusing on overall income inequality, however, hides the fact that reforms may well benefit individual groups: while scholars often examine the distributional effects of reforms altogether, the question of which groups benefit from reforms has been widely ignored.

Reforms – including product market deregulation, financial and trade liberalization, etc. – have also been shown to promote economic growth. We employ macro and micro data to investigate whether the income of low-income citizens increased to a similar extent as the income of high-income citizens. The results suggest quite the opposite: reforms were positively correlated with

income shares of low-income citizens. We also examine citizens' support for reforms and show that low-income citizens are less likely to support reforms than high-income citizens. It is conceivable that low-income citizens have misperceptions about how they benefit from reforms.

2. Previous studies

2.1 Economic freedom

Prominent measures of reforms are the economic freedom indices. Economic freedom is pronounced, for example, when tax burdens and government spending is low, property rights are protected, the judiciary is efficient, labor markets are hardly regulated, and countries enjoy free trade. These attributes are typically aggregated into indices of economic freedom. Indices of economic freedom, however, differ in their definition of "economic freedom", the choice of variables (components) used to reflect the definition, and the rule to aggregate the components into a unidimensional measure of economic freedom. For instance, the Economic Freedom Index of the Fraser Institute distinguishes five areas: size of government, legal system and property rights, sound money, freedom to trade internationally, and regulation. These areas are measured by 42 variables, which are all aggregated with equal weights into the final indicator of economic freedom. The Economic Freedom Index of the Heritage Foundation, instead, distinguishes four areas: the rule of law, size of government, regulatory efficiency, and open markets. The index uses 12 variables to measure these areas, which are aggregated using equal weights for each variable.

The economic freedom indices help to examine causes and consequences of reforms, but their utilization in panel data studies comes with some drawbacks when investigating the link between reforms and inequality. In particular, the equal weighting scheme results in redundancy in the measurement of economic freedom, as many of the components are correlated. The redundancy of composite measures has been shown to bias parameter estimates in empirical regressions (Gründler and Krieger 2019).

To measure income inequality, scholars use market and net Gini coefficients – net means to consider inequality after government intervention, i.e., after taxes and transfers. Scholars regress the Gini coefficients on the economic freedom indices. Early studies suggest that increasing economic freedom was associated with decreasing income inequality (Berggren 1999; Scully 2002; Clark and Lawson 2008). Later studies found that increasing economic freedom may also be associated with increasing income inequality (Bergh and Nilsson 2010; De Soysa and Vadlamannati 2019a). It is conceivable that the relationship between economic freedom and income inequality may vary across countries. The evidence is mixed, however, on whether income inequality is pronounced/small at low/high levels of economic freedom (Carter 2006; Apergis and Cooray 2017; Bennett and Nikolaev 2017). Inferences on the economic freedom-inequality nexus across countries depend on which countries are included and which econometric methods are employed. Economic freedom is also measured at the subnational level. In the US states, for example, economic freedom has been shown to be negatively associated with income inequality (e.g. Ashby and Sobel 2008).

2.2 Financial liberalization

Empirical studies investigate the nexus between financial liberalization and income inequality (De Haan and Sturm 2017; Furceri and Loungani 2018; Furceri et al. 2019). Financial liberalization is expected to influence income inequality through manifold channels (Furceri and Loungani 2018). First, when financial liberalization promotes risk-sharing in consumption smoothing and all citizens in a society enjoy the benefits from risk-sharing and consumption smoothing, income inequality will decrease. In societies where only some citizens have access to credit markets (usually well-educated and high-income citizens), income inequality is likely to increase. Second, financial liberalization is expected to influence the likelihood of financial crises. It is not quite clear how financial crises influence income inequality: high-income citizens are likely to lose in financial crises because they possess wealth that deteriorates in value.

Financial crisis may also coincide with recessions that usually concern low-income citizens to a large extent. Rising inequality has also been shown to amplify financial crises (Kumhof et al. 2015). Third, capital account openness may well give rise to a decrease in the labor share of income: the more open an economy is, the more likely producers are to transfer capital and production abroad.

The empirical studies suggest that financial liberalization has increased income inequality. De Haan and Sturm (2017) employ data for 121 countries over the period 1975-2005. Financial liberalization is measured by two variables: the index of Abiad et al. (2010) that considers changes in credit controls, interest rate controls, entry barriers for banks, etc., and the sum of four subcomponents of the Economic Freedom Index (Fraser) that measure financial liberalization. An important issue with the study by De Haan and Sturm (2017) is that market income inequality (before taxes and transfers) is used. The results suggest that financial liberalization was positively associated with market income inequality, especially in democracies and in countries with high financial development. Furceri and Loungani (2018) employ data for 149 countries over the period 1970-2010. Financial liberalization is measured by the Chinn and Ito (2008) index, a de jure indicator of capital account restrictions. Income inequality is measured in market values (before taxes and transfers). The results suggest that financial liberalization was positively correlated with income inequality. Furceri et al. (2019) pursue a similar empirical strategy and employ data for 149 countries over the period 1970-2015. The results confirm a positive correlation between financial liberalization and market income inequality. In industrialized countries, financial liberalization was negatively correlated with the share of labor income.

The studies portraying a positive correlation between financial liberalization and market income inequality are in line with studies on the globalization-inequality nexus (Dreher and Gaston 2008; Bergh and Nilsson 2010; Gozgor and Ranjan 2017; Dorn et al. 2018; Lang and Tavares 2018; Pleninger et al. 2019).

3. Income inequality and reforms

3.1 Data on reforms

To measure reforms, we follow Billmeier and Nannicini (2013) and use the binary reform indicator by Sachs and Werner (1995), which was updated and revised by Wacziarg and Welch (2003, 2008). The updated dataset includes 135 countries in the period between 1960 and 2000.[1] At least one of the following requirements must be met for a country to be classified as fully protected in a given year: "(a) the average tariffs exceed 40%, (b) nontariff barriers cover more than 40% of its imports, (c) it has a socialist economic system, (d) the black-market premium on the exchange rate exceeds 20%, and (e) many of its exports are controlled by a state monopoly" (Billmeier and Nannicini 2013: 985). The advantage of the binary reform measure is that it reduces redundancy and arbitrariness in the. Effects based on the binary index are also easy to interpret, because country-years are either classified as reformed or non-reformed.

Figure 1 shows how reforms have developed over the period 1960-2000. In 1960, 30 of the 135 countries were classified as market-oriented. Over the period 1960-1985, reforms took place in only nine countries. Between 1985 and 1996, however, reforms were proceeding quite continuously, coinciding with the rapid progress in democratization during that period (Gründler and Krieger 2016, 2018, 2019), which is often referred to as the "third wave of democratization". As a result, 100 countries were classified as market-oriented in 1996. In the year 2000, 103 countries were described as market-oriented.

Figure 2 shows reforms per continent. Before 1985, reforms almost only took place in Asia, with little development in America, Europe, and Africa. After 1985, countries in all continents except Europe experienced reforms. The fall of the Iron Curtain – followed by transition from dictatorship to democracy and from socialism to market economies in many European countries

[1] Summary statistics can be found in Appendix Table A1.

between 1989 and 1992 – is a prime example of a reform wave where several countries implemented reforms at the same time.

3.2 Data on income inequality

We use data from version 6.2 of the Standardized World Income Inequality Database (SWIID) (Solt 2009, 2016), which was made available in May 2018. The dataset includes Gini indices of income inequality before and after taxes and transfers and is available for 162 countries. The SWIID uses data from the Luxembourg Income Study (LIS) – the gold standard of inequality data – and computes inequality series comparable to the LIS via a missing data algorithm. Figures 3 and 4 show market and net Gini coefficients for all available countries in the year 2000. Considering market income inequality in Figure 3 suggests that Gini coefficients were pronounced among most of the Western world, Southern Africa, and especially in South America. Interestingly, many countries in Northern Africa and in Southeast Asia exhibit lower market-based income inequality. Net income inequality is, however, small in Europe and North America, while South America, Southern Africa, and countries in Southeast Asia exhibit higher net income inequality (Figure 4). The difference in market and net income inequality is based on extensive redistribution mechanisms in the Western world, which substantially reduce the Gini coefficients of market incomes.

Figures 5-7 show Gini indices of market incomes over time in the entire sample, in a subsample of OECD countries, and distinguished by countries in the individual continents. Market inequality increased after 1965, especially in OECD countries. This trend has strengthened since the early 1980s, an observation that has received much attention, particularly for the United States (Piketty and Saez 2003; Dorn and Schinke 2018). In Asia and America, income inequality increased quite constantly. In Africa, income inequality decreased from 1983 onward. In Europe, income inequality increased over the period 1960-1975, decreased over the period

1976-1989, and increased over the period 1990-2000. Even though the Gini coefficient increased over time in Asia, its absolute value of 0.42 in 2000 is the lowest among all continents. In contrast, America has the highest market inequality, as measured by a Gini coefficient above 0.5 in 2000.

3.3 Unconditional correlations

Figure 8 shows the unconditional correlation between reforms and market income inequality (upper graph) and between reforms and disposable income inequality (lower graph). We observe almost no correlation between reforms and market inequality in the full sample (coefficient of correlation: -0.028). Differences are, however, visible at the continent level. Differentiated by continents, Figure 8 shows the mean level of the market Gini coefficients for countries that experienced reforms (=1) and countries that did not experience reforms (=0). The difference between countries that experienced reforms and those countries that did not experience reforms in America and Asia is nearly zero, while income inequality appears to be higher for countries that experienced reforms in Europe. For Oceania and Africa, the opposite holds true. The results are less pronounced when considering the relationship between reforms and net incomes. In particular, the difference between inequality of countries that experienced reforms and countries that did not experience reforms becomes much smaller. This observation suggests that welfare systems in Europe – which are more generous than in other parts of the world – compensate for adverse effects from reforms.

3.4 Panel data model

We estimate a panel data model of the form

$$\text{Ineq}_{itp} = \beta D_{it} + \gamma \boldsymbol{X}_{it} + \eta_i + \zeta_t + \varepsilon_{it}, \qquad (1)$$

where the dependent variable $\text{Ineq}_{itp}, p \in \{\text{Gini market}; \text{Gini net}\}$ is the Gini coefficient of income inequality, D_{it} is the binary reform indicator, $\boldsymbol{X}_{it}$ is a matrix of covariates, η_i is a country

fixed effect that accounts for heterogeneity in time-invariant factors across countries (e.g. institutions, geography, culture), ζ_t is a fixed time effect that absorbs period-specific shocks (e.g., natural disasters, crises) and cross-national trends in inequality (see Figures 5-7), and ε_{it} is the idiosyncratic error. Our main explanatory variable D_{it} is one in years in which an individual country implemented reforms, and zero otherwise. Hence, a positive parameter estimate $\hat{\beta}$ indicates a positive relationship between reforms and income inequality.

Reforms may be correlated with time-varying factors that also influence income inequality, which may cause a bias in the estimated parameter on reforms in Equation (1). Related studies that use Gini coefficients as dependent variables show that income inequality in an individual country is influenced by (i) country-specific factors that differ across countries (e.g., minimum wages, household structures, assortative mating) and (ii) international trends that influence many countries in a similar manner. We exploit variation across countries and over time and therefore need to control for international trends that are likely to influence many countries in a similar manner. Empirical studies have shown that the most important cross-country predictors of inequality are technological progress (Autor and Dorn 2013; Jaumotte et al. 2013), globalization (Dreher and Gaston 2008; Bergh and Nilsson 2010; Antras et al. 2017; Dorn et al. 2018; Lang and Tavares 2018; Pleninger et al. 2019), and education (Gregorio and Lee 2002). These cross-country predictors of inequality are also likely to be correlated with reforms. Figures (3) and (4) do not suggest that there are notable differences in inequality across development levels. These differences are important to consider when richer countries are more likely to implement reforms.

To control for education, we use data from Barro and Lee (2013). Since the data is available only in 5-year steps, we interpolate the data to observe education levels in each year. Data on GDP levels and technology are obtained from the Penn World Tables, Version 9.1 (Feenstra et.

al, 2015). We also include the KOF Globalisation Index (Dreher 2006 and Gygli et al. 2019).[2] Inequality levels are taken from the SWIID (Solt 2009, 2016), and the indicator of government ideology is from the Database of Political Institutions (DPI) 2017.

A concern about our strategy is that inequality may give rise to reforms, which would result in a biased parameter estimate β. We cannot rule out the problem of endogeneity, but two observations suggest that the endogeneity bias is not substantial. First, earlier studies have shown that reforms are not influenced by income inequality (e.g. Beck et al. 2010). Second, the year of reforms and income inequality in the year prior to reforms are hardly correlated (left-hand side of Figure 9). Similarly, reforms and the change in inequality five years before reforms are hardly correlated (right-hand side of Figure 9).

3.5 Results

Table 1 shows the baseline panel model results. Panel A reports the results of reforms on market inequality; Panel B shows the results when net inequality is used as the dependent variable. Reforms influence income inequality before and after taxes and transfers in different manners, and it is important to distinguish between income inequality before and after taxes and transfers: the estimated parameter of market inequality captures the effect of reforms on market forces. Reforms push wages more towards the marginal productivity of labor, which is likely to increase inequality. Inequality of net incomes, instead, also captures the public policy reaction followed by reforms.

The point estimate of the reform measure on market inequality is basically zero when no fixed country and fixed year effects are included, an estimate that is likely to be driven by heterogeneity across countries and across time. When we account for unobserved cross-country heterogeneity, the point estimate is positive and statistically significant at the 1% level (Column 2). It

[2] On the consequences of globalization as measured by the KOF index see Potrafke (2015).

lacks statistical significance, however, once we control for fixed country and time effects and renders it negative (Column 3). Column (4) and (5) add covariates to the model to rule out any possibility that the results are driven by time-varying factors that simultaneously influence inequality and reforms. Data on control variables are available for a common sample of 99 countries. The point estimate of reforms remains negative and lacks statistical significance. In line with previous studies, the level of globalization and technology are both positively correlated with income inequality, while education seems to be negatively correlated with income inequality. Log GDP per capita lacks statistical significance.

Panel B shows the results when net inequality is used as the dependent variable. When fixed country and year effects are excluded, reforms are negatively correlated with net inequality. Against the backdrop of the point estimate of reforms on market inequality in the same specification (Column 1 in Panel A) being basically zero, the negative correlation between reforms and net inequality may be based on increasing public redistribution that accompanies reforms. Once we control for time-invariant unobservables, the point estimate of reforms is positive and statistically significant at the 1% level. The effect lacks statistical significance in Columns (3)-(5) when we include fixed time effects and time-varying covariates.

Table 2 shows results for subsamples per continent. In Europe, reforms and market income inequality were positively correlated. The point estimate of the reform variable lacks statistical significance, however, when fixed country and fixed year effects and controls are included. In Asia, America, and Africa, reforms and market income inequality were hardly correlated. The results are similarly mixed when we use the Gini coefficient of net incomes as the dependent variable (not reported).

3.6 Feedback effects on government redistribution

A major question is whether reforms influence net or market income inequality, or in other words, how reforms influence public income redistribution. Empirical studies often measure

public income redistribution by the difference between net and market income inequality (e.g., Gozgor and Ranjan 2017; Gründler and Köllner 2017 and 2018; Dorsch and Maarek 2019). It is not clear how reforms are expected to influence public income redistribution. On the one hand, reforms may well decrease public income redistribution when domestic governments must implement reforms during competition between national governments that gives rise to a small size and scope of government (system competition – e.g., Sinn 1997 and 2003). On the other hand, reforms may well increase public income redistribution when domestic governments wish to flank market-oriented industrial policies with expansionary social policies. It is conceivable that citizens demand expansionary social policies to compensate for deregulating product and labor markets. See also the globalization-welfare state nexus (e.g., Schulze and Ursprung 1999; Ursprung 2008; Meinhard and Potrafke 2012; Potrafke 2019).

Table A2 replicates our baseline estimates using government redistribution as the dependent variable. We use the "pre-post approach" to measure public redistribution of incomes, which measures the size of the tax and transfer system (Redist_{it}) via the difference of market and net inequality (see Gozgor and Ranjan 2017; Gründler and Köllner 2017 and 2018; Dorsch and Maarek 2019):

$$\text{Redist}_{it} = \text{Gini(M)}_{it} - \text{Gini(N)}_{it}.$$

Panel A reports results based on this measure of absolute income redistribution. Panel B relates the redistribution measure to the initial level of market inequality, measuring the extent to which the tax and transfer systems lower market inequality (relative income redistribution):

$$\text{Redist(rel)}_{it} = \frac{\text{Redist}_{it}}{\text{Gini(M)}_{it}} = \frac{\text{Gini(M)}_{it} - \text{Gini(N)}_{it}}{\text{Gini(M)}_{it}}.$$

The results show that reforms are positively associated with income redistribution when fixed country and fixed year effects are excluded, but are negatively related to income redistribution when fixed country effects and fixed year effects are included. The negative point estimate is statistically significant at the 5% level and remains statistically significant when we include control variables. Inferences do not change when we reduce the sample to OECD countries (not reported). Taken together, the results on the redistribution-reform nexus suggest that the distinction between market and net inequality matters. The question of which measures is best suited for empirical studies depends on the research focus.

3.7 Conditional effects

The effect of reforms may depend on the development level at the time when countries implement reforms. We therefore augment the empirical model by including an interaction term between logged GDP per capita and reforms (Table 3). We show results for market inequality (Panel A) and net inequality (Panel B). The results suggest that reforms are negatively correlated with income inequality in poorer countries and positively correlated in richer countries. The point estimates of the reform variable are statistically significant at the 1% level when fixed effects are included and remain statistically significant at least at the 10% level when we add control variables. The point estimates of the reform variable are qualitatively similar when net inequality is used as the dependent variable (Panel B); they are numerically smaller and standard errors are larger. The smaller point estimates of the reform measure are likely to be based on redistribution policies of the government.

An explanation for the results conditional on GDP may well be the direct effects of reforms that give rise to a higher volume of trade with the rest of the world. In richer countries, this is often directly accompanied by the outsourcing of production to low-wage countries. Lower and moderately qualified workers are particularly negatively affected by outsourcing of production, resulting in an increasing income inequality in those countries. Autor et al. (2013) describe trade-

induced inequality effects by investigating how rising Chinese import competition influences local US labor markets. For low-income countries, it is the other way around: insourcing of production gives rise to more jobs and higher wages, which especially benefits lower and moderately qualified workers. As a result, income inequality within low-income countries decreases.

We have also estimated subsamples for high-income, low-income and middle-income countries' GDP per capita values in the year 2000 (the end of our sample). Countries are classified as low-income countries if they are located in the lowest 25% percentile (GDP per capita smaller than 2.800 PPS) and high-income countries if they belong to the top 25% percentile (GDP per capita higher than 18.182 PPS). As expected, the point estimates of the reform measure are positive for high-income and middle-income countries (Tables 4 and 6). The point estimate is negative for low-income countries, but lacks statistical significance (Table 5). Again, the estimates are qualitatively similar but less pronounced if we use net inequality instead (not reported).

Government ideology is also likely to influence the nexus between reforms and income inequality. Government ideology has been shown to predict both reforms (e.g. Potrafke 2010 and 2013; Bjørnskov and Potrafke 2011, 2012, 2013) and income inequality (e.g. Scheve and Stasavage 2009; Dorn and Schinke 2018). We include dummy variables for leftwing and rightwing governments as measured by Cruz et al. (2018). Table 7 shows the results. Column (1) shows the correlation of leftwing governments and market inequality excluding control variables and column (2) adds control variables. Column (3) and (4) perform the same analysis with rightwing governments. The results suggest that market income inequality was lower under leftwing than center governments and higher under rightwing than center governments. These results suggest that government ideology is associated with inequality levels before taxes and transfers. The point estimate of the reform measure is negative and statistically significant when government ideology is included. The government ideology variables are, however, not

available for the full sample. We have therefore estimated the baseline model for the same samples as in Table 7 excluding government ideology: the point estimate of the reform variable is negative and statistically significant. Thus, the change in the point estimates compared to Table 1 is not based on government ideology being a confounding factor but should be attributed to the sample size. This result corroborates the postulation that the nexus between reforms and income inequality is sensitive to the sample of countries included.

3.8 Other types of reforms

It is conceivable that individual types of reforms and income inequality are not related in the same manner. We use three alternative types of reforms: product market reforms, labor market reforms, and financial liberalization. The OECD provides data on product market reforms (OECD 2009a; Vitale et al. 2019), employment protection (OECD 2009b) and minimum wages (OECD 2009c). This data has been used to examine both determinants and consequences of product and labor market reforms (e.g. Potrafke 2010a, 2010b, 2017; Duval and Furceri 2018; Furceri and Loungani 2018; Campos et al. 2019; Furceri et al. 2019). For financial liberalization, we use the latest update of the Chinn-Ito index from September 2019 (see Chinn and Ito 2008 for the original index and a description of the methodology). The Chinn-Ito index has been employed to study the causes and consequences of financial openness (e.g. Furceri and Loungani 2018 and Furceri et al. 2019).

Table 8 shows the results when we use product market regulations as the main explanatory variable. We examine six types of product market regulations: a general index on the extent of regulation (Column 1), the ECTS index that summarizes regulatory provisions in seven sectors (telecoms, electricity, gas, post, rail, air passenger transport, and road freight; Column 2), the

extent of state control (Column 3), barriers to entrepreneurship (Column 4), protection of incumbents (Column 5), and administrative burdens for startups (Column 6).[3] The table reports estimates of our preferred baseline specification – considering country and year fixed effects – for market inequality (Panel A) and net inequality (Panel B). With one exception (the effect of state control reforms on net inequality), deregulating product markets tends to be negatively associated with income inequality. The point estimate of the reform variable is negative and statistically significant in the case of the general product market reform indicator (at the 10% level) and the ECTS indicator (at the 1% level).

Table 9 shows the results when we use labor market regulations. We disentangle five types of labor market reforms: collective dismissal (Column 1), regular employment contracts (Column 2), temporary employment contracts (Column 3), and two measures on the generosity of the minimum wage relative to the wage distribution (Columns 4 and 5). The results suggest that labor market reforms are hardly related to income inequality, with one exception: regulations on collective dismissal are negatively related to income inequality. The results regarding collective dismissal regulation, however, rest on a small sample of observations and should hence be taken with caution.

We also examine time lags in how product and labor market reforms relate to income inequality, with little effect on inferences (not reported). The robustness of the results to including time lags suggests that reforms are the result of lengthy policy debates and can hence be anticipated by economic agents.

Table 10 shows how financial liberalization relates to income inequality. The table replicates our baseline specifications (Table 1) using the Chinn-Ito indicator to measure reforms. The results suggest that there is a positive and statistically significant relationship between deregulating financial markets and inequality of market incomes, which lacks statistical significance

[3] Some of the data is collected in five-year steps only. We interpolate this data to obtain a sufficiently large sample of country-year observations.

once we include controls. The results are qualitatively similar when we use net inequality as the dependent variable.

The index of Wacziarg and Welch (2003, 2008) considers trade liberalization to a large extent. To examine the robustness of our results, we also re-estimate the baseline models using the de jure and de facto trade globalization measures of the KOF Globalisation Index as proxies for trade liberalization. The results show estimates comparable to our baseline models (Tables A3 and A4 in the appendix).[4] The results are also comparable when we restrict the sample to match the sample composition of our baseline regressions (not reported).

Using the alternative measures for individual types of reforms does not suggest a pronounced pattern between reforms and income inequality.

4. Do the rich benefit more than the poor from reforms?

4.1 Reforms and growth

Empirical studies show that reforms promote economic growth. This holds for manifold types of reforms including product market deregulation (Bouis et al. 2019) and reforms that fostered trade and deregulation of financial markets (Dreher 2006; Billmeier and Nannicini 2013; Gygli et al. 2019). Trade and financial liberalization tend to promote economic growth quite fast (Dreher 2006; Gygli et al. 2019).[5] It takes some time, though, until product market deregulation increases production and employment: gradual increases are observed after some 3 to 4 years, large effects after 5 years (Duval and Furceri 2018; Bouis et al. 2019). Labor market deregulation has been shown to increase employment (Duval and Furceri 2018).

[4] To guarantee comparability with the baseline results, we replicate the baseline specifications as close as possible and re-use the overall KOF Globalisation Index as a control variable. Inferences do not change when we exclude the overall KOF Globalisation Index. The advantage of using the overall KOF Globalisation Index as a control variable is that it disentangles effects based on globalization per se (including, e.g., interpersonal globalization, cultural globalization, social globalization) and effects based on globalization in trade.

[5] While financial liberalization tends to have positive growth effects, the growth effect of the financial sector depends on the development level of countries (Gründler 2019).

When reforms promote economic growth and trade and financial liberalization tend to increase market inequality in rich countries, the major question is whether high-income citizens benefit more than low-income citizens. The question of whether growth is "pro-poor" or not has been examined for a long time. Dollar and Kraay (2002) show that when average incomes rise, incomes of the poor (defined as individuals in the lowest 20% of income distribution) increase proportionately. Fifteen years later, the authors conclude that "*growth is still good for the poor*" (Dollar et al. 2016). Other scholars do not believe that growth is "pro-poor" (Lübker et al. 2002) and show that the "pro-poorness" of growth depends on initial factor endowments (Ravaillon and Datt 2002).

Economic growth induced by reforms may have different "pro-poor" effects compared with growth caused by other determinants. On the one hand, the "free market view" holds that free markets predominantly benefit the rich (Piketty and Saez 2006), suggesting that reforms mainly increase incomes of top-income earners. On the other hand, economic freedom may help the poor to access schooling and health (De Soysa and Vadlamannati 2019a) and may hence be beneficial in fighting poverty and political repression (De Soysa and Vadlamannati 2019b).[6] In Sweden, for example, reforms did not retrench the welfare state (Bergh and Erlingsson 2009). We examine how structural reforms relate to citizens' income shares: we use both macro data at the country level and micro data at the household level.

4.2 Country-level evidence

We examine how reforms relate to the citizens' income share by estimating the following model

$$\Phi_{\mathrm{qit}} = \beta D_{it} + \gamma \boldsymbol{X}_{it} + \eta_i + \zeta_t + \varepsilon_{it}, \qquad (2)$$

where Φ_{qit} describes the income share of the q-th income percentile in country i at time t, D_{it} is our binary indicator of reform, and η_i and ζ_t are country and year fixed effects. We include

[6] On how economic freedom promotes human rights see De Soysa and Vadlamannati (2013). For a survey on the consequences of economic freedom see also Berggren (2003).

the same control variables in the matrix $\boldsymbol{X}_{it}$ as in the baseline model. Income shares are available from the World Bank (2019) for quintiles and deciles. However, the largest part of the increase in inequality in the OECD countries has been caused by developments at the very top of income distribution (Roine et al. 2009; Alvaredo et al. 2013). We use data from the SWIID Version 4.0 to examine how reforms affect top-income earners.[7]

Table 11 shows the relationship between reforms and the income share of the lowest 20% (Column 1), the lowest 10% (Column 2), the top 20% (Column 3), the top 10% (Column 4), and the top 1% (Column 5). Panel A reports estimates with fixed country and year effects excluding control variables; Panel B reports the same specifications including control variables. The results show that reform is positively correlated with the income share of individuals at the bottom of the income distribution. This effect is particularly pronounced for individuals in the lowest 20%, and weaker for individuals in the lowest 10%. In contrast, reforms are negatively correlated with the income shares of top-income earners. This effect is particularly strong for the top 20% and the top 10% and less pronounced for the top 1%. The results are stronger when we include control variables in Panel B, the exception being that the point estimate of reforms on the income share of the top 1% lacks statistical significance.

We also use the financial liberalization by Chinn and Ito (2008) as a main explanatory variable (Table 12). In contrast to our baseline reform measure, the point estimate of the financial liberalization measure tends to be negatively correlated with the income level of the lowest 10% and the lowest 20%, and tends to be positively correlated with the income share of top-income earners – they lack statistical significance, however. We have also included both the baseline reform and the financial liberalization measure in one specification (Panel C). We observe little

[7] The availability of data on top-income shares is limited. While the gold standards are the Luxembourg Income Study (LIS) and the World Inequality Database (WID), the limited number of country-year observations between 1960 and 2000 renders the utilization of these data sources in our analysis impossible. We therefore use estimates from the SWIID, which have been available until version 4. As some of these numbers are estimates, the results based on top-income earners should be interpreted with caution.

change in the effect of the baseline reform measure on income shares at the top and the bottom. However, the positive point estimate of financial liberalization on the income shares of the top 10% and the top 20% becomes statistically significant in Panel C.

4.3 Household-level evidence

The results on the country level do not suggest that reforms primarily benefit the rich. Data availability of income shares at the country level is limited, however. In particular, inference is difficult to make if data availability is biased towards countries with better national accounts and statistical offices, giving rise to a sample selection bias. Also, income shares may be measured with less precision on a macro level than on a micro level.

We use household level data to more accurately estimate how reforms relate to the financial situation of households. We use micro data from the World Value Survey (WVS). The advantages of using the WVS are (i) its unparalleled coverage of countries, households, and years and (ii) the inclusion of many socioeconomic characteristics that we use to examine how reforms relate to the households' financial situations. The WVS data is collected in six waves (a seventh wave is being collected at the time of this study) and is representative for about 90% of the world population. The first sixth waves of the WVS data were conducted between 1981 and 2014. To examine the microeconomic effects of reforms, we combine the reform data with the individual-level data of the WVS.

Data on the financial situation of households is available for about 300,000 individuals, but the limited availability of the reform data over time (data is available only until the year 2000) reduces the sample size. The full sample includes 70,810 households. Our sample is quite balanced between household-year observations with and without reforms. For 48,959 of the included households (roughly two thirds of the observations), reforms were in place at the time the WVS survey took place. For another 21,851 households, the corresponding country had not

experienced reforms. Summary statistics of our micro-economic variables are provided in Table A1 in the appendix.

We estimate empirical models of the form

$$f_{ithw} = \lambda D_{it} + \boldsymbol{X}_{ithw}\boldsymbol{\beta} + \eta_i + \gamma_t + \psi_w + \varepsilon_{ithw}, \quad (2)$$

where f_{ithw} is the reported financial situation (measured on a scale of 1 to 10) of household h in country i at year t included in the wth wave of the WVS. The countries in the WVS differ in manifold aspects, including in development level, political institutions and history, and cultural factors. We account for heterogeneity in unobservables by including fixed country effects η_i. We also control for cross-national shocks and trends by including year fixed effects γ_t. To account for potential differences in the design of the WVS across waves, we also include wave fixed effects ψ_w. The idiosyncratic error is described by ε_{ithw}. The financial situation of households may well be predicted by time-varying observables. We include time-varying observables (education, employment status, marital status, age, children in household, income levels, etc.) in the vector of individual controls $\boldsymbol{X}_{ithw}$.

We also examine how reforms relate to income inequality conditional on the income level of households by augmenting Equation (3) with an interaction term between the income level (I_{ithw}) and D_{ithw}, i.e.,

$$f_{ithw} = \lambda D_{ithw} + \alpha(D_{ithw} \times I_{ithw}) + \delta I_{ithw} + \boldsymbol{X}_{ithw}\boldsymbol{\beta} + \eta_i + \gamma_t + \psi_w + \varepsilon_{ithw}. \quad (3)$$

The results are reported in Table 13. Column (1) reports the point estimate of reforms on the financial situation of households including country, year, and wave fixed effects. The point estimate of reforms is negative and statistically significant at the 1% level, suggesting that reforms on average worsen the financial situation of households. Column (2) adds socioeconomic

control variables to account for omitted factors that influence the financial situation of households. These factors include the position on the national income distribution (on a scale of 1 to 10), education, age, children in household, and dummy variables for students, unemployed, and widowed. The point estimate of the reform measure declines from -0.902 to -0.253 but remains statistically significant at the 1% level. Columns (3)-(4) replicate Columns (1)-(2) and include interaction terms between reforms and the household's position on the national income distribution. The effect of reforms is positive once these interaction terms are included: reforms tend to increase the financial situation of households at the bottom of the national income distribution. The interaction term between reforms and the income position is negative, showing that the positive effect of reforms is negative for households with greater initial income levels. The effects are statistically significant. Taken together, the findings suggest that reforms improve the financial situation of low-income households and aggravate the financial situation of high-income households.

Do the results suggest that reforms benefit low-income citizens to the full extent? Columns (5) and (6) examine the conditional effect of reforms relative to employment status, both with (Column 5) and without (Column 6) control variables. The models include interaction terms between reforms and the unemployment dummy variable. While the reform effect is again negative and statistically significant, the interaction term is also negative. This indicates that financial liberalization is negatively correlated with the financial situation of unemployed citizens.

Table 14 replicates the specifications of Table 13 using financial liberalization as the main explanatory variable. Inferences change: in contrast to the baseline reform measure, financial liberalization is positively associated with the average financial situation of households. Again, the results of the models including interaction terms suggest that (i) the gains from reforms are larger for low-income households than for high-income households and (ii) employed individ-

uals benefit more than unemployed individuals. Our sample includes more than 220,000 households. The results are comparable to the baseline model when we estimate the model for the sample of the baseline model including 70,810 households.

An important question is whether our results are driven by the development level of the countries in which the respondents live. To account for differences in economic development, we included country-level fixed effects in all our specifications. However, it is conceivable that high growth rates in individual countries of our sample confound the empirical results. We examine whether inferences depend on development levels by (i) re-estimating the models of Tables 13 and 14 for individual levels of economic development and (ii) including triple interaction terms with the log of real per capita GDP (not reported). None of these analyses suggests that the effects of reforms depend on the initial development level.

A concern about our results may be that national income levels are not comparable across countries. For instance, individuals in the 10^{th} percentile in France are richer than individuals in the 10^{th} percentile in Thailand or Nigeria. A similar concern relates to changes over time. There have been remarkable increases in average incomes during the period we examine (1981-2000), and incomes of the 10^{th} percentile in France are higher in 2000 than they were in the early 1980s. To account for these concerns, we compute "homogenized" income levels comparable across countries and time by multiplying the income decile of households by the log level of per capita GDP at the time the household was surveyed. We then estimate the effect of reforms on the financial situation of households, allowing for nonlinearity by using triple interactions. The results are shown in Figure 10. The results for the full sample suggest that even when we use homogenized incomes, poorer households gain disproportionately from reforms. The loss of reforms compared with the counterfactual of no reforms is largest for incomes at the middle of the distribution and declines for top-income earners.

A prominent argument is that reforms, particularly those targeting trade liberalization, are particularly beneficial for the rich in advanced economies (Foellmi and Oechslin 2010). The lower

panel of Figure 10 shows estimates of the same analysis for country-years that exceed the sample mean ("high-income countries"): the gain of households at the bottom of income distribution is larger. Also, there is no statistically significant effect at the top of income distribution, indicating that in richer countries, top-income earners do not face negative income effects from reforms. The loss remains, however, substantial for the middle class.

Our results corroborate studies on the "polarization of the labor market", which find that trade and globalization benefit the poor and – to a greater extent – the rich, and yield detrimental effects on income and employment of the middle class (Autor and Dorn 2013; Goos et al. 2014; Autor et al. 2015; Acemoglu et al. 2016). These theories describe gains from trade depending on the degree to which specific tasks can be offshored, showing that tasks of moderately skilled individuals are particularly exposed to substitution from foreign labor (Acemoglu and Dorn 2011). In line with the theoretical arguments, Figure 10 shows that "polarization effects" are particularly pronounced in the sample of high-income countries.

The microeconomic results are obtained using survey data. A drawback is that this data is top-coded and does not include the super-rich, i.e., the top 1%, the top 0.1% or the top 0.01%. Income inequality is driven, however, by the top 1% and even more so by the top 0.1%, and less so by developments at the middle and the bottom of income distribution (Alvaredo et al. 2017; Atkinson et al. 2011; Piketty and Saez 2006). We cannot examine how reforms influence super-rich citizens, and it is likely that super-rich citizens gain disproportionately from reforms. What is more, our results are based on income earners, but it may well be that high net worth individuals gain the most from reforms. High net worth individuals, however, are not necessarily listed among the top-income earners that we include in our database. Unfortunately, reliable data on wealth inequality is scarce and available only for years after the main reform episode.

4.4 Who supports reforms?

An important question is who supports reforms (e.g. Fischer et al. 2017; Horpedahl 2019). If the primary motive of policymakers is to be re-elected, reforms will only be implemented if most of the electorate supports these reforms, the distributional consequences of reforms notwithstanding.

We investigate which individuals support reforms. We use survey data from the Eurobarometer 84.3 and Eurobarometer 85.1 provided by the European Commission (2019), which were collected in 2015 and 2016. The datasets contain microeconomic data of individuals from 36 European countries. The sample measuring support of reforms includes 52,402 individuals. We use question QA10 of the Eurobarometer to measure individuals' support of reforms. The question asks whether the term reform "brings to mind something very positive, fairly positive, fairly negative, or very negative". We code respondents' answers on a scale of 1 to 4 to obtain a measure of reform support.

Our empirical model takes the following form

$$R_{ith} = \rho \text{Income}_{ith} + \boldsymbol{X}_{ith}\boldsymbol{\beta} + \eta_i + \gamma_t + \varepsilon_{itw}, \quad (4)$$

where R_{itw} is the degree to which individuals support reforms, Income_{itw} is the income quintile of household h of country i in year t, $\boldsymbol{X}_{ith}$ are the socioeconomic controls we used in the previous estimates. To rule out the results being driven by individual characteristics of the included households' counties (development level, culture, political institutions) we include country fixed effects η_i. We also include year fixed effects γ_t to rule out the results being driven by specific events that took place at the time households were surveyed.

Table 15 reports the results. In Column (1), we include country and year fixed effects and explain support of reforms only by the income quintile. The results show that higher incomes are positively related to the support of reforms. This effect is statistically significant at the 1% level.

Columns (2) adds control variables to examine the effects of socioeconomic characteristics on reform support. The results of the income quintile are robust when we include socioeconomic reforms and remains statistically significant at the 1% level. In Column (3), we add the self-assessed political preferences of individuals on a scale of 1 (very leftwing) to 10 (very rightwing). Again, the results of the income quintile remain unchanged. The point estimate of the political ideology variable, however, is positive and statistically significant at the 1% level, suggesting that citizens favoring rightwing parties tend to support reforms to a larger extent than citizens favoring leftwing parties. Columns (4) and (5) report results based on subsamples of die-hard leftwing (political preferences between 1 and 4) and die-hard rightwing citizens (political preferences between 7 and 10). In both cases, the positive effect of the income quintile remains statistically significant at the 1% level.

We re-estimate model (4) using dummy variables for the occupational status of respondents. The results are shown in Figure 11. The estimates show that individuals with high-skilled occupations that can be expected to earn high wages are in favor of reforms. Also, business owners and managers support reforms. In contrast, manual workers and unskilled individuals do not support reforms.

Our results based on the survey data from the Eurobarometer corroborate previous results that were based on survey data from the United States (Horpedahl 2019). Against the backdrop of especially the shares of low-income citizens increasing after reforms (section 4.2 and 4.3), the results describing which citizens support reforms are intriguing. One would expect low-income citizens to support reforms when their income shares increase after reforms. We conjecture, however, that low-income citizens have misperceptions about how reforms influence citizens' income shares. It is conceivable that low-income citizens believe that reforms increase the income shares of high-income citizens.

5. Conclusion

Structural reforms have hardly been associated with income inequality – we arrived at this result using macro data for up to 135 countries since the year 1960. We have used manifold indicators for reforms and data on market and net income inequality. In high-income countries, trade and financial liberalization were associated with income inequality. A major question is who benefits from reforms. We have employed macro data on citizens' income shares and micro survey data on individual-level incomes based on the World Value Surveys. The results show that income (shares) of especially low-income citizens increased after reforms. This finding is intriguing because low-income citizens do not support market-oriented policies and reforms: we have used micro data provided by the Eurobarometer and corroborated previous studies based on US micro data. By contrast, low-income citizens tend to believe that they do not benefit at all from reforms – a view that seems to be based on misperceptions.

References

Abiad, A., Detragiache, E., and T. Tressel (2010): A new database of financial reforms, *IMF Staff Papers* 57, 281-302.

Acemoglu, D. and D. Autor (2011): Skills, Tasks and Technologies: Implications for Employment and Earnings, in: Card, D. and O. Ashenfelter (eds.): *Handbook of Labor Economics*, Volume 4, Part B, 2011, pp.1043-1171.

Acemoglu, D., D. Autor, D. Dorn, G.H. Hanson, and B. Price (2016): Import competition and the great US employment sag of the 2000s, *Journal of Labor Economics* 34, 141-198.

Alvaredo, F., A.B. Atkinson, T. Piketty, and E. Saez (2013): The top 1 percent in international and historical perspective, *Journal of Economic Perspectives* 27, 3-20.

Alvaredo, F., L. Chancel, T. Piketty, E. Saez, and G. Zucman (2017): Global inequality dynamics: New findings from WID.world, *American Economic Review* 107, 404-409.

Antras, P., T.C. Fort, and F. Tintelnot (2017): The margins of global sourcing: Theory and evidence from US firms, *American Economic Review* 107, 2514-2564.

Apergis, N. and A. Cooray (2017): Economic freedom and income inequality: Evidence from a panel of global economies – a linear and a non-linear long-run analysis, *Manchester School* 85, 88-105.

Apergis, N., Dincer, O., and J.E. Payne (2015): Economic freedom and income inequality revisited: Evidence from a panel error correction model, *Contemporary Economic Policy* 32, 67-75.

Ashby, N.J. and R.S. Sobel (2008): Income inequality and economic freedom in the US states. *Public Choice* 134, 329-346.

Atkinson, A.B., T. Piketty, and E. Saez (2011): Top incomes in the long run of history. *Journal of Economic Literature* 49, 3-71.

Autor, D. and D. Dorn (2013): The growth of low-skill service jobs and the polarization of the US labor market, *American Economic Review* 103, 1553-1597.

Autor, D., Dorn, D., and G.H. Hanson (2013): The geography of trade and technology shocks in the United States, *American Economic Review* 103, 220-225.

Autor, D., Dorn, D., Hanson, G.H., and J. Song (2014): Trade adjustment: worker-level evidence, *Quarterly Journal of Economics* 129, 1799-1860.

Barro, R. and J.W. Lee (2013): A new data set of educational attainment in the world, 1950–2010, *Journal of Development Economics* 104, 184-198.

Beck, T., R. Levine, and A. Levkov (2010): Big bad banks? The winners and losers from bank deregulation in the United States, *Journal of Finance* 65, 1637-1667.

Bennett, D.L. and B. Nikolaev (2017): On the ambiguous economic freedom-inequality relationship, *Empirical Economics* 53, 717-754.

Berggren, N. (1999): Economic freedom and equality: friends or foes? *Public Choice* 100, 203-223.

Berggren, N. (2003): The benefits of economic freedom – a survey. *The Independent Review* 8, 193-211.

Bergh, A. and G.Ó. Erlingsson (2009): Liberalization without retrenchment: Understanding the consensus on Swedish welfare state reforms. *Scandinavian Political Studies* 32, 71-93.

Bergh, A. and T. Nilsson (2010): Do liberalization and globalisation increase income inequality? *European Journal of Political Economy* 26, 488-505.

Bjørnskov, C. and N. Potrafke (2011): Politics and privatization in Central and Eastern Europe. *Economics of Transition* 19, 201-230.

Bjørnskov, C. and N. Potrafke (2012): Political ideology and economic freedom across Canadian provinces. *Eastern Economic Journal* 38, 143–166.

Bjørnskov, C. and N. Potrafke (2013): The size and scope of government in the US states: does party ideology matter? *International Tax and Public Finance* 20, 687–714.

Billmeier, A. and T. Nannicini (2013): Assessing economic liberalization episodes: A synthetic control approach, *Review of Economics and Statistics* 95, 983-1001.

Bouis, R., R. Duval, and J. Eugster (2019): How fast does product market reform pay off? New evidence from non-manufacturing industry deregulation in advanced economies. *Journal of Comparative Economics*, forthcoming.

Campos, N., V. Eichenauer, and J.-E. Sturm (2019): Close encounters of the European kind: Structural reforms, economic integration and sectoral heterogeneity, *mimeo*.

Chinn, M. and H. Ito (2008): A new measure of financial openness, *Journal of Comparative Policy Analysis* 10, 309-322.

Carter, J.A. (2006): An empirical note on economic freedom and income inequality. *Public Choice* 130, 163-177.

Clark, J.R. and Lawson, R.A. (2008): The impact of economic growth, tax policy and economic freedom on income inequality. *Journal of Private Enterprise* 24, 23-31.

Cruz., C., Keefer, P., and C. Scartascini (2018): Database of Political Institutions 2017 (DPI 2017), Inter-American Development Bank. Numbers for Development.

De Gregorio, J. and J.-W. Lee (2002): Education and income inequality: New evidence from cross□country data. *Review of Income and Wealth* 48, 395-416.

De Haan, J. and J.-E. Sturm (2017): Finance and income inequality: A review and new evidence. *European Journal of Political Economy* 50, 171-195.

De Soysa, I. and K.C. Vadlamannati (2013): Do pro-market economic reforms drive human rights violations? An empirical assessment, 1981–2006. *Public Choice* 155, 163-187.

De Soysa, I. and K.C. Vadlamannati (2019a): Does free-market capitalism inhibit income equality and equitable access to opportunity? An empirical test, 1990-2016. *mimeo*.

De Soysa, I. and K.C. Vadlamannati (2019b): Do we need a just economy, or just a good one? Inequalities, economic freedom and political repression, 1975-2015. *UCD Working Papers in Law, Criminology & Socio-Legal Studies No. 8*.

Dollar, D. and A. Kraay (2002): Growth is good for the poor. *Journal of Economic Growth* 7, 195-225.

Dollar, D., T. Kleineberg, and A. Kraay (2016): Growth is still good for the poor. *European Economic Review* 81, 68-85.

Dorn, F., Fuest, C., and N. Potrafke (2018): Globalization and income inequality revisited. *CESifo Working Paper No. 6859.*

Dorn, F. and C. Schinke (2018). Top income shares in OECD countries: the role of government ideology and globalisation. *World Economy* 41, 2491-2527.

Dorsch, M.T. and P. Maarek (2019): Democratization and the conditional dynamics of income redistribution. *American Political Science Review* 113, 385-404.

Dreher, A. (2006): Does globalisation affect growth? Evidence from a new index of globalisation. *Applied Economics* 38, 1091-1110.

Dreher, A. and N. Gaston (2008): Has globalisation increased inequality? *Review of International Economics* 16, 516-536.

Duval, R. and D. Furceri (2019): The effects of labor and product market reforms: The role of macroeconomic conditions and policies. *IMF Economic Review* 66, 31-69.

Feenstra, R., R. Inklaar, and M. Timmer (2015): The next generation of the Penn World Table, *American Economic Review* 105, 3150-3182.

Fischer, M., B. Kauder, N. Potrafke, and H.W. Ursprung (2017): Support for free-market policies and reforms: Does the field of study influence students' political attitudes? *European Journal of Political Economy* 48, 180-197.

Foellmi, R. and M. Oechslin (2010): Market imperfections, wealth inequality, and the distribution of trade gains, *Journal of International Economics* 81, 15-25.

Furceri, D. and P. Loungani (2018): The distributional effects of capital account liberalization. *Journal of Development Economics* 130, 127-144.

Furceri, D., P. Loungani, and J.D. Ostry (2018): The aggregate and distributional effects of financial globalization: Evidence from macro and sectoral data. *Journal of Money, Credit and Banking*, forthcoming.

Goos, M., A. Manning, and A. Salomons (2014): Explaining job polarization: routine-biased technological change and offshoring, *American Economic Review* 104, 2509-2526.

Gozgor, G. and P. Ranjan (2017): Globalisation, inequality, and redistribution: Theory and evidence. *World Economy* 40, 2704-2751.

Gründler, K. and S. Köllner (2017): Determinants of governmental redistribution: Income redistribution, development levels, and the role of perceptions, *Journal of Comparative Economics* 45, 930-962.

Gründler, K. and S. Köllner (2018): Culture, diversity and the welfare state, *CESifo Working Paper* No. 6856.

Gründler, K. and T. Krieger (2016): Democracy and growth: Evidence from a machine learning indicator, *European Journal of Political Economy* 45, 85-107.

Gründler, K. and T. Krieger (2018): Machine learning indices, political institutions, and economic development, *CESifo Working Paper* No.6930.

Gründler, K. and T. Krieger (2019): Should we care (more) about data aggregation? Evidence from the democracy-growth-nexus, *CESifo Working Paper* No.7480.

Gründler, K. (2019): The vanishing effect of finance on economic development, *Macroeconomic Dynamics*, forthcoming.

Gygli, S., Haelg, F., Potrafke, N., and J.-E. Sturm (2019): The KOF Globalisation Index – revisited. *Review of International Organizations,* forthcoming.

Horpedahl, J. (2019): Do the poor want to be regulated? Public opinion surveys on regulation in the United States, 1981-2002. *Public Choice* 180, 27-42.

Jaumotte, F., S. Lall, and C. Papageorgiou (2013): Rising income inequality: Technology, or trade and financial globalization? *IMF Economic Review* 61, 271-309.

Lang, V. and M. Tavares (2018): The distribution of gains from globalisation. *IMF Working Paper No. 18/54.*

Lübker, M., G. Smith, and J. Weeks (2002): Growth and the poor: A comment on Dollar and Kraay. *Journal of International Development* 14, 555-571.

Meinhard, S. and N. Potrafke (2012): The globalisation-welfare state nexus reconsidered. *Review of International Economics* 20, 271-87.

OECD (2019a): Indicators of Product Market Regulation, Organisation for Economic Co-operation and Development, Paris, 2019.

OECD (2019b): OECD Indicators of Employment Protection, Organisation for Economic Co-operation and Development, Paris, 2019.

OECD (2019c): OECD Employment and Labor Market Statistics, Organisation for Economic Co-operation and Development, Paris, 2019.

Piketty, T. and E. Saez (2003): Income inequality in the United States, 1913–1998, *Quarterly Journal of Economics* 118, 1-41.

Piketty, T. and E. Saez (2006): The evolution of top incomes: A historical and international perspective, *American Economic Review* 96, 200-205.

Pleninger, R., Sturm, J.-E., and J. de Haan (2019): The "forgotten" middle class – an analysis of the effects of globalization, *Working Paper*.

Potrafke, N. (2010a): Does government ideology influence deregulation of product markets? Empirical evidence from OECD countries. *Public Choice* 143, 135–155.

Potrafke, N. (2010b): Labor market deregulation and globalization: empirical evidence from OECD countries. *Review of World Economics (Weltwirtschaftliches Archiv)* 146, 545-571.

Potrafke, N. (2013): Economic freedom and government ideology across the German states. *Regional Studies* 47, 433-449.

Potrafke, N. (2015): The evidence on globalisation. *World Economy* 38, 509-552.

Potrafke, N. (2017): Partisan politics: The empirical evidence from OECD panel studies. *Journal of Comparative Economics* 45, 712-750.

Potrafke, N. (2019): The globalisation-welfare state nexus: Empirical evidence from Asia. *World Economy* 42, 959-974.

Ravaillon, G. and M. Datt (2002): Is India's economic growth leaving the poor behind? *Journal of Economic Perspectives* 16, 89-108.

Roine, J., J. Vlachos, and D. Waldenström (2009): The long-run determinants of inequality: What can we learn from top income data? *Journal of Public Economics* 93, 974-988.

Sachs, J. D. and A. Warner (1995): Economic reform and the process of global integration. *Brookings Papers in Economic Activity* 1, 1-118.

Scheve, K. and D. Stasavage (2009): Institutions, partisanship, and inequality in the long run. *World Politics* 61, 215-253.

Schulze, G.G. and H.W. Ursprung (1999): Globalisation of the economy and the nation state. *World Economy* 22, 295–352.

Scully, G.W. (2002): Economic freedom, government policy, and the trade-off between equity and economic growth. *Public Choice* 113, 77-96.

Sinn, H.-W. (1997): The selection principle and market failure in systems competition. *Journal of Public Economics* 66, 247-274.

Sinn, H.-W. (2003): *The new systems competition.* Blackwell, Oxford.

Solt, F. (2009): Standardizing the world income inequality database. *Social Science Quarterly* 90, 231-242.

Solt, F. (2016): The standardized world income inequality database. *Social Science Quarterly* 97, 1267-1281.

Ursprung, H.W. (2008): Globalisation and the welfare state. in: S.N. Durlauf and L.E. Blume (Ed.), *The New Palgrave Dictionary of Economics*, Second edition. Cologne: Palgrave Macmillan.

Vitale, C. et al. (2019): 2018 Update of the OECD PMR Indicators and Database – Policy Insights for OECD Countries, OECD Economics Department Working Papers, forthcoming.

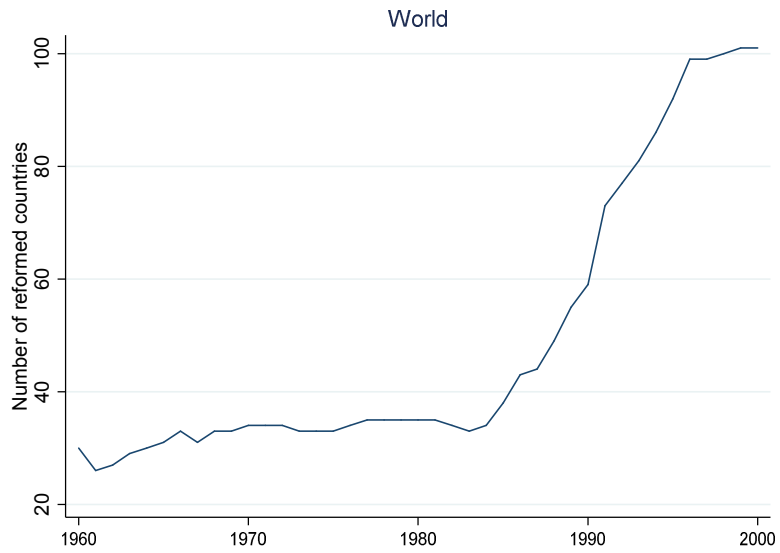
Wacziarg, R. and K.H. Welch (2003): Trade liberalization and growth: New evidence. *NBER Working Paper No. 10152.*

Wacziarg, R. and K.H. Welch (2008): Trade liberalization and growth: New evidence. *World Bank Economic Review* 22, 187-231.

World Bank (2019): World Development Indicators Database (WDI), Washington, D.C

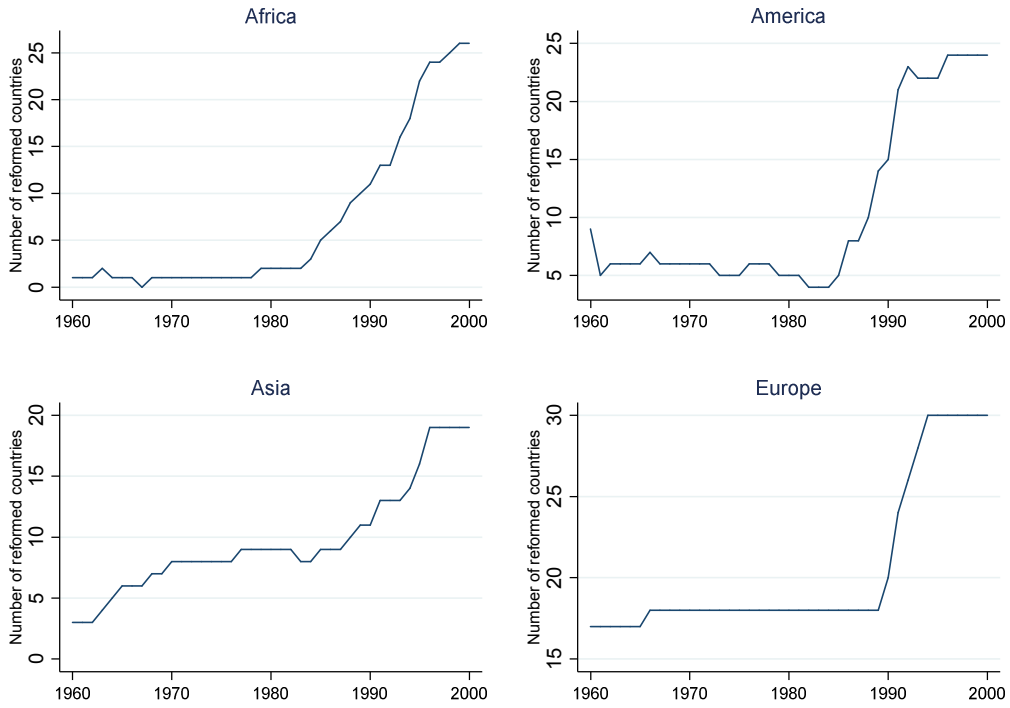
Figures

Figure 1 Number of countries experiencing reforms over time (1960-2000), world average



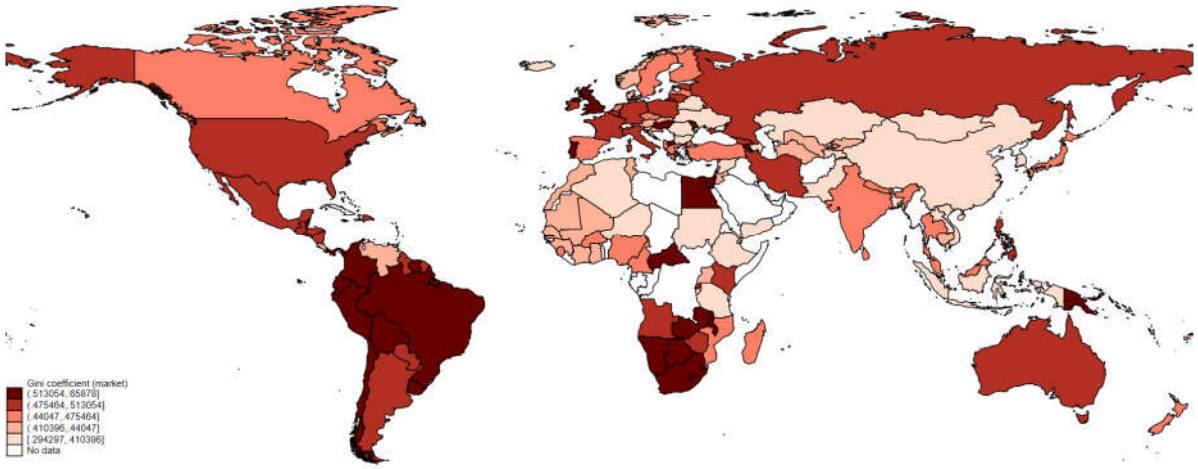
Note: Figure shows the development of reformed countries. Data source: Wacziarg and Welch (2008).

Figure 2 Number of countries experiencing reforms over time (1960-2000), by continents



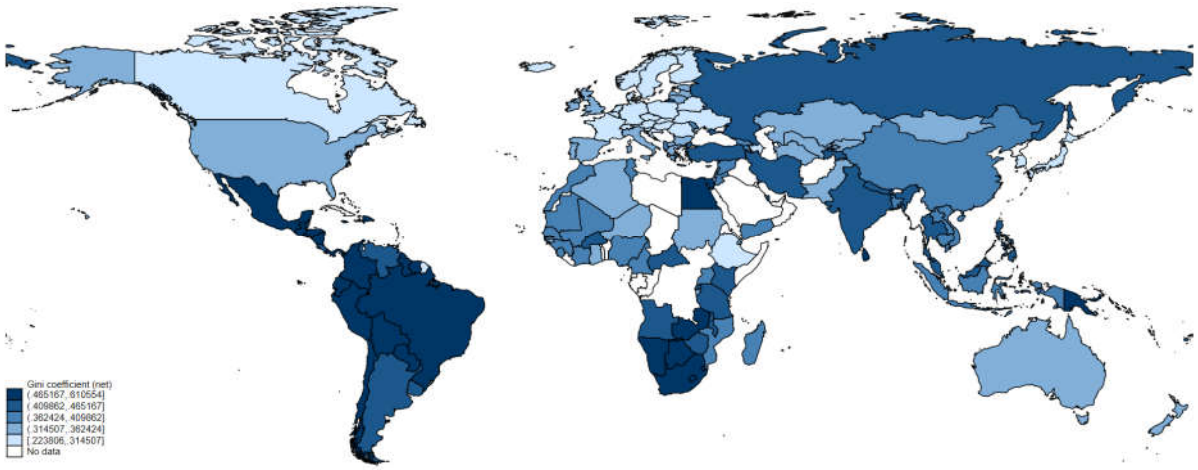
Note: Figure shows the development of reformed countries. Data source: Wacziarg and Welch (2008). Classification of continents in reference to the World Bank.

Figure 3 Inequality in the world, measured by Gini coefficients of market incomes in 2000



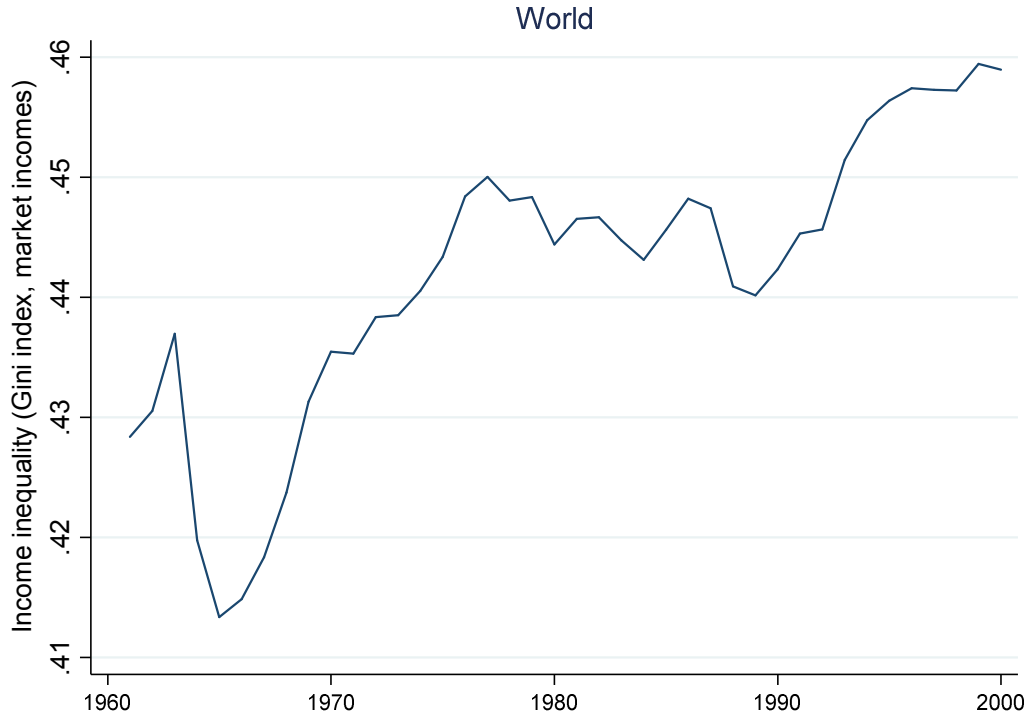
Note: Figure shows levels of market inequality in the year 2000. Data source: SWIID 6.2.

Figure 4 Inequality in the world, measured by Gini coefficients of disposable incomes in 2000



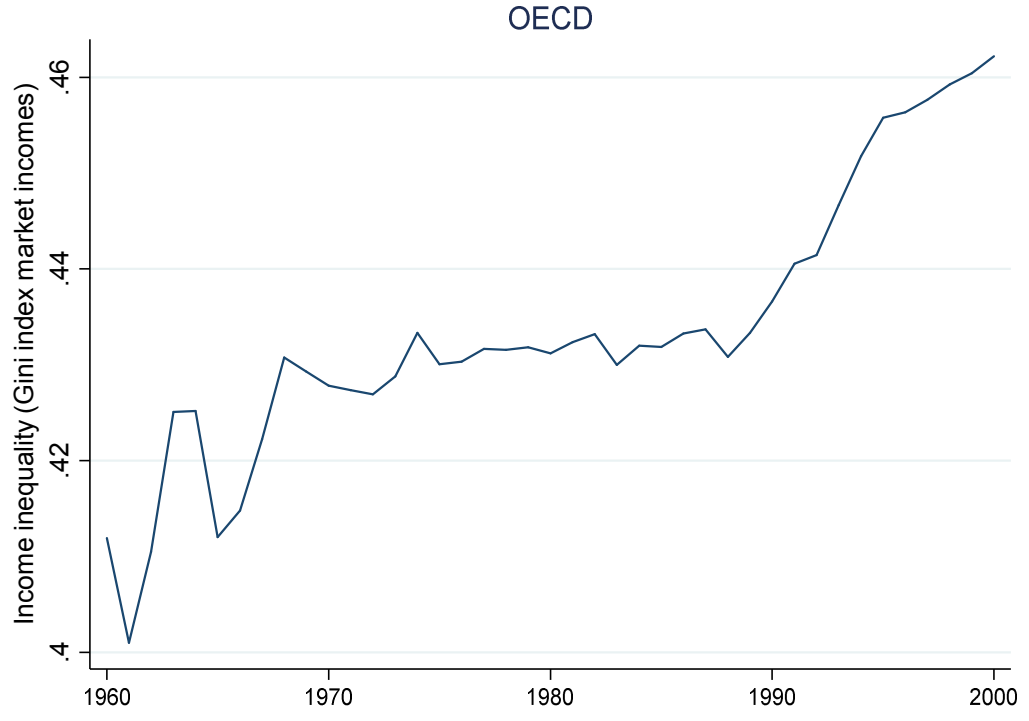
Note: Figure shows levels of market inequality in the year 2000. Data source: SWIID 6.2.

Figure 5 Development of market inequality over time (1960-2000), world average



Note: Figure shows the development of market inequality. Data source: SWIID 6.2.

Figure 6 Development of market inequality over time (1960-2000), OECD average

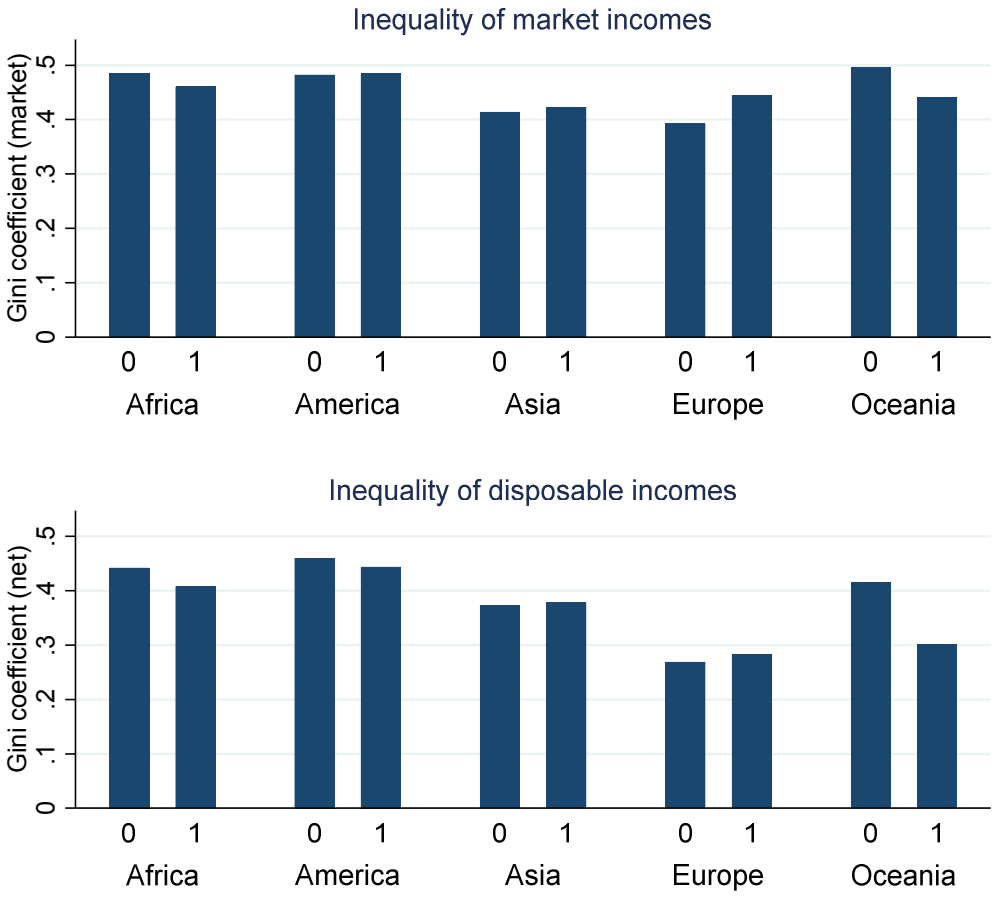


Note: Figure shows the development of market inequality. Data source: SWIID 6.2.

Figure 7 Development of market inequality over time (1960-2000), by continents

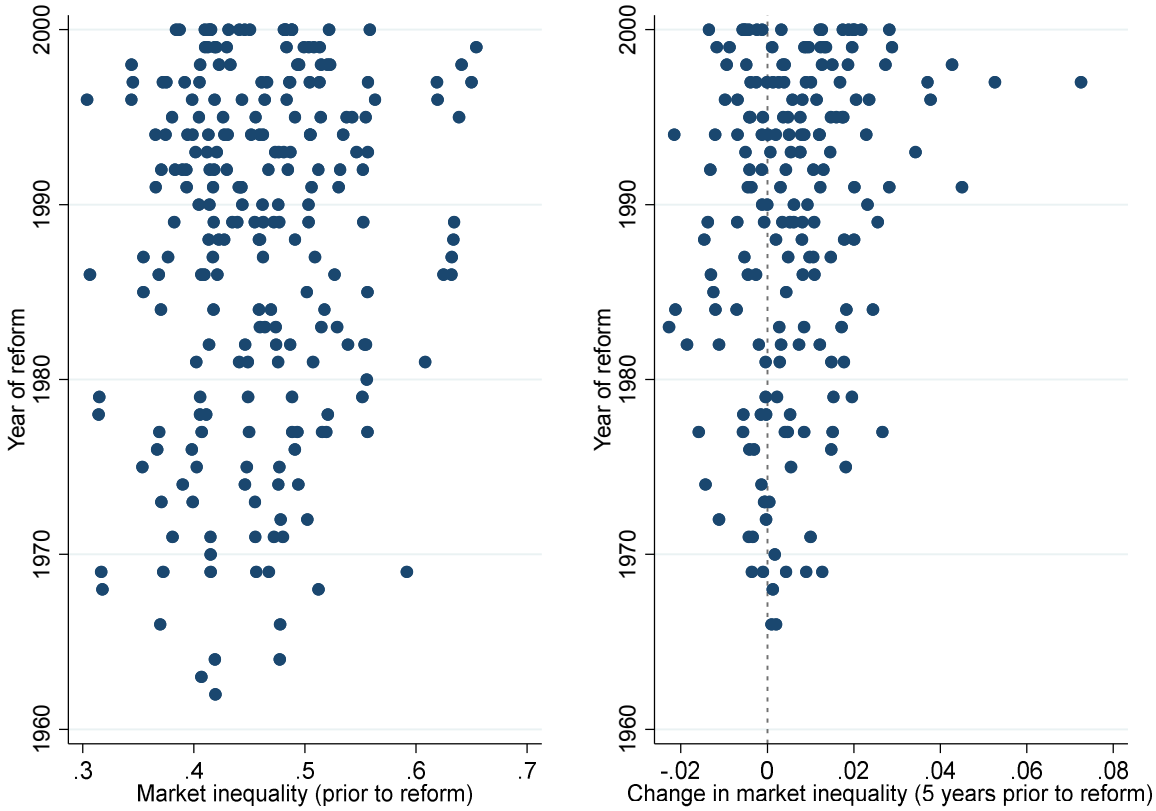
Note: Figure shows the development of market inequality. Data source: SWIID 6.2.

Figure 8 Descriptive relationship between income inequality and reforms



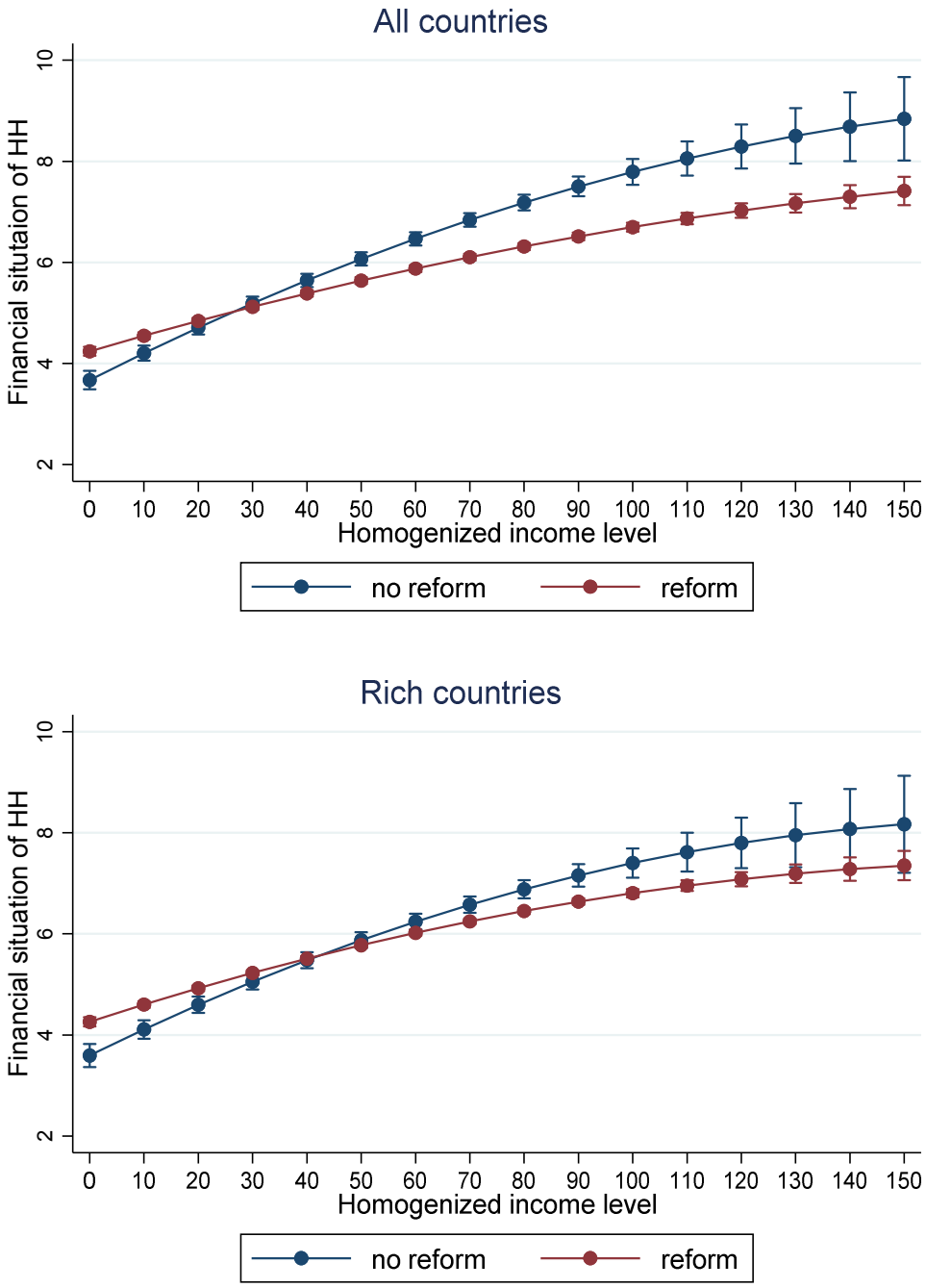
Notes: Figure shows the mean level of the market Gini coefficients for countries that experienced reforms (=1) and countries that did not experience reforms (=0).

Figure 9 Correlations between market Gini coefficients and year of reforms



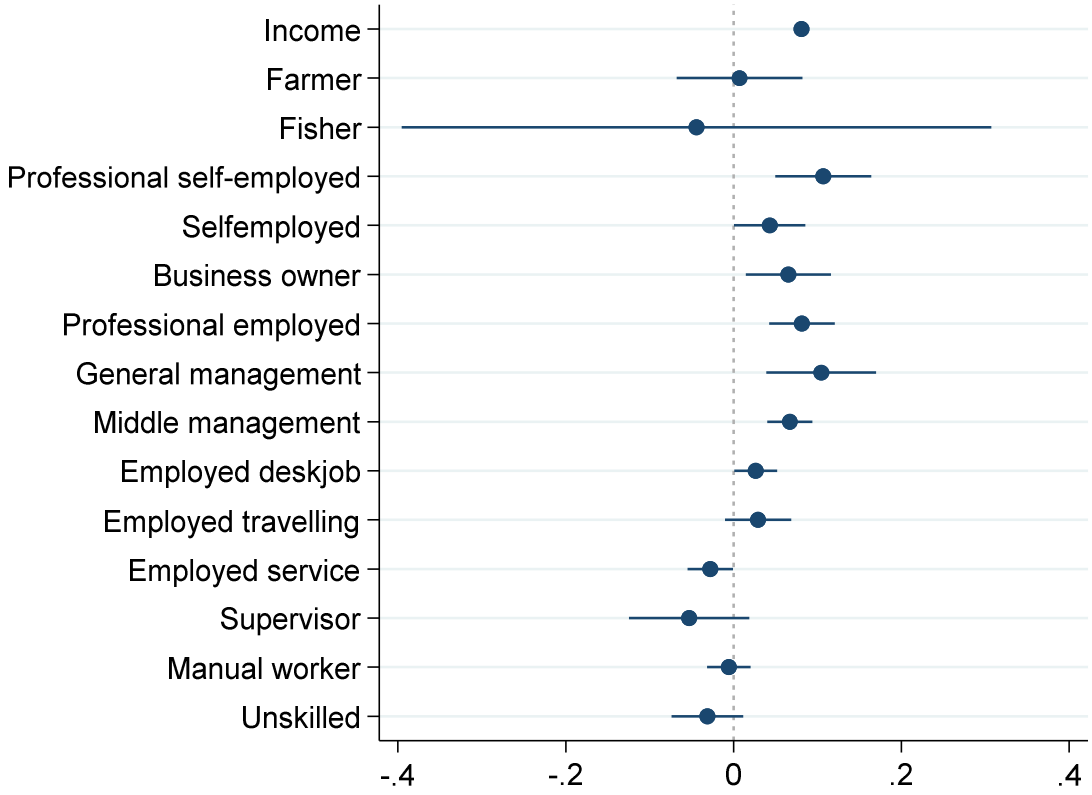
Note: Figure shows the correlation between the reform year and market inequality prior to market-oriented reforms (left-hand graph) and the change in market inequality five years prior to market-oriented reforms (right-hand graph). The y-axis illustrates trends and variations across time, the x-axis shows variations across different levels of market inequality and changes of market inequality. Given the substantial increase in market inequality over time in our sample (reflected by larger values when climbing the y-axis), there is no systematic correlation between previous levels and changes of inequality and market-oriented reforms. Data source: SWIID 6.2.

Figure 10 The effect of reforms on the financial situation of households at different levels of homogenized incomes



Note: Figure shows the effect of reforms on the financial situation of households. "Homogenized income levels" is the income decile of households multiplied by the log level of GDP per capita of the households' country at the time the household was surveyed. Homogenizing incomes enables an objective comparison across countries and across years.

Figure 11 Support of reforms by occupation



Note: Figure shows the marginal effects of reform support for different occupations. The underlying empirical model replicates the model of Equation (4) and includes dummy variables for different occupations of individuals. Horizontal lines represent confidence intervals.

Tables

Table 1: Reforms and income inequality---Baseline regression results, full sample. Dependent variables: Gini coefficient of market and net incomes.

	CONTROLS EXCLUDED			CONTROLS INCLUDED	
	(1)	(2)	(3)	(4)	(5)
	Panel A: Dependent variable: Gini of market incomes				
Reform	-0.0012	0.0143***	-0.0035	-0.0020	-0.0024
	(0.0109)	(0.0041)	(0.0047)	(0.0048)	(0.0048)
Education				-0.0124***	-0.0123**
				(0.0048)	(0.0049)
Globalization				0.0010*	0.0011**
				(0.0005)	(0.0005)
Technology				0.0249**	0.0262*
				(0.0117)	(0.0137)
Log(GDP^{pc})					-0.0027
					(0.0131)
Observations	2,603	2,603	2,603	1,910	1,910
Countries	128	128	128	99	99
R-squared	0.001	0.050	0.245	0.359	0.359
F-statistics	0.000	12.36	4.270	3.276	3.187
Fixed effects	No	Yes	Yes	Yes	Yes
Year fixed effects	No	No	Yes	Yes	Yes
	Panel B: Dependent variable: Gini of net incomes				
Liberalization	-0.0461***	0.0110***	0.0024	0.0024	0.0036
	(0.0135)	(0.0041)	(0.0043)	(0.0045)	(0.0047)
Observations	2,566	2,566	2,566	1,910	1,910
Countries	127	127	127	99	99
R-squared	0.059	0.039	0.113	0.165	0.168
F-statistics	11.63	7.044	1.836	2.488	2.600
Fixed effects	No	Yes	Yes	Yes	Yes
Year fixed effects	No	No	Yes	Yes	Yes

Notes: Cluster robust standard errors are reported in parentheses. Inequality series are taken from the SWIID. Market incomes are income before taxes and transfers, net incomes are incomes after government intervention via the tax and transfer system. *0.1 **0.05 ***0.01

Table 2: Reforms and income inequality---Results for continents. Dependent variables: Gini coefficient of market incomes.

	(1)	(2)	(3)	(4)
	Panel A: Europe			
Reform	0.0520*	0.0419***	0.0164**	0.0283
	(0.0072)	(0.0073)	(0.0080)	(0.0230)
Observations	766	766	766	610
Countries	37	37	37	33
R^2	0.116	0.121	0.445	0.452
Fixed effects	No	Yes	Yes	Yes
Year fixed effects	No	No	Yes	Yes
Controls	No	No	No	Yes
	Panel B: Asia			
Reform	0.0086	0.0136**	0.0034	0.0137
	(0.0201)	(0.0061)	(0.0071)	(0.0091)
Observations	664	664	664	394
Countries	28	28	28	18
R^2	0.006	0.064	0.192	0.334
Fixed effects	No	Yes	Yes	Yes
Year fixed effects	No	No	Yes	Yes
Controls	No	No	No	Yes
	Panel C: America			
Reform	0.0021	0.0129*	-0.0131*	-0.0065
	(0.0194)	(0.0069)	(0.0072)	(0.0040)
Observations	587	587	587	514
Countries	24	24	24	22
R^2	0.000	0.086	0.388	0.568
Fixed effects	No	Yes	Yes	Yes
Year fixed effects	No	No	Yes	Yes
Controls	No	No	No	Yes
	Panel D: Africa			
Reform	-0.0242	-0.0029	-0.0063	-0.0074
	(0.0205)	(0.0074)	(0.0078)	(0.0077)
Observations	536	536	536	347
Countries	36	36	36	24
R^2	0.025	0.004	0.042	0.233
Fixed effects	No	Yes	Yes	Yes
Year fixed effects	No	No	Yes	Yes
Controls	No	No	No	Yes

Notes: Cluster robust standard errors are reported in parentheses. Inequality series are taken from the SWIID. Market incomes are income before taxes and transfers, net incomes are incomes after government intervention via the tax and transfer system.
*0.1 **0.05 ***0.01

Table 3: Reforms and income inequality---Results depending on the development level at the time of reforms. Dependent variables: Gini coefficient of market and net incomes.

	CONTROLS EXCLUDED	CONTROLS INCLUDED		
	(1)	(2)	(3)	(4)
	Panel A: Dependent variable: Gini of market incomes			
Reform	-0.1090***	-0.1230***	-0.1050***	-0.0756*
	(0.0358)	(0.0357)	(0.0357)	(0.0433)
Reform × Log(GDP^{pc})	0.0124***	0.0142***	0.0120***	0.0084*
	(0.0041)	(0.0042)	(0.0042)	(0.0050)
Log(GDP^{pc})	-0.0007	0.0032	0.0004	-0.0077
	(0.0094)	(0.0092)	(0.0101)	(0.0136)
Education		-0.0102***	-0.0102**	-0.0125**
		(0.0038)	(0.0042)	(0.0049)
Globalization			0.0012***	0.0009**
			(0.0004)	(0.0005)
Technology				0.0269*
				(0.0136)
Observations	2,497	2,415	2,226	1,910
Countries	125	116	115	99
R^2	0.264	0.303	0.313	0.369
Fixed effects	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes
	Panel B: Dependent variable: Gini of net incomes			
Reform	-0.0488	-0.0630	-0.0492	-0.0024
	(0.0418)	(0.0404)	(0.0419)	(0.0491)
Reform × Log(GDP^{pc})	0.0056	0.0079*	0.0062	0.0008
	(0.0086)	(0.0047)	(0.0048)	(0.0055)
Log(GDP^{pc})	0.0056	0.0102	0.0088	0.0145
	(0.0086)	(0.0084)	(0.0095)	(0.0137)
Education		-0.0108***	-0.0108***	-0.0126***
		(0.0033)	(0.0035)	(0.0040)
Globalization			0.0013***	0.0010**
			(0.0004)	(0.0004)
Technology				0.0044
				(0.0136)
Observations	2,497	2,415	2,226	1,910
Countries	125	116	115	99
R^2	0.115	0.172	0.210	0.244
Fixed effects	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes

Notes: Cluster robust standard errors are reported in parentheses. Inequality series are taken from the SWIID. Market incomes are income before taxes and transfers, net incomes are incomes after government intervention via the tax and transfer system. *0.1 **0.05 ***0.01

Table 4: Reforms and income inequality---Results for high-income countries. Dependent variable: Gini coefficient of market incomes.

	CONTROLS EXCLUDED			CONTROLS INCLUDED
	(1)	(2)	(3)	(4)
Reform	0.0244***	0.0249***	-0.0029	0.0062
	(0.0073)	(0.0073)	(0.0077)	(0.0077)
Education				-0.0129
				(0.0076)
Globalization				-0.0001
				(0.0012)
Technology				0.0155
				(0.0299)
Log(GDP^{pc})				-0.0105
				(0.0222)
Observations	803	803	803	715
Countries	32	32	32	30
R^2	0.027	0.025	0.436	0.514
Fixed effects	No	Yes	Yes	Yes
Year fixed effects	No	No	Yes	Yes

Notes: Cluster robust standard errors are reported in parentheses. Inequality series are taken from the SWIID. Market incomes are income before taxes and transfers, net incomes are incomes after government intervention via the tax and transfer system. High-income countries are defined as countries in the upper 25% of the empirical distribution of real per capita GDP at the end of our sample (the year 2000). *0.1 **0.05 ***0.01

Table 5: Reforms and income inequality---Results for low-income countries. Dependent variable: Gini coefficient of market incomes.

	CONTROLS EXCLUDED			CONTROLS INCLUDED
	(1)	(2)	(3)	(4)
Reform	-0.0079	-0.0077	-0.0109	-0.0122
	(0.0061)	(0.0061)	(0.0087)	(0.0086)
Education				0.0075
				(0.0302)
Globalization				-0.0364
				(0.0213)
Technology				0.0016
				(0.0011)
Log(GDP^{pc})				0.0404
				(0.0322)
Observations	485	485	485	238
Countries	30	30	30	18
R^2	0.027	0.025	0.436	0.514
Fixed effects	No	Yes	Yes	Yes
Year fixed effects	No	No	Yes	Yes

Notes: Cluster robust standard errors are reported in parentheses. Inequality series are taken from the SWIID. Market incomes are income before taxes and transfers, net incomes are incomes after government intervention via the tax and transfer system. Low-income countries are defined as countries in the lower 25% of the empirical distribution of real per capita GDP at the end of our sample (the year 2000). $^{*}0.1$ $^{**}0.05$ $^{***}0.01$

Table 6: Reforms and income inequality---Results for middle-income countries. Dependent variable: Gini coefficient of market incomes.

	CONTROLS EXCLUDED			CONTROLS INCLUDED
	(1)	(2)	(3)	(4)
Reform	0.0199***	0.0198***	0.0073	0.0065
	(0.0049)	(0.0049)	(0.0055)	(0.0052)
Education				-0.0086
				(0.0060)
Globalization				0.0013**
				(0.0006)
Technology				0.0186
				(0.0134)
Log(GDP^{pc})				-0.0078
				(0.0162)
Observations	1,278	1,278	1,278	957
Countries	65	65	65	51
R^2	0.035	0.159	0.268	0.346
Fixed effects	No	Yes	Yes	Yes
Year fixed effects	No	No	Yes	Yes

Notes: Cluster robust standard errors are reported in parentheses. Inequality series are taken from the SWIID. Market incomes are income before taxes and transfers, net incomes are incomes after government intervention via the tax and transfer system. Middle-income countries are defined as countries between the lower 25% and the upper 25% of the empirical distribution of real per capita GDP at the end of our sample (the year 2000). *0.1 **0.05 ***0.01

Table 7: Reforms and income inequality---Results depending on government ideology. Dependent variable: Gini coefficient of market incomes.

	LEFTWING IDEOLOGY		RIGHTWING IDEOLOGY	
	CONTROLS EXCLUDED	CONTROLS INCLUDED	CONTROLS EXCLUDED	CONTROLS INCLUDED
	(1)	(2)	(3)	(4)
Reform	0.0128***	-0.0076*	0.0129***	-0.0075*
	(0.0043)	(0.0042)	(0.0043)	(0.0042)
Leftwing ideology	-0.0025	-0.00430*		
	(0.0025)	(0.00217)		
Rightwing ideology			0.0033	0.0049**
			(0.0027)	(0.0022)
Education		-0.0104**		-0.0101**
		(0.0043)		(0.0042)
Globalization		0.0012**		0.0012**
		(0.0005)		(0.0005)
Technology		0.0286		0.0276
		(0.0209)		(0.0207)
Log(GDP^{pc})		-0.0137		-0.0128
		(0.0159)		(0.0157)
Observations	1,488	1,292	1,488	1,292
Countries	102	81	102	81
Fixed effects	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes
Countries	103	81	103	81

Notes: Cluster robust standard errors are reported in parentheses. Inequality series are taken from the SWIID. Market incomes are income before taxes and transfers, net incomes are incomes after government intervention via the tax and transfer system.
*0.1 **0.05 ***0.01

Table 8: Reforms and income inequality---Product market reforms. Dependent variables: Gini coefficient of market and net incomes.

	Product markets	ETCR industries	State control	Barriers to entrepreneur.	Protection of incumbents	Admin. burdens for startups
	(1)	(2)	(3)	(4)	(5)	(6)
	Panel A: Dependent variable: Gini of market incomes					
Reform	-0.0180*	-0.0175***	-0.0025	-0.0002	-0.0054	-0.0044
	(0.0098)	(0.0062)	(0.0090)	(0.0057)	(0.0066)	(0.0069)
Observations	230	958	230	230	230	235
Countries	30	36	30	30	30	30
R-squared	0.320	0.556	0.290	0.287	0.310	0.320
F-statistics	2.756	41.88	2.354	2.477	2.325	2.566
Fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
	Panel B: Dependent variable: Gini of net incomes					
Reform	-0.0094	-0.0113**	0.0030	-0.0027	-0.0011	-0.0005
	(0.0085)	(0.0048)	(0.0056)	(0.0051)	(0.0053)	(0.0055)
Observations	230	958	230	230	230	230
Countries	30	36	30	30	30	30
R-squared	0.076	0.314	0.066	0.062	0.060	0.072
F-statistics	1.008	28.73	1.006	1.108	0.899	0.911
Fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes	Yes	Yes

Notes: Robust standard errors are reported in parentheses. Inequality series are taken from the SWIID. Market incomes are income before taxes and transfers, net incomes are incomes after government intervention via the tax and transfer system. Reform indicators are taken from the OECD Product Market Regulations Database (PMR) from OECD (2019a) and Vitale et al. (2019), *0.1 **0.05 ***0.01

Table 9: Reforms and income inequality---Labor market reforms. Dependent variables: Gini coefficient of market and net incomes.

	Collective dismissal	Regulation employment contracts (reg.)	Regulation employment contracts (temp.)	Minimum wage (relative to mean wage)	Minimum wage (relative to median wage)
	(1)	(2)	(3)	(4)	(5)
	Panel A: Dependent variable: Gini of market incomes				
Reform	-0.0199**	-0.0049	-0.0037	0.0469	0.0284
	(0.0081)	(0.0078)	(0.0033)	(0.0336)	(0.0517)
Observations	224	542	542	548	530
Countries	28	28	28	28	28
R-squared	0.302	0.476	0.482	0.501	0.532
F-statistics	5.150	9.488	28.80	13.50	11.55
Fixed effects	Yes	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes	Yes
	Panel B: Dependent variable: Gini of net incomes				
Reform	-0.0259***	-0.0055	-0.0014	0.0169	-0.0099
	(0.0039)	(0.0057)	(0.0030)	(0.0411)	(0.0507)
Observations	224	542	542	548	530
Countries	28	28	28	28	28
R-squared	0.101	0.212	0.210	0.293	0.306
F-statistics	59.96	3.058	9.242	5.570	4.470
Fixed effects	Yes	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes	Yes

Notes: Robust standard errors are reported in parentheses. Inequality series are taken from the SWIID. Market incomes are income before taxes and transfers, net incomes are incomes after government intervention via the tax and transfer system. Reform indicators are taken from the OECD Employment Protection Database (OECD 2019b) and the OECD Labour Force Survey (OECD 2019c), *0.1 **0.05 ***0.01

Table 10: Reforms and income inequality---Financial market reforms. Dependent variables: Gini coefficient of market and net incomes.

	CONTROLS EXCLUDED			CONTROLS INCLUDED	
	(1)	(2)	(3)	(4)	(5)
	Panel A: Dependent variable: Gini of market incomes				
Financial openness	0.0003	0.0068***	0.0034**	0.0025	0.0025
	(0.0030)	(0.0016)	(0.0016)	(0.0017)	(0.0017)
Education				-0.0116***	-0.0116**
				(0.0038)	(0.0039)
Globalization				0.0007	0.0007
				(0.0005)	(0.0005)
Technology				0.0371***	0.0365**
				(0.0127)	(0.0140)
Log(GDP^{pc})					0.0012
					(0.0126)
Observations	3,054	3,054	3,054	2,427	2,427
Countries	159	159	159	108	108
R-squared	0.001	0.094	0.179	0.344	0.344
F-statistics	0.010	19.62	2.498	2.619	2.824
Fixed effects	No	Yes	Yes	Yes	Yes
Year fixed effects	No	No	Yes	Yes	Yes
	Panel B: Dependent variable: Gini of net incomes				
Financial openness	-0.0167***	0.0036***	0.0020	0.0005	0.0005
	(0.0042)	(0.0013)	(0.0014)	(0.0016)	(0.0016)
Observations	3,054	3,054	3,054	2,427	2,427
Countries	159	159	159	108	108
R-squared	0.059	0.039	0.113	0.165	0.168
F-statistics	11.63	7.044	1.836	2.488	2.600
Fixed effects	No	Yes	Yes	Yes	Yes
Year fixed effects	No	No	Yes	Yes	Yes

Notes: Cluster robust standard errors are reported in parentheses. Inequality series are taken from the SWIID. Market incomes are income before taxes and transfers, net incomes are incomes after government intervention via the tax and transfer system. Data on financial market reforms is taken from the updated version (September 2019) of the Chinn-Ito index of financial openness (Chinn and Ito 2008).
*0.1 **0.05 ***0.01

Table 11: Gains from reforms across the income distribution, trade liberalization, country-level evidence---Dependent variables: Income shares held by specific percentiles of the national income distribution.

	Lowest 20%	Lowest 10%	Top 20%	Top 10%	Top 1%
	(1)	(2)	(3)	(4)	(5)
	Panel A: CONTROLS EXCLUDED				
Reform	0.458**	0.149	-2.596***	-2.667***	-1.600*
	(0.189)	(0.095)	(0.820)	(0.860)	(0.821)
Observations	343	343	343	343	2,427
Countries	97	97	97	97	121
R-squared	0.141	0.125	0.176	0.167	0.075
F-statistics	1.675	1.453	2.178	2.048	4.194
Fixed effects	Yes	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes	Yes
	Panel B: CONTROLS INCLUDED				
Reform	0.570***	0.189*	-3.084***	-3.216***	-1.224
	(0.197)	(0.104)	(0.946)	(1.041)	(1.005)
Observations	272	272	272	272	1897
Countries	68	68	68	68	95
R-squared	0.218	0.202	0.243	0.231	0.121
F-statistics	1.906	1.737	2.192	2.057	3.134
Fixed effects	Yes	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes	Yes
Controls	Yes	Yes	Yes	Yes	Yes

Notes: Robust standard errors are reported in parentheses. Income shares are taken from World Bank (2019) and from the SWIID, version 4. Panel B replicates the previous analyses by including control variables for education, log per capita GDP (in real terms), technological progress, and globalization. *0.1 **0.05 ***0.01

Table 12: Gains from reforms across the income distribution, financial liberalization, country-level evidence---Dependent variables: Income shares held by specific percentiles of the national income distribution.

	Lowest 20%	Lowest 10%	Top 20%	Top 10%	Top 1%
	(1)	(2)	(3)	(4)	(5)
	Panel A: CONTROLS EXCLUDED				
Financial openness	-0.0354	-0.0155	0.349	0.344	-0.0260
	(0.0571)	(0.0288)	(0.221)	(0.214)	(0.210)
Observations	1383	1382	1383	1383	3461
Countries	151	150	151	151	144
R-squared	0.139	0.129	0.172	0.165	0.0626
F-statistics	4.938	4.528	6.355	6.046	5.084
Fixed effects	No	Yes	Yes	Yes	Yes
Year fixed effects	No	No	Yes	Yes	Yes
	Panel B: CONTROLS INCLUDED				
Financial openness	-0.0450	-0.0202	0.337	0.311	-0.0550
	(0.0581)	(0.0303)	(0.247)	(0.243)	(0.264)
Observations	1125	1125	1125	1125	2759
Countries	103	103	103	103	100
R-squared	0.174	0.171	0.194	0.184	0.100
F-statistics	4.904	4.801	5.629	5.255	6.187
Fixed effects	No	Yes	Yes	Yes	Yes
Year fixed effects	No	No	Yes	Yes	Yes
Controls	Yes	Yes	Yes	Yes	Yes
	Panel C: Combining reforms and financial liberalization				
Financial openness	-0.0911	-0.0357	0.485**	0.443*	0.0863
	(0.0731)	(0.0372)	(0.221)	(0.227)	(0.359)
Reform	0.536***	0.177*	-2.945***	-2.987***	-1.702*
	(0.181)	(0.0906)	(0.827)	(0.881)	(1.022)
Observations	326	326	326	326	2132
Countries	90	90	90	90	119
R-squared	0.164	0.140	0.202	0.188	0.0631
F-statistics	1.810	1.504	2.345	2.143	4.168
Fixed effects	No	Yes	Yes	Yes	Yes
Year fixed effects	No	No	Yes	Yes	Yes
Controls	No	No	No	No	No

Notes: Robust standard errors are reported in parentheses. Income shares are taken from World Bank (2019) and from the SWIID, version 4. Panel B replicates the previous analyses by including control variables for education, log per capita GDP (in real terms), technological progress, and globalization. Data on financial market reforms is taken from the updated version (September 2019) of the Chinn-Ito index of financial openness (Chinn and Ito 2008).

*0.1 **0.05 ***0.01

Table 13: Gains from reforms across the income distribution, trade liberalization, household-level evidence---Dependent variables: Financial situation of the household.

	INCOMES LEVELS				EMPLOYMENT STATUS	
	CONTROLS EXCLUDED	CONTROLS INCLUDED	CONTROLS EXCLUDED	CONTROLS INCLUDED	CONTROLS EXCLUDED	CONTROLS INCLUDED
	(1)	(2)	(3)	(4)	(5)	(6)
Reform	-0.902***	-0.253***	0.219**	0.300***	-0.798***	-0.224***
	(0.1010)	(0.0931)	(0.1009)	(0.101)	(0.0998)	(0.0936)
Income		0.273***	0.387***	0.370***		0.273***
		(0.0041)	(0.0072)	(0.0076)		(0.0041)
Education		0.037***		0.036***		0.037***
		(0.0046)		(0.0046)		(0.0046)
Student		0.306***		0.299***		0.309***
		(0.0405)		(0.0404)		(0.0405)
Unemployed		-0.580***		-0.580***	-0.747***	-0.437***
		(0.0364)		(0.0364)	(0.0651)	(0.0652)
Widowed		0.193***		0.211***		0.193***
		(0.0462)		(0.0462)		(0.0462)
Children in HH		-0.056***		-0.059***		-0.056***
		(0.0070)		(0.0067)		(0.0070)
Age		0.006***		0.0057***		0.006***
		(0.0008)		(0.0008)		(0.0008)
Reform × Income			-0.129***	-0.134***		
			(0.0084)	(0.0085)		
Reform × Unemployment					-0.253***	-0.205***
					(0.0782)	(0.0772)
Observations	70,810	69,537	70,810	69,537	70,810	69,537
R-squared	0.237	0.310	0.304	0.312	0.245	0.310
F-statistics	583.6	722.9	804.0	714.6	584.9	710.6
Country fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Wave fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes	Yes	Yes

Notes: Robust standard errors are reported in parentheses. Household data is taken from the World Value Survey (WVS). Income denotes the position of the household on the national income distribution on a scale of 1 to 10. Education is the highest level of education obtained. The variable is coded from 1 (inadequately completed elementary education) to 8 (university completed with degree). Student, Unemployed, and Widowed are dummy variables. Children in HH accounts for children in the household of respondents. Age is measured in years.

*0.1 **0.05 ***0.01

Table 14: Gains from reforms across the income distribution, financial liberalization, household-level evidence---Dependent variables: Financial situation of the household.

	INCOMES LEVELS				EMPLOYMENT STATUS	
	CONTROLS EXCLUDED (1)	CONTROLS INCLUDED (2)	CONTROLS EXCLUDED (3)	CONTROLS INCLUDED (4)	CONTROLS EXCLUDED (5)	CONTROLS INCLUDED (6)
Financial openness	0.111***	0.0623***	0.175***	0.188***	0.137***	0.0673***
	(0.0114)	(0.0107)	(0.0127)	(0.0127)	(0.0114)	(0.0107)
Income		0.337***	0.368***	0.346***		0.337***
		(0.0025)	(0.0046)	(0.0025)		(0.0025)
Education		0.037***		0.040***		0.041***
		(0.0046)		(0.0025)		(0.0025)
Student		0.255***		0.250***		0.257***
		(0.0200)		(0.0200)		(0.0200)
Unemployed		-0.401***		-0.400***	-0.747***	-0.396***
		(0.0185)		(0.0185)	(0.0651)	(0.0186)
Widowed		0.065***		0.067***		0.064***
		(0.0127)		(0.0256)		(0.0257)
Children in HH		-0.043***		-0.042***		-0.043***
		(0.0036)		(0.0036)		(0.0036)
Age		0.003***		0.0028***		0.003***
		(0.0004)		(0.0004)		(0.0004)
Financial openness × Income			-0.027***	-0.027***		
			(0.0015)	(0.0015)		
Financial openness × Unemployment					-0.081***	-0.064***
					(0.0126)	(0.0119)
Observations	225,132	223,024	225,132	223,024	225,132	223,024
R-squared	0.146	0.244	0.240	0.246	0.152	0.24
F-statistics	431.8	773.8	801.1	770.3	446.6	767.9
Country fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Wave fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes	Yes	Yes

Notes: Robust standard errors are reported in parentheses. Household data is taken from the World Value Survey (WVS). Income denotes the position of the household on the national income distribution on a scale of 1 to 10. Education is the highest level of education obtained. The variable is coded from 1 (inadequately completed elementary education) to 8 (university completed with degree). Student, Unemployed, and Widowed are dummy variables. Children in HH accounts for children in the household of respondents. Age is measured in years.

*0.1 **0.05 ***0.01

Table 15: Support of reforms and income---Dependent variable: Positive association with reforms on a scale of 1 (very negative) to 4 (very positive).

	WHOLE SAMPLE			LEFT	RIGHT
	(1)	(2)	(3)	(4)	(5)
Income	0.0902***	0.0829***	0.0820***	0.0911***	0.0731***
	(0.00379)	(0.00390)	(0.00429)	(0.00785)	(0.00833)
Education		0.000561*	0.000610*	-0.000295	0.000973
		(0.000292)	(0.000331)	(0.000573)	(0.000688)
Student		0.0432**	0.0145	0.0185	-0.0200
		(0.0193)	(0.0217)	(0.0373)	(0.0452)
Unemployed		-0.076***	-0.0805***	-0.0882***	-0.0704**
		(0.0143)	(0.0160)	(0.0281)	(0.0324)
Retired		0.00721	-0.00636	-0.00363	0.0344
		(0.0117)	(0.0126)	(0.0228)	(0.0247)
Widowed		-0.0231	-0.0257	-0.00578	-0.0360
		(0.0162)	(0.0175)	(0.0324)	(0.0329)
Married		0.00462	0.00374	0.0142	0.000263
		(0.0102)	(0.0110)	(0.0198)	(0.0215)
Divorced		-0.0287*	-0.0272	0.0472	-0.0401
		(0.0154)	(0.0167)	(0.0300)	(0.0331)
Children in HH		-0.0192**	-0.0210**	-0.0232	-0.0116
		(0.00872)	(0.00947)	(0.0172)	(0.0183)
Age		-0.00106***	-0.000860**	-0.00153**	-0.000926
		(0.000359)	(0.000391)	(0.000715	(0.000758
Political orientation			0.00611***		
			(0.00186)		
Observations	52,402	51,509	42,697	13,286	11,639
Countries	36	36	36	36	36
R-squared	0.056	0.058	0.058	0.065	0.0888
F-statistics	98.50	82.46	66.30	23.34	26.78
Country fixed effects	Yes	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes	Yes

Notes: Robust standard errors are reported in parentheses. Household data is taken from the Eurobarometer 84.3 and Eurobarometer 85.1. Income describes the self-estimated position of the household on the national income in one of the groups "working class", "lower middle class", "middle class", "upper middle class", "higher class". Education are the years spent in full-time education. Student, Unemployed, Widowed, and Children in HH are dummy variables. Age is measured in years.

Political orientation is the self-estimated political position on a scale of 1 (left) to 10 (right). A respondent is described to be leftwing if the political orientation variable is 4 or lower, and as rightwing if the political orientation variable is 7 or higher.
$^{*}0.1$ $^{**}0.05$ $^{***}0.01$

Appendix

Table A1 (1/2): Descriptive statistics and data sources, macroeconomic variables

	N	Mean	Std.	Min	Max	Data source
Gini (market)	4806	0.45	0.07	0.21	0.69	Solt (2009, 2016)
Gini (net)	1793	0.39	0.08	0.23	0.61	Solt (2009, 2016)
Reform	5494	0.37	0.48	0.00	1.00	Sachs and Werner (1995), Wacziarg and Welch (2003, 2008)
Education	13071	4.43	3.46	0.00	13.87	PWT 9.1
Globalization	7953	50.00	16.91	14.29	91.17	Gygli et al. (2019)
Technology	5914	0.71	0.28	0.02	3.61	PWT 9.1
Log(GDP^{pc})	9517	8.74	1.21	5.24	12.38	PWT 9.1
Redistribution	4806	0.07	0.07	-0.08	0.32	Solt (2009, 2016)
Leftwing	4038	0.52	0.50	0.00	1.00	Cruz et al. (2018)
Rightwing	4038	0.36	0.48	0.00	1.00	Cruz et al. (2018)
ECTR industries	1380	4.16	1.45	0.79	6.00	OECD (2009a), Vitale et al. (2019)
Product markets	532	1.79	0.48	0.92	3.40	OECD (2009a), Vitale et al. (2019)
State control	527	2.45	0.66	1.15	4.42	OECD (2009a), Vitale et al. (2019)
Barriers to ent.	527	2.09	0.54	1.09	4.12	OECD (2009a), Vitale et al. (2019)
Protection of incumb.	532	1.65	0.53	0.64	4.07	OECD (2009a), Vitale et al. (2019)
Administrative barriers	532	2.24	0.77	0.84	4.75	OECD (2009a), Vitale et al. (2019)
Collective dismissal	563	2.79	1.16	0.00	5.13	OECD (2009b)
Reg. contracts (reg.)	877	2.20	0.83	0.26	5.00	OECD (2009b)
Reg. contracts (temp.)	872	1.96	1.39	0.25	5.25	OECD (2009b)
Min. wage (mean)	1025	0.40	0.10	0.08	0.82	OECD (2009c)
Min. wage (med.)	1004	0.49	0.12	0.10	0.92	OECD (2009c)
Financial openness	7076	-0.00	1.53	-1.92	2.35	Chinn and Ito (2008)
Globalization de jure	7398	45.77	24.51	1.54	97.80	Gygli et al. (2019)
Globalization de facto	7795	50.46	20.26	3.18	99.55	Gygli et al. (2019)
Lowest 10%	1467	2.46	1.02	0.00	5.00	World Bank (2019)
Lowest 20%	1468	6.34	2.19	0.80	11.40	World Bank (2019)
Highest 10%	1468	30.76	7.30	19.00	61.50	World Bank (2019)
Highest 20%	1468	46.18	7.82	32.40	71.00	World Bank (2019)
N	15307					

Table A1 (2/2): Descriptive statistics and data sources, microeconomic variables

	N	Mean	Std.	Min	Max	Data source
Financial situation	272,444	5.62	2.59	1	10	World Value Survey
Income decile	277,393	4.64	2.312	1	10	World Value Survey
Education	277,393	4.55	2.32	1	8	World Value Survey
Student	277,393	0.07	0.26	0	1	World Value Survey
Unemployed	277,393	0.09	0.29	0	1	World Value Survey
Widowed	277,393	0.06	0.23	0	1	World Value Survey
Married	277,393	0.57	0.49	0	1	World Value Survey
Children	270,061	1.95	1.85	0	8	World Value Survey
Age	277,393	40.68	15.92	15	99	World Value Survey
Reform preference	54,158	2.71	0.82	1	4	Eurobarometer 84.3, 85.1
Income quintile	63,306	2.39	0.99	1	5	Eurobarometer 84.3, 85.1
Education	64,281	18.92	5.73	0	77	Eurobarometer 84.3, 85.1
Age	65,820	50.53	17.64	15	99	Eurobarometer 84.3, 85.1
Unemployed	65,820	0.08	0.27	0	1	Eurobarometer 84.3, 85.1
Retired	65,820	0.30	0.46	0	1	Eurobarometer 84.3, 85.1
Student	65,820	0.59	0.24	0	1	Eurobarometer 84.3, 85.1
Married	65,820	0.55	0.50	0	1	Eurobarometer 84.3, 85.1
Divorced	65,820	0.08	0.26	0	1	Eurobarometer 84.3, 85.1
Widowed	65,820	0.09	0.28	0	1	Eurobarometer 84.3, 85.1
Children	65,820	0.39	0.49	0	1	Eurobarometer 84.3, 85.1
Leftwing	65,820	0.31	0.46	0	1	Eurobarometer 84.3, 85.1
Rightwing	65,820	0.27	0.44	0	1	Eurobarometer 84.3, 85.1
Conservative (cont.)	52,326	5.27	2.24	1	10	Eurobarometer 84.3, 85.1
Farmer	65,820	0.01	0.10	0	1	Eurobarometer 84.3, 85.1
Fisher	65,820	0.00	0.02	0	1	Eurobarometer 84.3, 85.1
Self-employed (profes.)	65,820	0.02	0.12	0	1	Eurobarometer 84.3, 85.1
Self-employed	65,820	0.03	0.18	0	1	Eurobarometer 84.3, 85.1
Owner	65,820	0.02	0.15	0	1	Eurobarometer 84.3, 85.1
Employed (profes.)	65,820	0.03	0.18	0	1	Eurobarometer 84.3, 85.1
General manager	65,820	0.01	0.11	0	1	Eurobarometer 84.3, 85.1
Middle manager	65,820	0.08	0.27	0	1	Eurobarometer 84.3, 85.1
Employed (sit.)	65,820	0.09	0.28	0	1	Eurobarometer 84.3, 85.1
Employed (trav.)	65,820	0.03	0.18	0	1	Eurobarometer 84.3, 85.1
Service	65,820	0.07	0.26	0	1	Eurobarometer 84.3, 85.1
Supervisor	65,820	0,01	0.10	0	1	Eurobarometer 84.3, 85.1
Manual worker	65,820	0.09	0.28	0	1	Eurobarometer 84.3, 85.1
Unskilled	65,820	0.03	0.16	0	1	Eurobarometer 84.3, 85.1

Table A2: Reforms and income redistribution of governments. Dependent variables: Absolute redistribution and relative redistribution.

	CONTROLS EXCLUDED			CONTROLS INCLUDED	
	(1)	(2)	(3)	(4)	(5)
	Panel A: Dependent variable: Absolute redistribution				
Reform	0.0460***	0.0034*	-0.0060**	-0.0040	-0.0066**
	(0.0094)	(0.0019)	(0.0026)	(0.0029)	(0.0028)
Education				-0.0008	0.0003
				(0.0026)	(0.0025)
Globalization				-0.0002	0.0000
				(0.0003)	(0.0002)
Technology				0.0135*	0.0219**
				(0.0078)	(0.0101)
Log(GDP^{pc})					-0.0179***
					(0.0067)
Observations	2,566	2,566	2,566	1,910	1,910
Countries	127	127	127	99	99
R-squared	0.111	0.008	0.223	0.218	0.251
F-statistics	23.84	3.202	2.275	2.000	3.232
Fixed effects	No	Yes	Yes	Yes	Yes
Year fixed effects	No	No	Yes	Yes	Yes
	Panel B: Dependent variable: Relative redistribution				
Reform	0.1040***	0.0020	-0.0117**	-0.0054	-0.0095**
	(0.0212)	(0.0041)	(0.0047)	(0.0043)	(0.0047)
Observations	2,566	2,566	2,566	1,910	1,910
Countries	127	127	127	99	99
R-squared	0.111	0.001	0.135	0.111	0.139
F-statistics	23.79	0.239	1.893	1.663	2.182
Fixed effects	No	Yes	Yes	Yes	Yes
Year fixed effects	No	No	Yes	Yes	Yes

Notes: Cluster robust standard errors are reported in parentheses. Inequality series are taken from the SWIID. Market incomes are income before taxes and transfers, net incomes are incomes after government intervention via the tax and transfer system. Redistribution in absolute terms is measured via the difference of market inequality and net inequality. Relative redistribution relates absolute redistribution to the initial level of market inequality.

*0.1 **0.05 ***0.01

Table A3: Reforms and income inequality---Results based on the KOF Trade Globalisation Index (de jure). Dependent variables: Gini coefficient of market and net incomes.

	CONTROLS EXCLUDED			CONTROLS INCLUDED	
	(1)	(2)	(3)	(4)	(5)
	Panel A: Dependent variable: Gini of market incomes				
Trade globalization (de jure)	-0.0001	0.0007***	0.0002	-0.0002	-0.0002
	(0.0002)	(0.0002)	(0.0002)	(0.0002)	(0.0002)
Education				-0.0099***	-0.0116**
				(0.0038)	(0.0039)
Globalization				0.0012**	0.0007
				(0.0005)	(0.0005)
Technology				0.0379***	0.0365**
				(0.0119)	(0.0140)
Log(GDP^{pc})					0.0012
					(0.0126)
Observations	3,179	3,179	3,179	2,525	2,525
Countries	154	154	154	109	109
R-squared	0.001	0.101	0.196	0.345	0.345
F-statistics	0.233	22.33	2.402	2.520	2.530
Fixed effects	No	Yes	Yes	Yes	Yes
Year fixed effects	No	No	Yes	Yes	Yes
	Panel B: Dependent variable: Gini of net incomes				
Trade globalization (de jure)	-0.0021***	0.0004***	0.0001	-0.0002	-0.0003
	(0.0002)	(0.0001)	(0.0002)	(0.0002)	(0.0002)
Observations	3,179	3,179	3,179	2,525	2,525
Countries	154	154	154	109	109
R-squared	0.319	0.043	0.078	0.157	0.164
F-statistics	111.9	10.47	1.767	1.911	2.097
Fixed effects	No	Yes	Yes	Yes	Yes
Year fixed effects	No	No	Yes	Yes	Yes

Notes: Cluster robust standard errors are reported in parentheses. Inequality series are taken from the SWIID. Market incomes are income before taxes and transfers, net incomes are incomes after government intervention via the tax and transfer system. Data on trade globalization is taken from the KOF Globalisation Index (Gygli et al. 2019).
*0.1 **0.05 ***0.01

Table A4: Reforms and income inequality---Results based on the KOF Trade Globalisation Index (de facto). Dependent variables: Gini coefficient of market and net incomes.

	CONTROLS EXCLUDED			CONTROLS INCLUDED	
	(1)	(2)	(3)	(4)	(5)
	Panel A: Dependent variable: Gini of market incomes				
Trade globalization (de jure)	0.0000	0.0005***	0.0000	-0.0003*	-0.0003*
	(0.0002)	(0.0001)	(0.0002)	(0.0002)	(0.0002)
Education				-0.0101***	-0.0101***
				(0.0037)	(0.0038)
Globalization				0.0014***	0.0014***
				(0.0005)	(0.0005)
Technology				0.0378***	0.0376***
				(0.0120)	(0.0134)
Log(GDP^{pc})					0.0005
					(0.0123)
Observations	3,229	3,229	3,229	2,525	2,525
Countries	159	159	159	109	109
R-squared	0.001	0.039	0.196	0.353	0.353
F-statistics	0.043	12.48	2.473	2.839	2.932
Fixed effects	No	Yes	Yes	Yes	Yes
Year fixed effects	No	No	Yes	Yes	Yes
	Panel B: Dependent variable: Gini of net incomes				
Trade globalization (de jure)	-0.0002	0.0004***	0.0002	-0.0001	-0.0001
	(0.0003)	(0.0001)	(0.0001)	(0.0002)	(0.0002)
Observations	3,229	3,229	3,229	2,525	2,525
Countries	159	159	159	109	109
R-squared	0.003	0.030	0.082	0.155	0.159
F-statistics	0.470	7.437	1.679	2.216	2.394
Fixed effects	No	Yes	Yes	Yes	Yes
Year fixed effects	No	No	Yes	Yes	Yes

Notes: Cluster robust standard errors are reported in parentheses. Inequality series are taken from the SWIID. Market incomes are income before taxes and transfers, net incomes are incomes after government intervention via the tax and transfer system. Data on trade globalization is taken from the KOF Globalisation Index (Gygli et al. 2019).
*0.1 **0.05 ***0.01