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Abstract

This paper examines the impact of labour market and product market reforms on income inequality for 25 OECD countries, using the local projections approach and updates of the reform indicators put together by Duval et al. (2018) until 2020. Our results suggest that both types of (endogenized) reforms cause more income inequality. Consistent with this finding is that counter-reforms lead to less income inequality. However, the inequality-raising effects of reforms occur especially in countries that have below median levels of social spending; in countries where social spending is above the sample median, the effect of reform is mostly statistically insignificant.

JEL-Codes: D310, J210, H300, L430, L510.

Keywords: structural reforms, income distribution, local projections, nonlinearities.

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1. Introduction

During the last decades, income inequality has increased in many advanced economies (Chancel and Piketty, 2021). While multiple factors have contributed to this development, national policies are often argued to explain a substantial part of it (Atkinson, 2003; Piketty, 2014). To date, the impact of structural reforms—in particular product and labour market reforms—on income inequality has received limited attention. These reforms broadly involve deregulating retail trade, professional services, and certain segments of network industries, primarily by reducing barriers to entry; easing hiring and dismissal regulations for regular workers; and increasing the ability of and incentives for the non-employed to find jobs **(**Duval and Furceri, 2018).

The effects of structural reforms on income inequality are important to study on their own. Furthermore, if market-oriented reforms lead to increasing inequality, these reforms may reduce economic growth.[1] Empirical evidence suggests that inequality is associated with slower and less durable economic growth in the medium and long run (see, for instance, Alesina and Rodrik, 1994; Persson and Tabellini, 1994; Ostry et al., 2014; see Cerra et al., 2021 for a survey).

As pointed out by Campos et al. (2018) and Furceri and Ostry (2019), the theory on how structural reforms affect income inequality leads to different predictions. On the one hand, greater competition in product markets reduces market power and barriers to entry which may expand economic activities and increase demand for labour, while a less protected labour market facilitates employers to hire workers more swiftly. This suggests that structural reforms will reduce income inequality via lowering the level of unemployment (see, for instance, Blanchard and Giavazzi, 2003; Bassanini and Duval, 2006). On the other hand, structural reforms can also increase income inequality. For instance, Nicoletti et al. (2001) argue that product market liberalisation tends to reduce market rents available for unions to capture through collective bargaining. Reform may also lead to a decline in the bargaining power of workers (Jaumotte and Osorio-Buitron, 2015; Ciminelli et al., 2018).

A substantial part of previous research on the effects of structural reforms uses simulations of Dynamic Stochastic General Equilibrium (DSGE) models (see Parlevliet et al., 2018 for a review). However, Campos et al. (2018: 27) argue that "A problem with this approach is that the simulations just confirm a priori beliefs: in most DSGE models, unemployment is

[1] There is extensive research on the impact of structural reform on economic growth, yielding rather mixed evidence; see Campos et al. (2018) for a review.

voluntary. Structural reforms are interpreted as an intervention that changes the relative price of leisure versus labour (e.g., by reducing unemployment benefits). In addition, most DSGE models are based on calibrations, as acknowledged by all authors. They are not empirical evidence."

Only a few studies present estimates of the impact of structural reforms on inequality using panel or cross-section data for a sample of advanced countries.[2] According to an OECD (2011) report, which is based on data covering 22 OECD countries from the early 1980s to 2008, more flexible product market regulation and weaker employment protection regulation are important determinants of the increase in wage inequality between the early 1980s and the late 2000s. Using a large sample of countries (including less advanced countries) to identify robust drivers of income inequality, Furceri and Ostry (2019) report that in their cross-section regressions the coefficient of product market reform has a statistically significant negative effect on the Gini coefficient, while the coefficient of labour market reform is not statistically significant. In their analysis of within-country inequality, both coefficients are statistically insignificant. Finally, Gründler et al. (2020) examine the impact of product and labour market reform on income inequality in OECD countries and find that deregulating product markets tends to be negatively associated with income inequality, while labour market reforms are hardly related to income inequality.

This paper examines the impact of labour market and product market reforms on income inequality in 25 OECD countries, using the local projections (LP) approach (Jordà, 2005) and updates of the reform indicators put together by Duval et al. (2018) until 2020. LP is a flexible alternative to vector autoregression models since it does not impose dynamic restrictions. In estimating our models, we follow Teulings and Zubanov (2014) and include the leads of the reform dummies. This approach alleviates the bias caused by overlapping forecast horizons. We control for the likely endogeneity of structural reforms using the Augmented Inverse Probability Weighted (AIPW) estimator proposed by Jordà and Taylor (2015), following Glynn and Quinn (2010).

Our work offers five main contributions to the literature. First, previous studies on the impact of structural reform on inequality (OECD, 2011; Gründler et al., 2020) employ OECD continuous indicators of structural reforms. Instead, we use the reform indicators of Duval et

[2] A related line of research examines the impact of (changes in) economic freedom on income inequality; see Gründler et al. (2020) for a further discussion. Changes in economic freedom may be considered as a proxy for broad economic reform (de Haan et al., 2006; Grier and Grier, 2021). Some single-country papers also analyze the impact of reform on inequality; see, for instance, Immel (2021), who studies the inequality effects of the Harz reforms in Germany and finds that these reform led to a small increase in income inequality.

al. (2018), which we update until 2020. According to Duval and Furceri (2018), this discrete-type database identifies the exact timing of major legislative and regulatory actions by advanced economies since the early 1970s in key labour and product market policy areas. Furthermore, it captures reforms in areas for which OECD indicators exist but do not cover all relevant policy dimensions.[3] Second, unlike previous studies on the impact of structural reform on income inequality, we use the LP approach and check (and where necessary control) for the endogeneity of reforms (by the AIPW estimator). This allows us to estimate the dynamic (treatment) effect of reforms on income inequality. [4] de Haan and Wiese (2022) show that controlling for endogeneity of reforms makes a large difference in their analysis of the impact of structural reform on economic growth. Third, we use both gross and net Gini coefficients to proxy income inequality, which offers the opportunity to examine whether governments' redistributive policies mitigate the possible inequality effects of reform. Fourth, we examine the impact of structural reform reversals on income inequality. Structural reforms are more reversible than commonly thought (Campos and Horvath, 2012). We examine whether product and labour market reform reversals have the opposite effect to those stemming from reforms. Finally, similar to Bergh et al. (2020), who examine the conditioning effect of social spending on the impact of globalization on income inequality, we analyse whether the effects of structural reforms on income inequality are conditioned by the level of social spending.

Our results suggest that both (endogenized) product and labour reform lead to more income inequality if we do not condition on social spending. Consistent with this finding is that counter-reforms lead to less income inequality. However, conditioning the effect of reform on inequality for the level of government social expenditure yields that both product and labour market reforms are more damaging to income distribution for lower levels of social expenditure suggesting that when fiscal space is available to compensate potential reform-losers, it may be used to minimize the distributional drawbacks of structural reforms.

The remainder of the paper is organized as follows. Section 2 discusses the data and presents key stylized facts. Section 3 elaborates on the methodological approach, while Section 4 assesses the effects of structural reforms on income distributional proxies and conducts several robustness checks. The final section concludes.

[3] These data have been used in some recent studies, see, for instance, Bouis et al. (2020), de Haan and Wiese (2022), and Duval et al. (2020; 2021).

[4] Some previous studies on structural reform also use local projections (Bordon et al, 2018; Bouis et al., 2020; de Haan and Wiese, 2022; Duval et al., 2021). However, to the best of our knowledge, we are the first to use this approach in studying the effects of structural reforms on income inequality. Furthermore, only Bordon et al. (2018) and de Haan and Wiese (2022) endogenize reforms.

2. Data and Stylized Facts

2.1 Structural Reforms

Structural reform data focuses on major policy changes in product market regulation and employment protection legislation for regular workers. These are the key reforms that have been routinely advocated by think tanks and international organizations such as the IMF and the OECD (see, for example, IMF, 2016). Major reforms of product market regulation and regular employment protection legislation are identified by Duval et al. (2018)—updated in this paper until 2020—who examine documented legislative and regulatory actions reported in all available *OECD Economic Surveys* for 25 individual advanced economies since 1970, as well as additional country-specific sources.[5] The approach also considers both reforms and "counter-reforms"—i.e., policy changes in the opposite direction. For each country, our reform variable in each area takes value 0 in non-reform years, 1 in reform years, and -1 in counter-reform years.

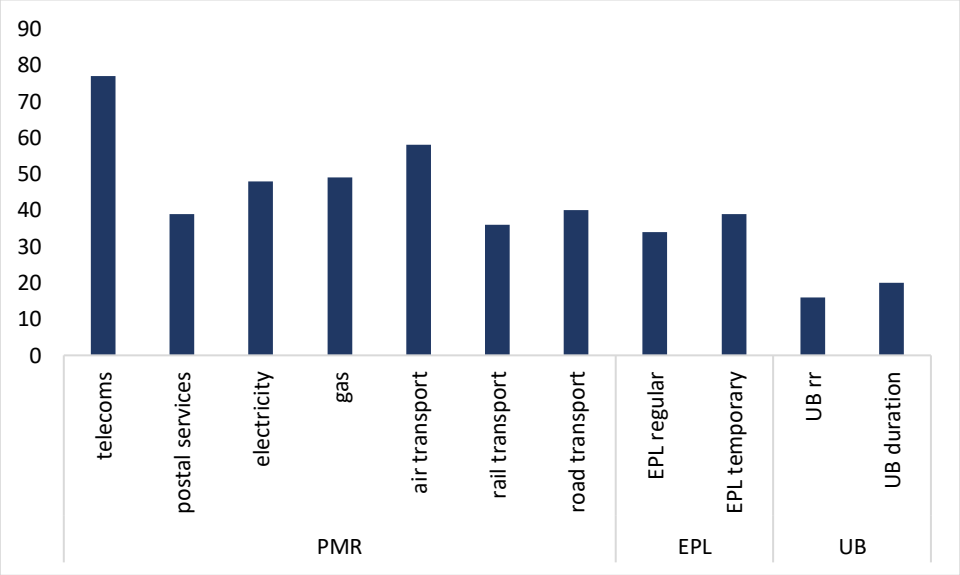
As our goal is to identify and trace out economies' distributional responses to major reform shocks, this approach has several strengths compared to indirect methods used in other papers that rely exclusively on changes in OECD policy indicators. This reform database: identifies the precise nature and exact timing of major legislative and regulatory actions in key labour and product market policy areas; identifies the precise reforms that underpin what otherwise looks like a gradual decline in OECD policy indicators without any obvious or noticeable break (for example, the series of reforms that took place in the telecommunications industry in many countries in the mid-late 1990s); captures reforms in areas for which OECD indicators exist but do not cover all relevant policy dimensions; covers a longer time period in some policy areas, such as employment protection legislation; documents and describes the precise legislative and regulatory actions that underpin observed large changes in OECD indicators. Finally, compared with other existing databases on policy actions in the area of labour market institutions, such as the European Commission's *Labref* or the ILO's *EPLex* database, the approach taken by Duval et al. (2018) allows identifying a rather limited set of major legislative and regulatory reforms, as opposed to just a long list of actions that in some cases would be expected to have little or no bearing on macroeconomic outcomes. This is particularly useful for empirical analyses that seeks to identify, and then estimate, the dynamic effects of reform

[5] The 25 countries covered are Australia, Austria, Belgium, Canada, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Japan, Korea, Luxembourg, the Netherlands, New Zealand, Norway, Portugal, the Slovak Republic, Spain, Sweden, Switzerland, the United Kingdom, and the United States.

shocks. The strengths of this narrative reform database come with one limitation; because two large reforms in a given area (for example, employment protection legislation (EPL) can involve different specific actions, like a major simplification of the procedures for individual and collective dismissals), only the average impact across major historical reforms can be estimated.[6] Appendix B presents the update of the database of Duval et al. (2018) of product and labour market reforms (EPL and unemployment benefits, UB) in the years 2013-2020.

Table 1 presents stylized facts on reforms—that is, decreases in regulation—and counter-reforms—that is, increases in regulation. The latter are relatively rare events in product markets (see Figure A1 in the online Appendix), while they can account for up to 25% of total shocks in the labour market. Figure 1 provides the number of reforms identified in the sample and illustrates the heterogeneity of reform efforts across regulatory areas. Product market reforms (PMR) have been more frequently implemented, in particular in telecommunications and air transport. In general, fewer major reforms have been implemented in the areas of employment protection legislation for regular workers. The vast majority of product and labour market reforms in our sample were implemented during the 1990s and the 2000s (see Figure 2 for details). Exceptions are reforms in the area of rail transport, which were also undertaken in the 1980s. In terms of geographical distribution, EU countries took more actions than non-EU countries on average, reflecting the greater scope for action in the former group.

Figure 1. Number of reforms by area (25 advanced economies, 1970-2020)



[6] It should also be highlighted that the reform database provides no information regarding the stance of current (or past) product and labor market regulations, which is not the purpose of this paper.

Table 1. Number of reform categories (25 advanced economies, 1970-2020)

Reform type	Number of reforms	Number of counter reforms	Reforms (% of total)	Counter-reforms (% of total)
Product market reforms	235	4	98.3	1.7
Labour market reforms	88	29	75.2	24.8

Note: The total number of observations is 906.

2.2 Income Distribution and Income Shares

The Gini index is obtained from the Standardized World Income Inequality Database (SWIID), constructed by Solt (2016) using the UN World Income Database and the Luxembourg Income Study. Taxes determine households' disposable income available for consumption and thus influence the income distribution. However, disposable income does not take into account indirect taxes. This creates a limitation when only disposable income is considered. As a result, we look at both pre-tax-and-transfers and post-tax-and-transfers Gini indices.[7] According to Poterba (2007), using the latter mitigates the reverse causality problem since post-tax-and-transfers vary "mechanically" and "economically" with the fiscal system whereas the pre-tax-and-transfers measure vary solely through the endogenous responses of labour supply or the general equilibrium effect on factor prices. In fact, the SWIID provides comparable estimates for two definitions of the Gini coefficient—the first based on market income and the second net of taxes and transfers—on an annual basis. This allows us to assess income inequality before and after fiscal redistribution through tax reforms and provides comparable Gini figures across countries and over a long span of time. However, the imputation methodology to standardize observations collected from various sources makes these series subject to measurement uncertainty (Jenkins, 2015).[8] Ferreira et al. (2015) compared eight inequality datasets[9] and conclude that "although there is much agreement across these databases, there is also a non-trivial share of country/year cells for which substantial discrepancies exist" and that "the methodological differences […] often appear to

[7] The Gini indicators based on disposable income cover the total market income received by all household members (gross earnings, self-employment income, and capital income), plus the current cash transfers they receive, less income and wealth taxes, social security contributions and current transfers that they pay to other households.

[8] Multiple imputation methods are used which essentially rely on assuming that ratios between different inequality measures are constant, or stable, and can therefore be used to predict those variables when they are not observed (Solt, 2016).

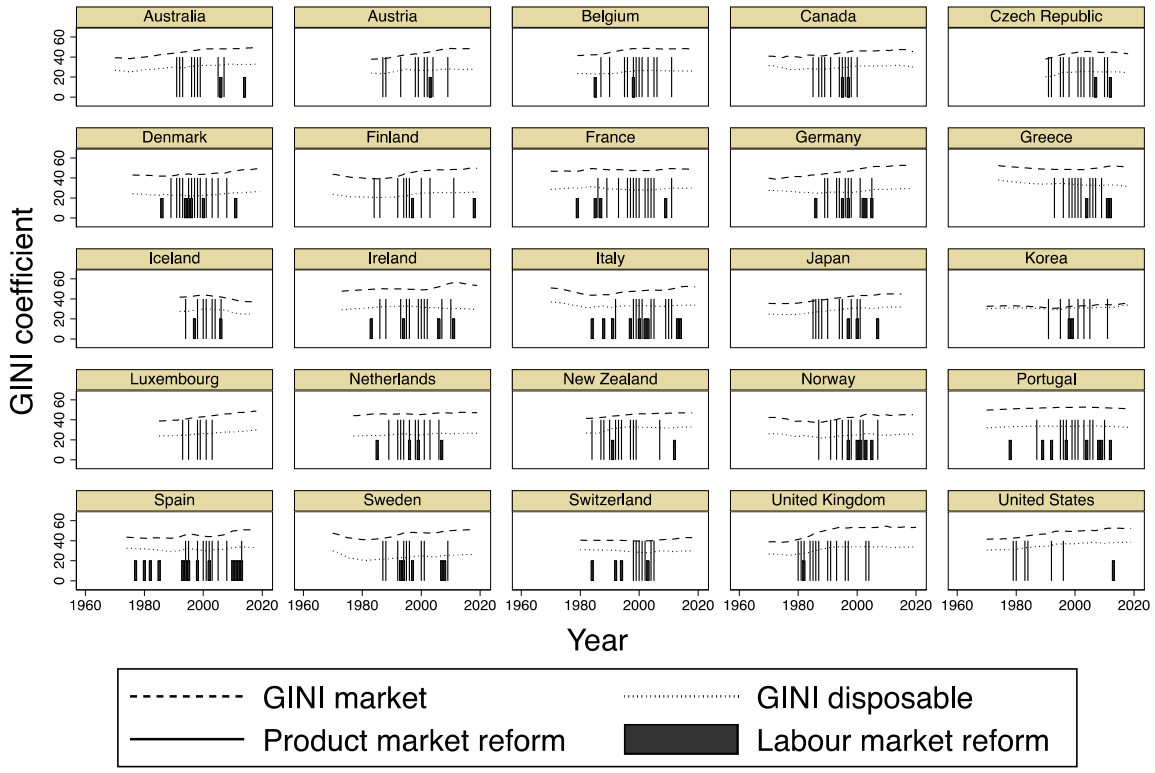
[9] Five are microdata-based: CEPALSTAT, Income Distribution Database (IDD), LIS, PovcalNet, and SocioEconomic Database for Latin America and the Caribbean (SEDLAC); two are based on secondary sources: "All the Ginis" (ATG) and the World Income Inequality Database (WIID); and one is generated entirely through multiple imputation methods: the Standardized World Income Inequality Database (SWIID).

be driven by a fundamental trade-off between a wish for broader coverage on the one hand, and for greater comparability on the other."

As a complement, we also use the top 1 and top 10 percent income shares as proxies for income distribution; the data have been retrieved from the World Inequality database (wid.world) maintained by Saez, Piketty, Zucman and others.

Figures 2a and 2b show the country-specific pattern of our different income distribution and income share measures, respectively, and reforms. Both GINI disposable and GINI market and the top 10% and top 1% income shares behave quite similarly.[10] Figure A1 in the online Appendix shows similar graphs for GINI market and GINI disposable and also for counter-reforms.

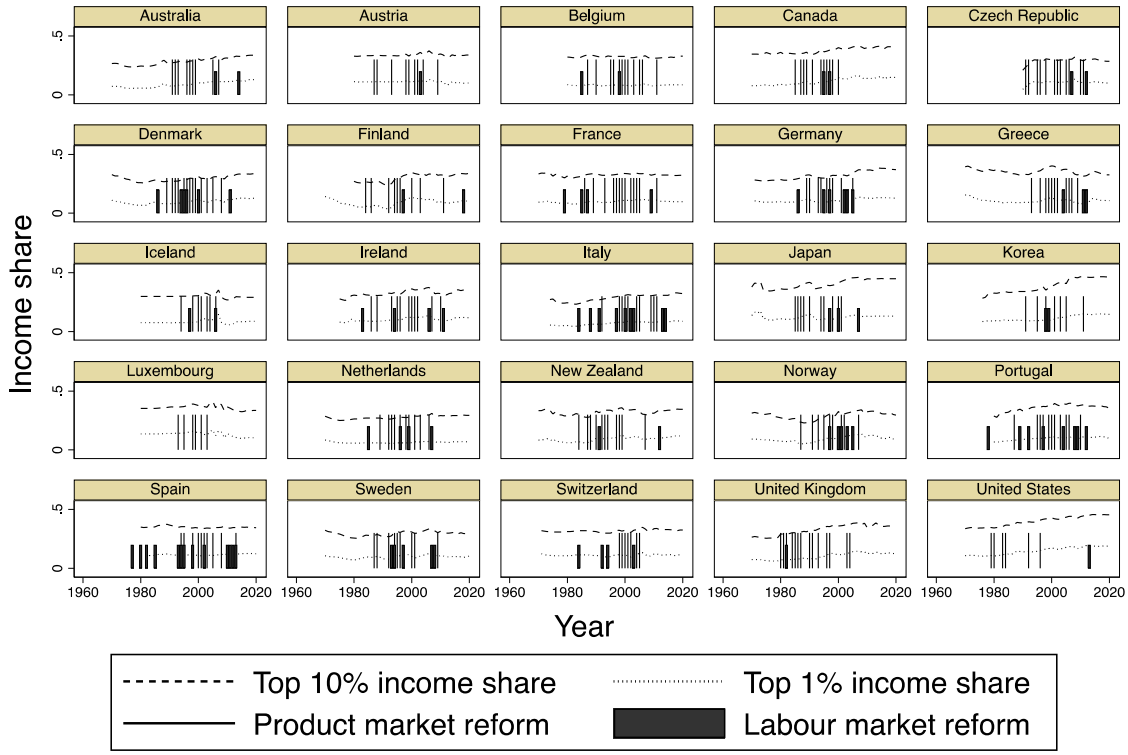
Figure 2.a GINI Market, GINI disposable and reforms over time by country



Notes: GINI market and GINI disposable come from the SWIID database. The bar and spike on the x-axis indicate whether a product or labour market reform took place in one or more of the underlying areas.

[10] Fisher-type augmented Dickey-Fuller test suggests that the change in income inequality (GINI market and disposable) and in income shares are panel stationary (results are available from the authors upon request).

Figure 2.b Top 10% and top 1% income shares, and reforms over time by country



Notes: Top 10% income share and the top 1% income share come from the World Inequality database (wid.world). The bar and spike on the x-axis indicate whether a product or labour market reform took place in one or more of the underlying areas.

2.3 Other data

Other variables used as controls or conditional variables include real GDP (and the output gap calculated on the basis hereof) and the employment rate. These were retrieved from the Pen World Table version 10.0. We also include the inflation rate and social expenditures as percent of GDP. These were retrieved from the OECD. When we endogenize reforms, we follow de Haan and Wiese (2022) and include several political-economy variables based on our own update of the Database of Political Institutions in our model to predict reforms.[11] Specifically, we add: (1) A variable counting the number of years a government has held office to capture the idea that reforms become less likely the longer a government holds office. (2) An election variable reflecting that an executive or legislative election took place to capture the idea that reforms typically are more likely after a new government takes office (Haggard and Webb, 1993). (3) A variable measuring government ideology to capture the idea that the

[11] https://publications.iadb.org/en/database-political-institutions-2020-dpi2020. Our updated version is available upon request.

political colour of a government matters in terms of the policies it implements (Hibbs, 1977). (4) A variable measuring political fractionalisation (effective number of parties in government) to capture the idea that more politically fragmented governments may find it harder to implement economic reforms (Alesina and Drazen, 1991).

3. Methodology[12]

3.1 Local Projections: Unconditional

The basic LP unconditional regression model that we estimate takes the following form:

$$GINI_{i,t+h} - GINI_{i,t} = \alpha_i + \beta_{1jh} \sum_{j=0}^{4} d_{i,t-j} + \beta_{2lh} \sum_{l=0}^{6} \left(GINI_{i,t-l} - GINI_{i,t-1-l}\right) + \beta_{3h} \sum_{h=1}^{h} d_{i,t+h} + \beta'_{4ch} \sum_{c=0}^{1} X_{i,t-c} + \delta_t + u_{i,t+h} \quad (1)$$

where $GINI$ denotes a GINI index proxy (or one of the income-share variables); h is the forecast horizon set at 9 years since the effect of reforms can take time to materialize.[13] Country and time fixed-effects, α_i and δ_t, respectively, are included. $d_{i,t}$ denotes the reform indicators. We include treatment lags in our models. But contrary to the leads, it is an empirical issue how long the effect of reforms persists in the data. We use Akaike's information criterion to determine the lag length: we employ 4 lags of the reform indicator and 7 lags of the dependent variable.[14] Since previous reforms may impact inequality ahead in time, we include the number of leads of the treatment indicator equal to the forecast horizon such that the term $\beta_{3h} \sum_{h=1}^{h} d_{i,t+h}$ captures the Teulings and Zubanov (2014) correction. Including the leads avoids the bias that results from overlapping forecast horizons.[15] $X_{i,t}$ is a vector of additional control variables. As controls we use the contemporaneous term and the first lag of: real GDP growth per capita and the employment rate (both from PWT 10.0), and the annual percentage change in the consumer price index (from OECD). These variables affect the results and their coefficients are significant in most regressions. Notice, that both reform indicators at time *t* are

[12] This section draws on de Haan and Wiese (2022).
[13] But some of the conditional AIPW estimates are only possible to estimate with *h* up to 5 years.
[14] For different types of reforms and the Gini disposable or market the information criteria suggest slightly fewer lags. To avoid potential omitted variables we chose same specification for all our models.
[15] The bias increases with the forecast horizon, see Teulings and Zubanov (2014). The leads of the treatment dummies ensure that it is registered in the data if the outcome for a specific observation is affected by a treatment ahead in time. This most often is the case for control observations, i.e., country-year pairs where no reform took place. However, reforms may occur repeatedly within our forecast horizon of 9 years. In that case, the Teulings and Zubanov (2014) approach also registers that the outcome of a treated observation may be affected by later treatments, which otherwise would have meant an upward bias in the effect of reforms.

included simultaneously in the regressions. For example, when we estimate the effect of product market reforms, $X_{i,t}$ contains the contemporaneous labour market reform indicator, but not its lags or leads. In the one-stage simple LP results we calculate Spatial Correlation Consistent (SCC) standard errors as proposed by Driscoll and Kraay (1998).

All in all, we have 906 observations when we project one period ahead, this decreases with 25 observations for each additional year-ahead forecast. Thus, when we forecast 9 years ahead, we end up with 706 observations.

3.2 Local Projections: Conditional on social spending

In our second specification, we estimate a threshold model like Ramey and Zubairy (2018) and de Haan and Wiese (2022). Here, we condition the inequality effect of reforms on the level of government social expenditure (expressed as percentage of GDP).[16] Drawing on Bergh et al. (2020), who examine the conditioning effect of social spending on the impact of globalization on income inequality, we can motivate this conditioning effect as follows. Social spending can moderate the effect of reform by facilitating income smoothing (also known as intra–individual redistribution) and by generating vertical income redistribution from winners to losers (also known as inter–individual redistribution).[17] Income smoothing refers to individuals smoothing their income over time to overcome both short-run fluctuations due to, for example, illness or unemployment, and the life time changes via, for example, public pensions. If reform causes inequality mainly by increasing income volatility, social spending in the form of intra-individual redistribution schemes may dampen the effect on inequality, and the effect will be stronger for disposable income because of transfers. If product and labour market reforms create winners and losers, and winners tend to be high-income earners while losers tend to be low-income earners, social spending that produces inter-individual redistribution would negatively moderate the association between reform and inequality. The effect should be stronger for the net income distribution because it would partly operate via transfers to the losers of globalization. To identify the conditioning effect of social spending,

[16] Data come from the OECD. See Haelg et al. (2022) for a discussion of the drivers of social spending.

[17] The ability to soften the inequality-raising effects of reform may be hindered by high public debt and mounting long-term fiscal pressures; see Banerji et al. (2017) for an empirical analysis and case studies assessing the fiscal impact of labor and product market reforms in advanced economies and an evaluation of the case for complementing reforms with fiscal support. Also, IMF (2016) provides support for the view that expansionary fiscal policy enhances the benefits from labor market reforms: during periods of relatively large fiscal expansions, reforms to employment protection legislation and unemployment benefits reduce the unemployment rate.

we distinguish between observations above and observations below the median level of government social expenditure.

The model estimated is:

$$GINI_{i,t+h} - GINI_{i,t} = I_{i,t}^{Low}\left[\alpha_i + \beta_0 d_{i,t} + \beta_{1jh}\sum_{j=1}^{4} d_{i,t-j} + \beta_{2lh}\sum_{l=0}^{6}\left(GINI_{i,t-l} - GINI_{i,t-1-l}\right) + \beta_{3h}\sum_{h=1}^{h} d_{i,t+h} + \beta'_{4h}\sum_{c=0}^{1} X_{i,t-c} + \delta_t\right] + (1 - I_{i,t}^{Low})\left[\alpha_i + \beta_0 d_{i,t} + \beta_{1jh}\sum_{j=1}^{4} d_{i,t-j} + \beta_{2lh}\sum_{l=0}^{6}\left(GINI_{i,t-l} - GINI_{i,t-1-l}\right) + \beta_{3h}\sum_{h=1}^{h} d_{i,t+h} + \beta'_{4h}\sum_{c=0}^{1} X_{i,t-c} + \delta_t\right] + e_{i,t+h} \quad (2)$$

Where $I_{i,t}^{Low}$ is an indicator variable that corresponds to a low level of social spending. All other variables are as before. It is important to check whether reforms are unrelated to the conditioning variables. If they are not, the effects that we estimate could also be driven by the condition of whether social spending is above or below the sample median. Table A7 in the online Appendix shows that (counter) reforms and social spending are unrelated.

3.3 AIPW model: unconditional

The major drawback of equation (1) is that it ignores that structural reforms may be introduced in countries/years where the expected benefits of reform are higher than in countries/years where no reforms are introduced. Failing to account for this can lead to selection bias. Following de Haan and Wiese (2022), we therefore proceed with a quasi-experimental method, namely the Augmented Inverse Probability Weighted (AIPW) estimator proposed by Jordà and Taylor (2015) and Glynn and Quinn (2010).

In the first step, we estimate logit models to estimate the probability that a structural reform occurs. Specifically, we use logit models to estimate the probability of treatment at *t+1*, i.e., product market and labour market reforms one period ahead. As controls we use: other reform indicators, the output gap, real GDP growth, the employment rate, inflation rate, and the lag of these economic variables. We also include ideology of government, political fragmentation of government, years in office, effective number of government parties, any type of election (legislative + executive), and the 3rd degree polynomial of the time since the previous reform to handle duration dependence. We include time and country fixed effects despite of the incidental parameter problem in the logit model.

In the second step, we use local projections specified as equation (2), but weighing observations inversely according to the predicted probabilities from the logit model. Specifically, observations in which a reform took place are assigned a weight (*w*) by the inverse of *p*, the probability score, (*w=1/p*). Whereas the observations without reform receive a weight

of the inverse of one minus the probability score (*w=1/(1-p)*). This means that treated observations with a low probability score receive a higher weight in the regression along with control observations with a high probability score. This places more weight on observations that are comparable and hence reduces treatment selection bias. The augmented weighting adds an adjustment factor to the treatment effect when the estimated probability scores are close to zero or one. The method is doubly robust and only requires one of the following two conditions to hold: The conditional mean model is correctly specified or the probability score model is correctly specified. Weighting can be interpreted as removing the correlation between the covariates and the reform indicator, and regression removes the direct effect of the covariates (see Imbens and Wooldridge, 2009 for more details). We report the Average Treatment Effect (ATE), which is calculated as the average difference between treated and non-treated (control) observations based on the weighted OLS regression line for both groups.

In all AIPW outcome regressions, we use the same specification as the LPs identified in equation (1). However, to correct for the imported uncertainty from the first stage propensity score estimation in the second stage, we calculate block-bootstrapped standard errors in our AIPW models. That is, we construct the bootstrap by repeatedly drawing blocks of observations, i.e., drawing countries rather than individual observations with replacement. This way, serial correlation in the error terms is also taken into account. First, we test whether spatial dependence is present in the disturbances between the cross-sectional units when using standard errors clustered at the country level. For this purpose, we use the Pesaran (2015) test, which is standard normally distributed. So, a value of the test statistic outside the [-1.96, +1.96] interval rejects the null hypothesis of weak cross-sectional dependence. Although the tests sometimes reject the hypothesis, we use the cluster-bootstrapped errors since cross-sectional dependence does not bias our point estimates; it only leads to an efficiency loss, (see Elhorst, 2013).

3.4 AIPW model: conditional

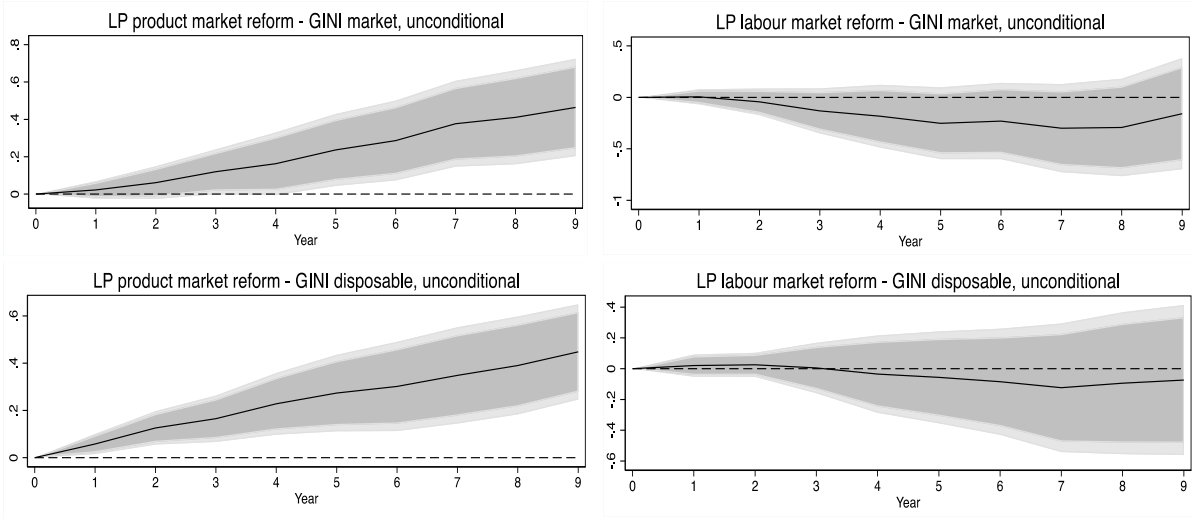
The AIPW models were also estimated conditioning for the level of social spending (similar to equation (2) above), but again weighted inversely according to the estimated propensity scores.

4. Empirical Results

4.1 Baseline Unconditional Results

We begin the analysis with the baseline unconditional responses of our income inequality proxies to the different structural reforms. Figure 3 plots the response of inequality to structural reform as a black line together with the 90 and 95 percent confidence bands in dark and light grey, respectively. We can observe that following a product market reform income inequality increases significantly and persistently over time. In contrast, labour market reforms are followed by a decrease in the GINI index with the point estimates being borderline statistically significant at standard levels for the market income GINI index but not for the disposable income GINI index.[18]

Figure 3. Unconditional Local Projections: effect of product and labour market reforms on GINI market and GINI disposable



Notes: The solid black lines in the figure plots the impulse responses of product market (left panel) and labour market (right panel) reforms on GINI measures. Year=1 is the first year after a reform took place at year=0. So, the position of the line at e.g., year=9 shows the change in the GINI coefficient 9 years after the reform. The dark grey shaded areas display the 90% SCC error bands; the light grey shaded areas display the 95% SCC error bands. See Tables A1-A4 in the online Appendix A for details.

To check whether the reforms can be treated as exogenous, we perform the balancing test as described in Section 3.3. In an ideal Randomized Controlled Trial (RTC) setting where treatments are assigned randomly, we would expect the probability density function for each

[18] If we distinguish between two types of labour market reforms, namely EPL and unemployment benefits (UB) reforms, the results (available on request) suggest that the negative effect of labour market reforms is notably due to EPL reforms, although the large confidence intervals preclude drawing strong conclusions. The difference between the two measures of inequality—that is market vs. disposable—is net transfers (transfer minus taxes). So, a priori there is no reason for EPL reforms to affect them differently but UB affects transfers, so it will have a larger effect on disposable Gini relative to market Gini.

control variable included in equation (1) to be the same for each sub-population of treated and control units. The overlap of the densities should be close to perfect. A simple way to check whether this condition holds is to do a test of equality of means between the subsamples. This is done in Table A5 in the online Appendix. The balance tests suggest that labour and product market reforms cannot be viewed as exogenous events, while Table A5 also shows that there is no treatment selection in covariates for counter-reforms. So, for counter-reforms the simple LP estimates do not suffer from selection on covariates.

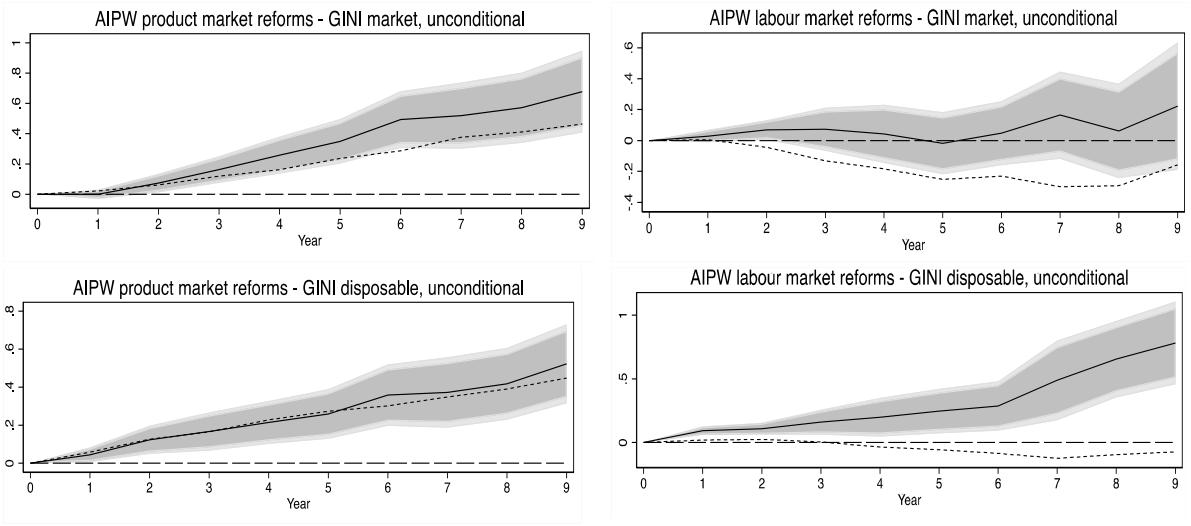
Table A6 in the online Appendix presents the results of the logit regression output predicting treatment at t+1. Smooth kernel density estimates of the distribution of the propensity scores for treatment and control units (shown in Figure A2 in the Appendix) are used to check for overlap. The plotted densities are based on models 1 and 2 in Table A6, respectively. In the ideal RCT setting, the overlap between the distribution of propensity scores for treated and control units would be near identical. Although the logit models used to estimate the propensity scores all have high predictive ability, the smooth kernel density estimates shown in Figure A2 show that there is considerable overlap between the distributions for treated and control units. Furthermore, the area under the ROC curve is statistically significantly different from 0.5 and ranges between 0.8 and 0.9. This suggest that our model is well able to predict reforms.

Figure 4 shows the unconditional responses of the income inequality proxies to the different structural reforms if we use AIPW estimation (so taking the endogeneity of reform into account). Here the solid black line plots the AIPW estimation results while the dashed line shows the simple LP outcomes. When we endogenize reform, we again get a positive and statistically significant effect on income inequality following a product market reform (in fact, the simple LP and AIPW responses are not statistically different from one another). After 9 years, GINI market has increased with almost .7 points after a product market reform. However, contrary to the simple LP results, the AIPW results suggest that labour market reforms lead to an unequivocal rise in GINI disposable that is significant and persistent over time. After 9 years, GINI disposable has increased with almost .8 points after a labour market reform. The effect of labour market reforms on GINI market is positive and significant but short-lived.

If we isolate the counter-reforms (or reform-reversals, that is, those for which the reform indicator takes value -1), we obtain the results displayed in Figure 5. Irrespective of the dependent variable, the responses are negative and statistically significant following a counter-

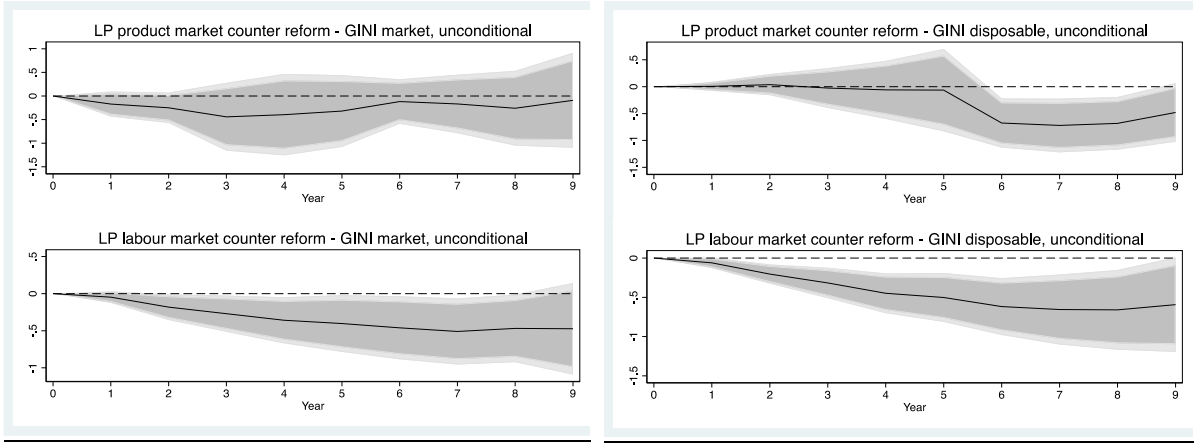
reform. So, these results are consistent with our findings for endogenized reforms (the balance tests suggest that counter-reforms can be treated as exogenous).

Figure 4. Unconditional AIPW: effect of product and labour market reforms on GINI market and disposable



Notes: The solid black lines in the figure plots the impulse responses of product market (left panel) and labour market (right panel) reforms on GINI measures, as specified in equation 1. Year t=1 is the first year after a reform took place at year=0. So, the position of the line at e.g., year=9 shows the ATE of reform on the absolute change in the GINI coefficient 9 years after the reform. The dashed line plots the simple LP responses from Figure 3. The dark grey shaded areas display the 90% bootstrapped error bands; the light grey shaded areas display the 95% bootstrapped error bands. See Table A8 for further details.

Figure 5. Unconditional Local Projection: effect of labour and product market counter-reforms on Gini market and GINI disposable

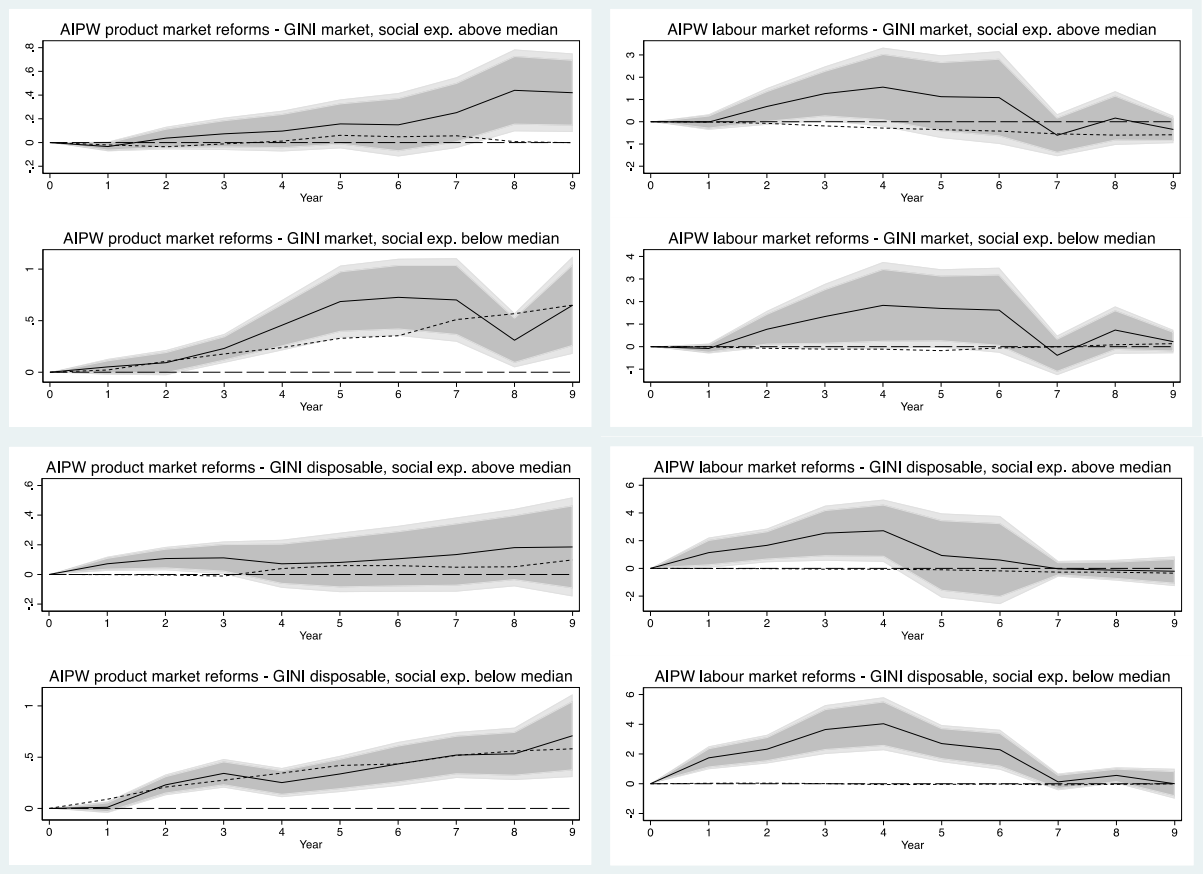


Notes: The solid black lines in the figure plots the impulse responses of product market (left panel) and labour market (right panel) counter reforms on GINI measures, as specified in equation 1. Year=1 is the first year after a reform took place at year=0. So, the position of the line at e.g., year=9 shows the change in the GINI coefficient 9 years after the reform. The dark grey shaded areas display the 90% SCC error bands; the light grey shaded areas display the 95% SCC error bands. See Tables A12-A15 for details.

4.2 Conditional Results

The results for the AIPW model when we condition the effect of structural reforms on the level of social spending (expressed in percent of GDP) are shown in Figure 6. It shows the outcomes when reforms are endogenized and conditioned on the level of social spending. The figure suggests that the rising inequality effects of reforms occur especially in countries that have below median levels of social spending (computed over all countries and years available in the dataset); in countries where social spending is above the sample median, the effect of reform is mostly statistically insignificant.

Figure 6. Conditional AIPW: effect of product and labour market reforms on GINI market and disposable – the role of social expenditures (above below or below sample median)

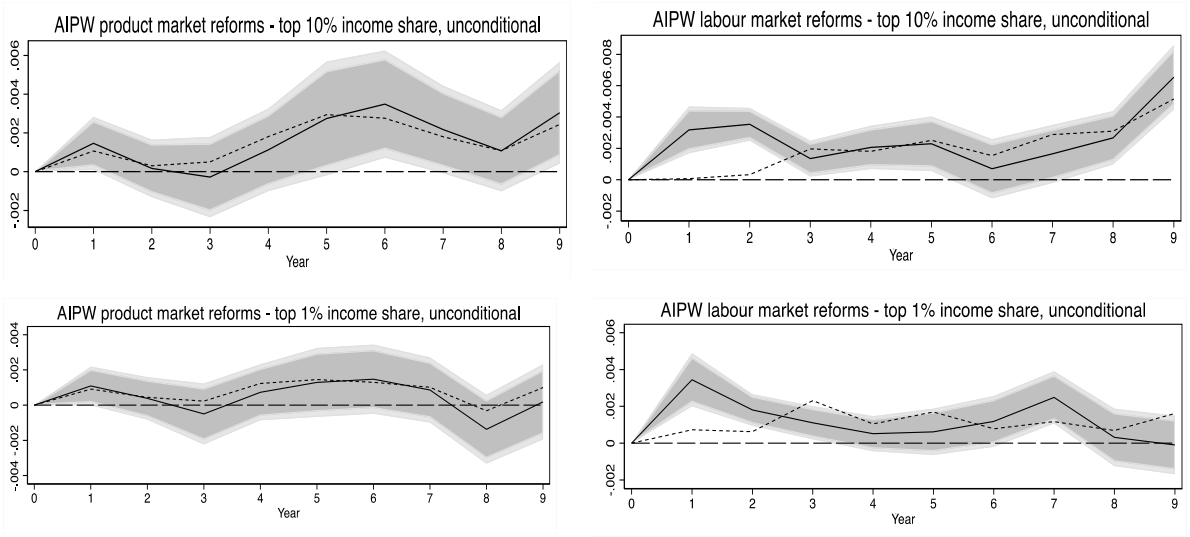


Notes: The solid black lines in the figure plots the impulse responses of product market (left panels) and labour market (right panels) reforms on GINI measures when social expenditures are above or below the sample median, as specified in equation 2. Year=1 is the first year after a reform took place at year=0. So, the position of the line at e.g., year=9 shows the ATE of reform on the absolute change in the GINI coefficient 9 years after the reform. The dashed line plots simple LP responses. Truncated propensity scores are used to stabilize the estimator for product and labour market reforms. For labour market reforms we restrict the forecast horizon to five years. We lose too many observations at longer horizons (because of fewer treatments), this makes the estimator unstable. The dark grey shaded areas display the 90% bootstrapped error bands; the light grey shaded areas display the 95% bootstrapped error bands. See Table A9 for details.

4.3 Robustness and Sensitivity

We started by replacing the Gini coefficient as dependent variable with two income shares, top 10% and top 1%. Results of unconditional AIPW as depicted in Figure 7 show that while the top 1% seems unaffected by either type of reforms (except the AIPW after labour market reforms in the short run), the top 10% income share rises following a product and labour market reform. The effect is more precisely estimated in the medium term in the case of labour market reforms. Counter-reforms—not shown—do not have any statistically significant effect on income shares.

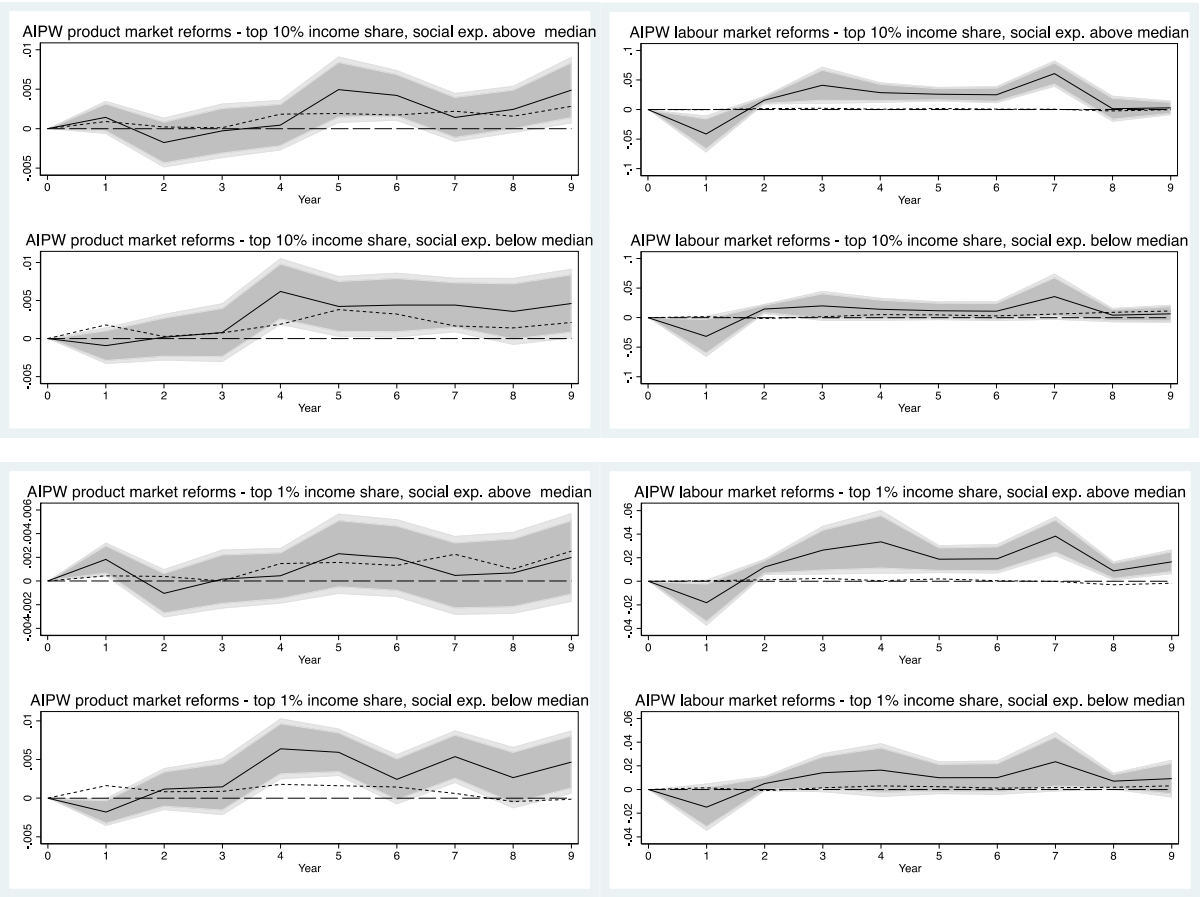
Figure 7. Unconditional AIPW: effect of product and labour market reforms on Income Shares



Notes: The solid black lines in the figure plots the impulse responses of product market (left panel) and labour market (right panel) reforms on income shares. Year=1 is the first year after a reform took place at year=0. So, the position of the line at e.g., year=9 shows the ATE of reform on the absolute change in the income share 9 years after the reform. The dash line plots the simple LP responses. The dark grey shaded areas display the 90% bootstrapped error bands; the light grey shaded areas display the 95% bootstrapped error bands. See Table A10 for details.

As for the conditional effects, Figure 8 shows that, in contrast to our findings for the Gini coefficient, the level of social spending does not condition the effect of reforms on the top-income shares.

Figure 8. Conditional AIPW: effect of product and labour market reforms on Income Shares – the role of social spending



Notes: The solid black lines in the figure plots the impulse responses of product market (left panels) and labour market (right panels) reforms on income shares when social expenditures are above or below the sample median. Year=1 is the first year after a reform took place at year=0. So, the position of the line at e.g., year=9 shows the ATE of reform on the absolute change in the income share 9 years after the reform. The dashed line denotes simple LP responses. Truncated propensity scores are used to stabilize the estimator for product and labour market reforms. For labour market reforms we restrict the forecast horizon to five years. We lose too many observations at longer horizons (because of fewer treatments), this makes the estimator unstable. The dark grey shaded areas display the 90% bootstrapped error bands; the light grey shaded areas display the 95% bootstrapped error bands. See Table A11 for details.

Other robustness checks conducted included the following. First, we checked for sample sensitivity by re-estimating the unconditional key LPs and AIPWs keeping only EU countries in the time period in which these countries were part of the EU. We also checked whether Southern European countries acted as outliers and removed Portugal, Italy, Greece, and Spain. This can be justified as some of the (labour market) reforms were implemented during times of tax hikes in these countries (particularly during the period of financial assistance that followed the Global Financial Crisis) and this fact could be affecting our results. Reassuringly, results (not shown, but available on request) remained qualitatively similar.

Second, to investigate whether our main results are merely artefacts of the estimator applied to our data, we conduct falsification tests by simulating all our main AIPW regression specifications (for reforms) and LP regression specifications (for counter-reforms) with placebo reforms. To maintain comparability with our main results, we randomly draw the placebo reforms from a binomial distribution with a probability of treatment equal to the proportion of product and respectively labour market (counter-) reforms in our sample, see de Haan and Wiese (2022) for a similar approach. Figures A6-A7 and A8-A9 in the online Appendix report the results of the falsification test for the unconditional product and labour market reforms, respectively. Figures A10-A13 and A14-A17 show the results of the falsification test for product and labour market reforms conditional on social expenditures. In Figures A18-A21 report the results of the falsification test for the counter-product and -labour market reforms. The simulated t-values are normally distributed around zero for all forecast horizons, types of reforms and inequality measures. Furthermore, except for the unconditional labour market reforms, the estimated significant effects from our main analysis are clearly placed in the tails of the distribution of the simulated t-value of the placebo effects.[19] This suggests that the significant ATEs that we find in our main analysis are not the result of type I errors. The unconditional labour market simulation results suggests that we cannot exclude the possibility that our main findings concerning these reforms are the result of type I errors as the spread of the placebo reforms is very wide. On the other hand, these results reinforce the view that when estimating the effects of labour market reforms on income inequality it is important to condition for social expenditures.

Finally, a cause of concern about our results may be the Nickell (1981) bias according to which we may be getting biased and inconsistent estimates. As Nickell (1981) shows, the demeaning process creates a correlation between the regressor and the error term which creates a bias in the estimated coefficient of the lagged dependent variable. If the independent variables of interest are correlated with the lagged dependent variable their coefficients may be biased as well. This is particular a problem in a large N, small T context. We have small N and relatively large T. The bias can be gauged in the following way. If the AR(1) coefficient β_2 on $GINI_{i,t+1} - GINI_{i,t}$ is positive (as in our case), the bias is invariably negative, so that the persistence of the β_2 coefficient on $GINI_{i,t+1} - GINI_{i,t}$ will be underestimated. For reasonably large values of T, the limit of β_2 on $GINI_{i,t+1} - GINI_{i,t}$ as N $\rightarrow \infty$ will be approximately $-(1$

[19] Although we have very few counter product market reforms in our sample, the placebo tests suggests that the significant inequality reducing effect that we find of these counter-reforms are not driven by the low number of counter reforms, see the 6th, 7th and 8th year forecast horizon in Figure A19.

+ β_2)/(T − 1). In our case β_2 is close to, but below 0.5 in all regressions and T is above 40 in most cases, so that the bias will be about -0.038, i.e., less than 1/12 of the estimated coefficient. This is even assuming that N tends to infinity, which is not the case in our application. Furthermore, the correlation between the labour and product market indicators and $GINI_{i,t+1} - GINI_{i,t}$ is low and negative. The correlation coefficient for product and (labour) market reforms and the lagged changes in GINI market is -0.007 (-0.068) and -0.075 (-0.031) for GINI disposable. Because of this negative correlation, the Nickell bias also leads to an underestimation of the impulse responses of reforms on inequality. This, in combination with the relative low size of the biased AR(1) term and the large T relative to N leads us to conclude that the Nickell bias in our case is negligible.[20]

5. Conclusions and Policy Implications

We examined the impact of labour market and product market reforms on income inequality in 25 OECD countries between 1970 and 2020, using the local projections (LP) approach (Jordà, 2005). Our results suggest that both (endogenized) product and labour reform lead to more inequality, proxied by the Gini coefficient, if we do not condition on social spending. However, conditioning the effect of structural reforms on income inequality on the level of government social spending yields that both product and labour market reforms are more damaging to income distribution for lower levels of social expenditure. This finding suggests that when fiscal space is available to compensate potential reform-losers, it should be used accordingly to minimize the distributional drawbacks of reforms. Another remarkable finding is that our results suggest that structural reforms do not affect the top 1% income share, while the top 10% income share rises following a product and labour market reform; the latter effect is not conditioned by the level of social spending.

Another noticeable finding particularly concerning both the unconditional and conditional effects of labour market reforms is that the inequality increasing effect is larger for GINI disposable compared to GINI market. This finding supports the view that reductions in unemployment benefits may not have a very large effect on unemployed workers' willingness to accept a job (Krueger and Mueller, 2016; Jaeger et al., 2020). At the same time, reductions in unemployment benefits imply lower economic activity, thereby reducing the demand for

[20] Generalized Method of Moments (GMM) estimation is not suited in cases of large T and small N. Rather a method based on recursive substitutions could be used. But as noted in Teulings and Zubanov (2014), a disadvantage of such an approach is a sizeable efficiency loss.

workers, see Hellwig (2021) for an overview of this literature. GINI disposable, which corrects for the unemployment benefit transfer that is reduced (in duration or size) as a result of a reform, is going to be more sensitive to this type of reform compared to GINI market.

Employment protection legislation, the other main part of our labour market reform indicator, contains fewer elements that are directly traceable to taxes and transfer. As this part of the indicator mainly concerns flexible hiring and firing conditions it cannot explain the observed differences between GINI market and GINI disposable. Unfortunately, we do not have enough employment protection legislation or unemployment benefits reforms in our sample to single out whether it is indeed unemployment benefit reforms that drive this result.

Our results suggest that when introducing product and labour market reforms, policymakers should take their effect on income inequality into account. Without measures to counteract this increase in inequality, public support for the reform may wane. This holds especially for countries with a low level of social spending.

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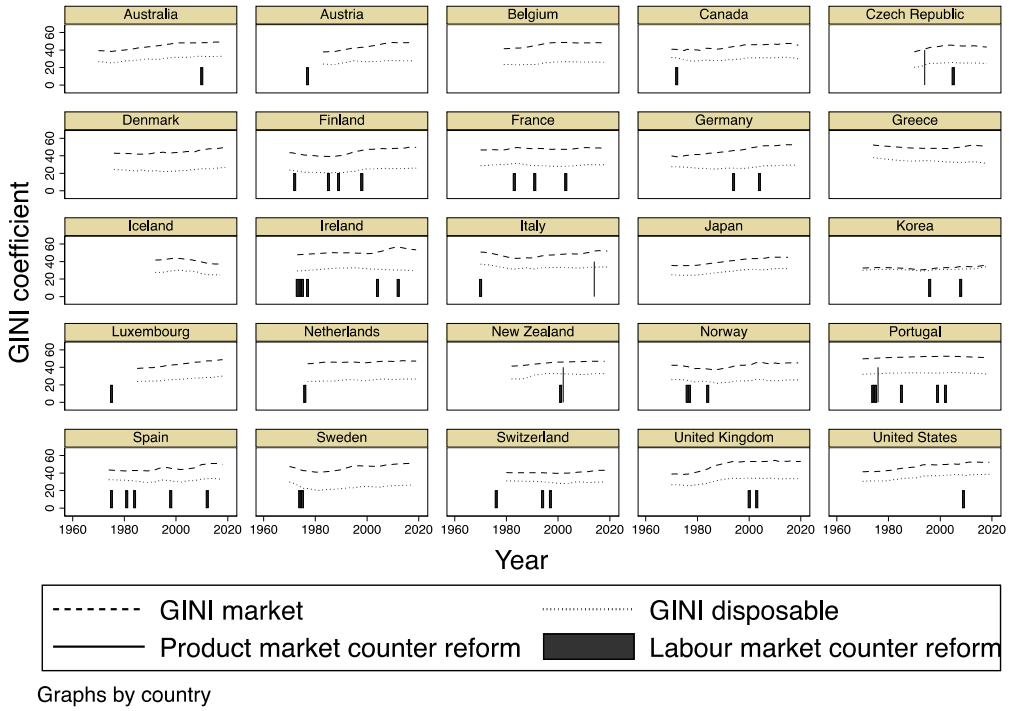
APPENDIX A
Figures

Figure A1. GINI Market, GINI disposable and counter reforms over time by country



Notes: GINI market and GINI disposable are from the SWIID database. The bar and spike on the x-axis indicate whether a product or labour market counter reform took place in one or more of the underlying areas.

Figure A2. Distribution of the estimated probabilities of treatment

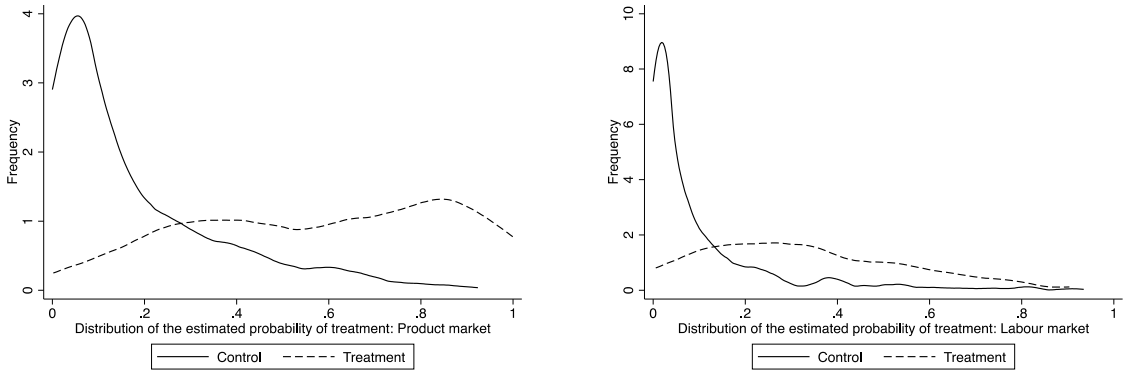
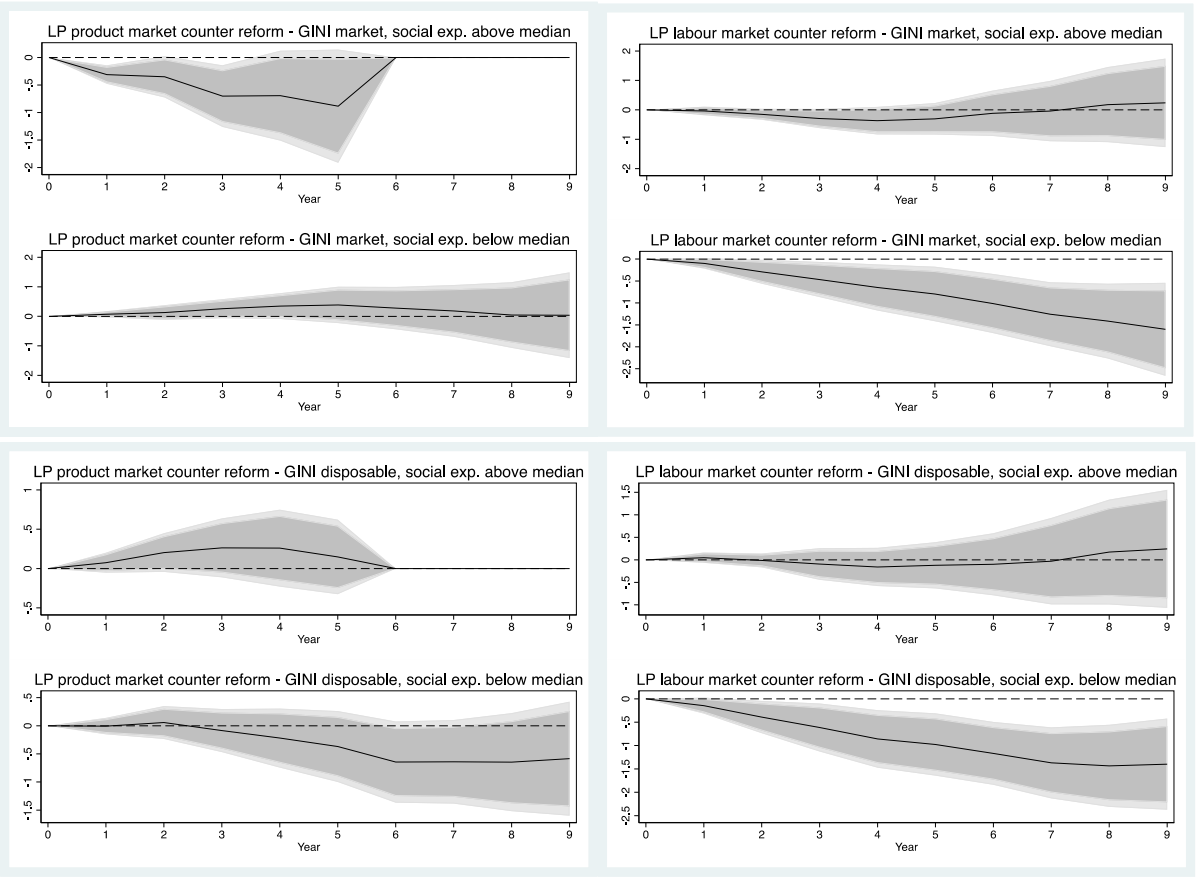
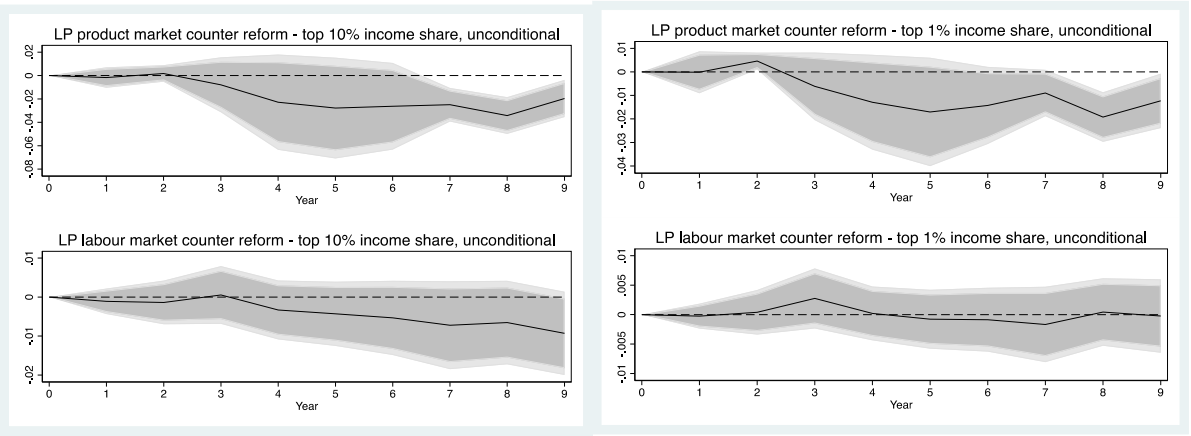


Figure A3. Local Projections: effect of labour and product market counter-reforms on Gini market and GINI disposable, conditional on social expenditures



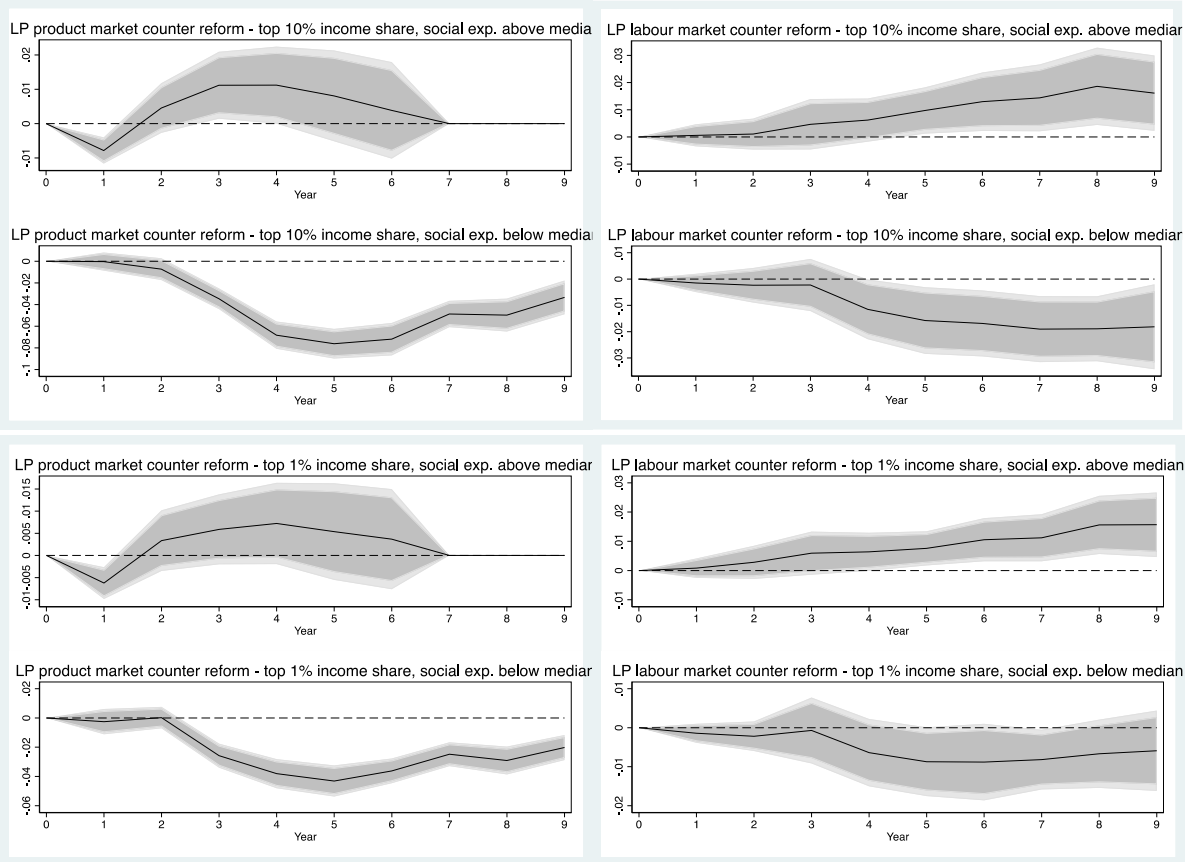
Notes: The solid black lines in the figure plots the impulse responses of product market (left panel) and labour market (right panel) counter reforms on GINI measures when social expenditures relative to GDP are above or below the sample median, as specified in equation 2. Year=1 is the first year after a reform took place at year=0. So, the position of the line at e.g., year=9 shows change in the GINI coefficient 9 years after the reform. Because of too few product market counter reforms the counter reform indicator is dropped due to collinearity at h>5 when social expenditures are above the median. The dark grey shaded areas display the 90% SCC error bands; the light grey shaded areas display the 95% SCC error bands. See Table A19 for details.

Figure A4. Unconditional Local Projection: effect of labour and product market counter-reforms on top 10% and top 1% income shares



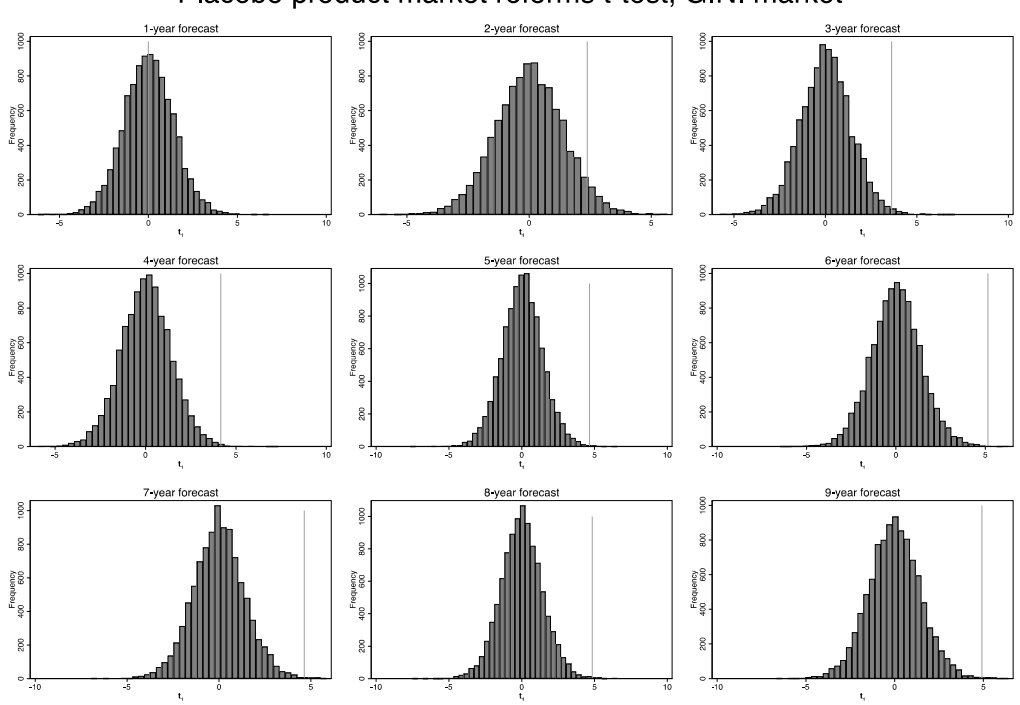
Notes: The solid black lines in the figure plots the impulse responses of product market (left panel) and labour market (right panel) counter reforms on income shares, as specified in equation 1. Year=1 is the first year after a reform took place at year=0. So, the position of the line at e.g., year=9 shows the change in the income share 9 years after the reform. The dark grey shaded areas display the 90% SCC error bands; the light grey shaded areas display the 95% SCC error bands. See Table A20 for details.

Figure A5. Local Projections: effect of labour and product market counter-reforms on top 10% and top 1% income shares, conditional on social expenditures



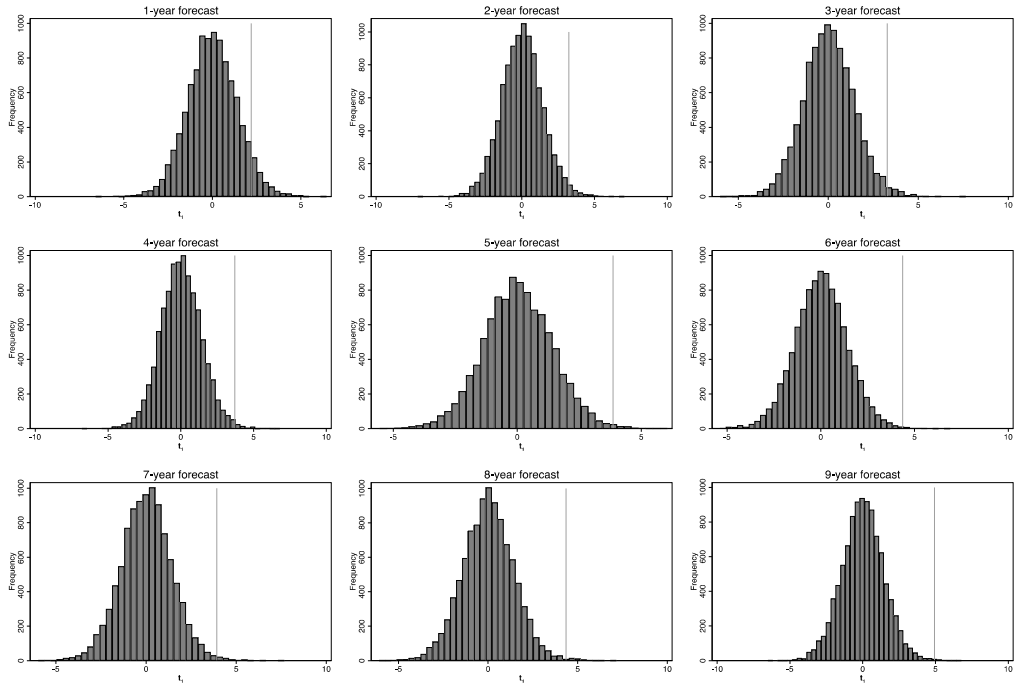
Notes: The solid black lines in the figure plots the impulse responses of product market (left panel) and labour market (right panel) counter reforms on income shares when social expenditures relative to GDP are above or below the sample median, as specified in equation 2. Year=1 is the first year after a reform took place at year=0. So, the position of the line at e.g., year=9 shows change in the income share 9 years after the reform. Because of too few product market counter reforms the counter reform indicator is dropped due to collinearity at h>6 when social expenditures are above the median. The dark grey shaded areas display the 90% SCC error bands; the light grey shaded areas display the 95% SCC error bands. See Table A21 for details.

Figure A6. Placebo product market reforms, GINI market



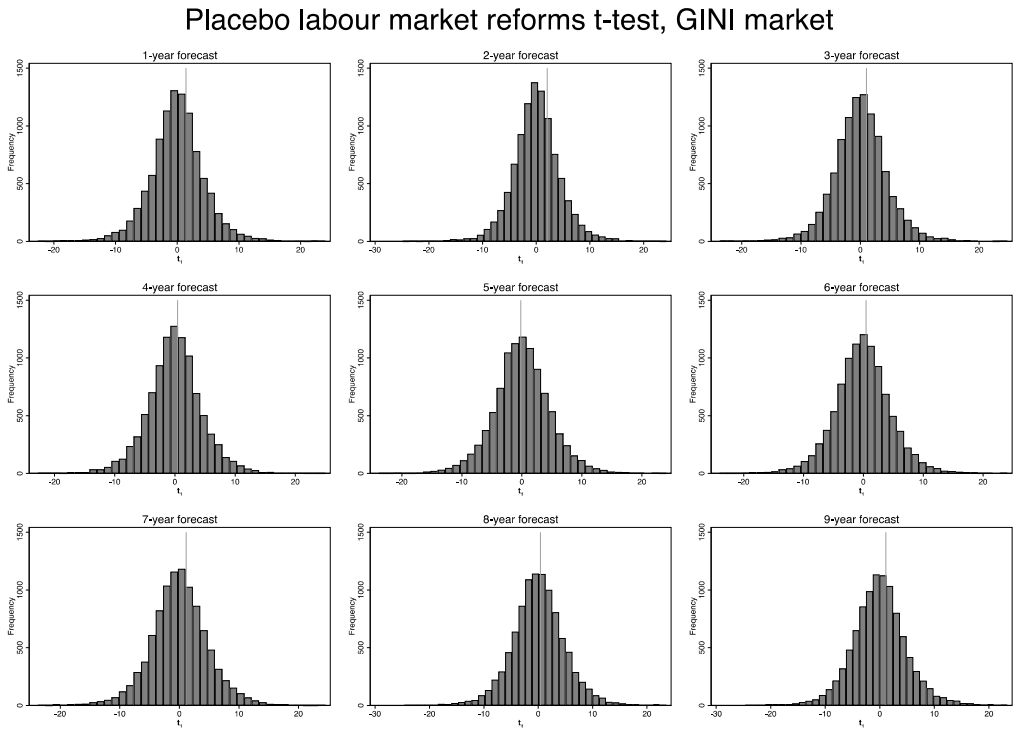
Notes: Share of reforms in the simulations (same as in our sample) = 26%. The simulations are based on 10.000 repetitions. The thin grey vertical line represents the t-value from our estimations, see Table A8.

Figure A7. Placebo product market reforms, GINI disposable



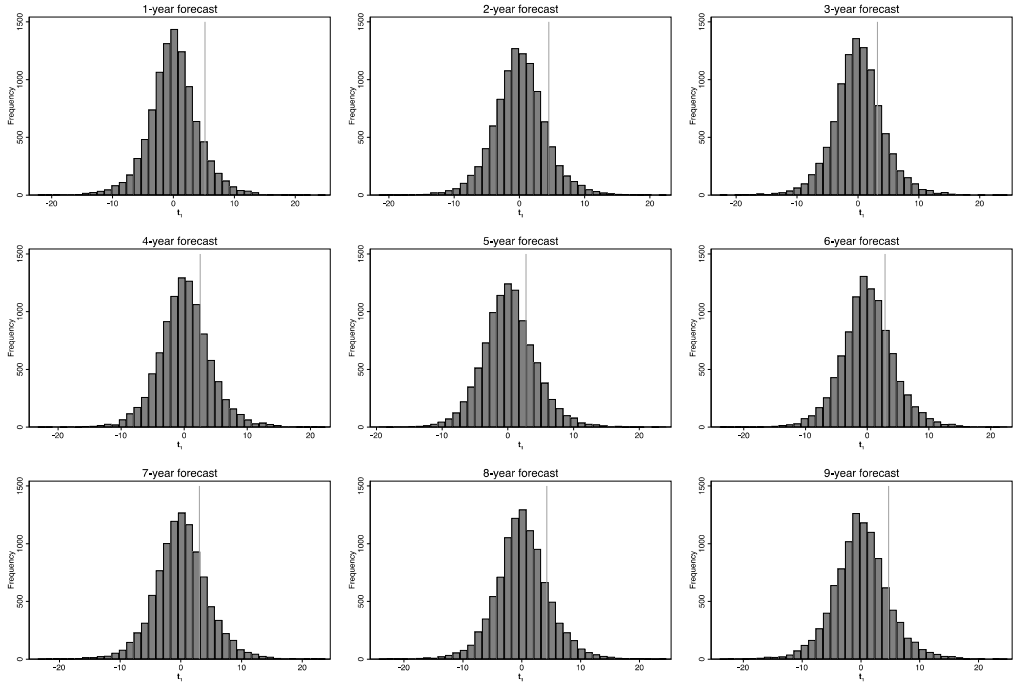
Notes: Share of reforms in the simulations (same as in our sample) = 26%. The simulations are based on 10.000 repetitions. The thin grey vertical line represents the t-value from our estimations, see Table A8.

Figure A8. Placebo labour market reforms, GINI market



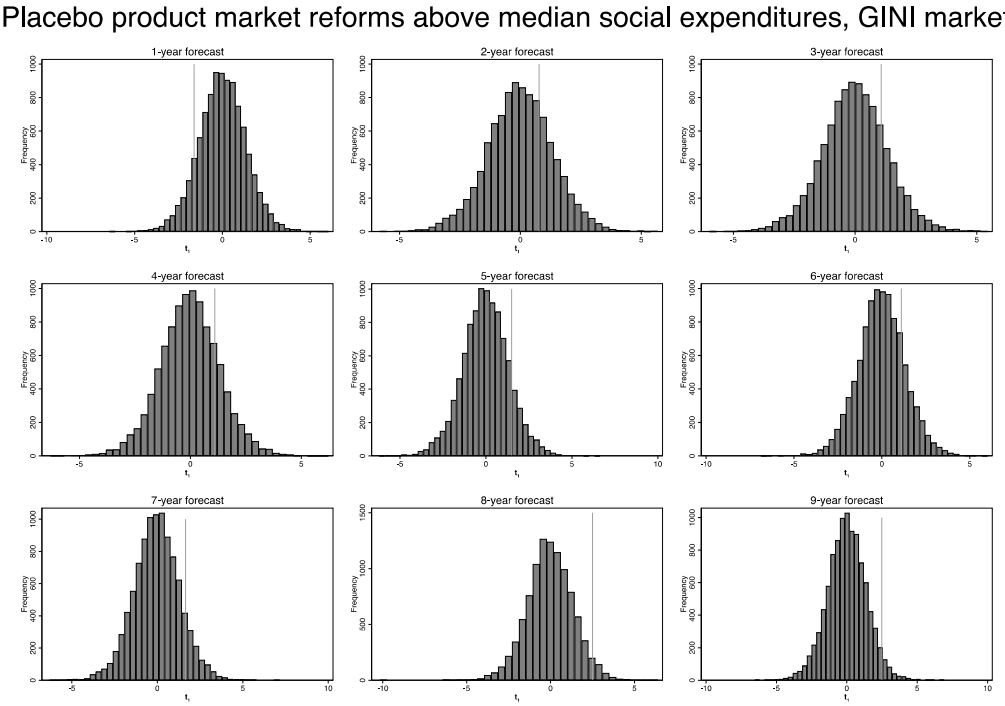
Notes: Share of reforms in the simulations (same as in our sample) = 10%. The simulations are based on 10.000 repetitions. The thin grey vertical line represents the t-value from our estimations, see Table A8.

Figure A9. Placebo labour market reforms, GINI disposable



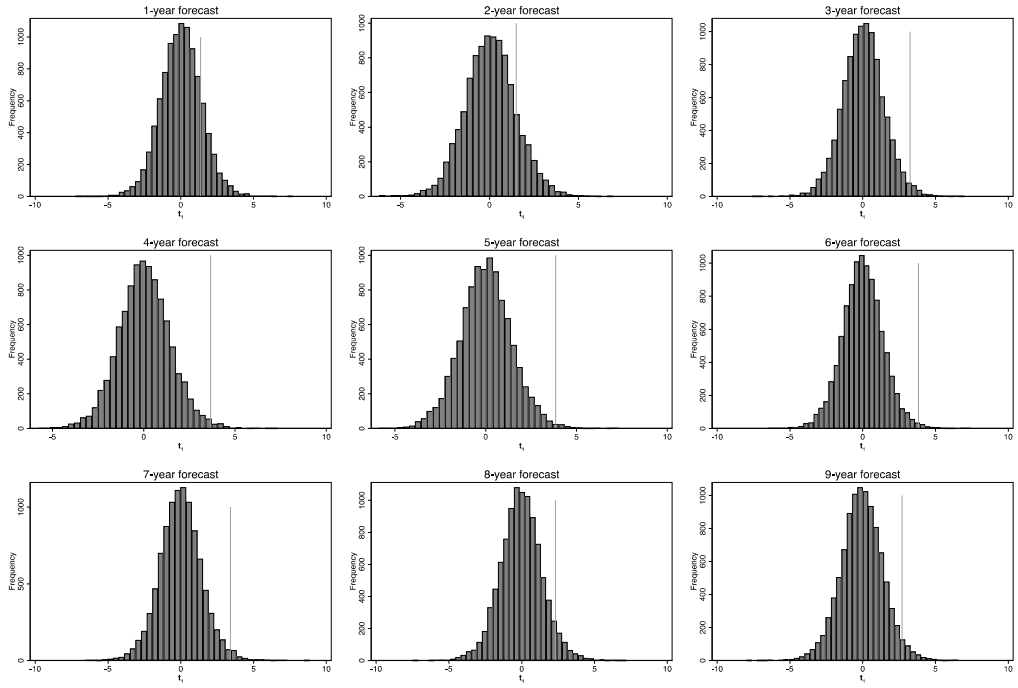
Notes: Share of reforms in the simulations (same as in our sample) = 10%. The simulations are based on 10.000 repetitions. The thin grey vertical line represents the t-value from our estimations, see Table A8.

Figure A10. Placebo product market reforms above median social expenditures, GINI market



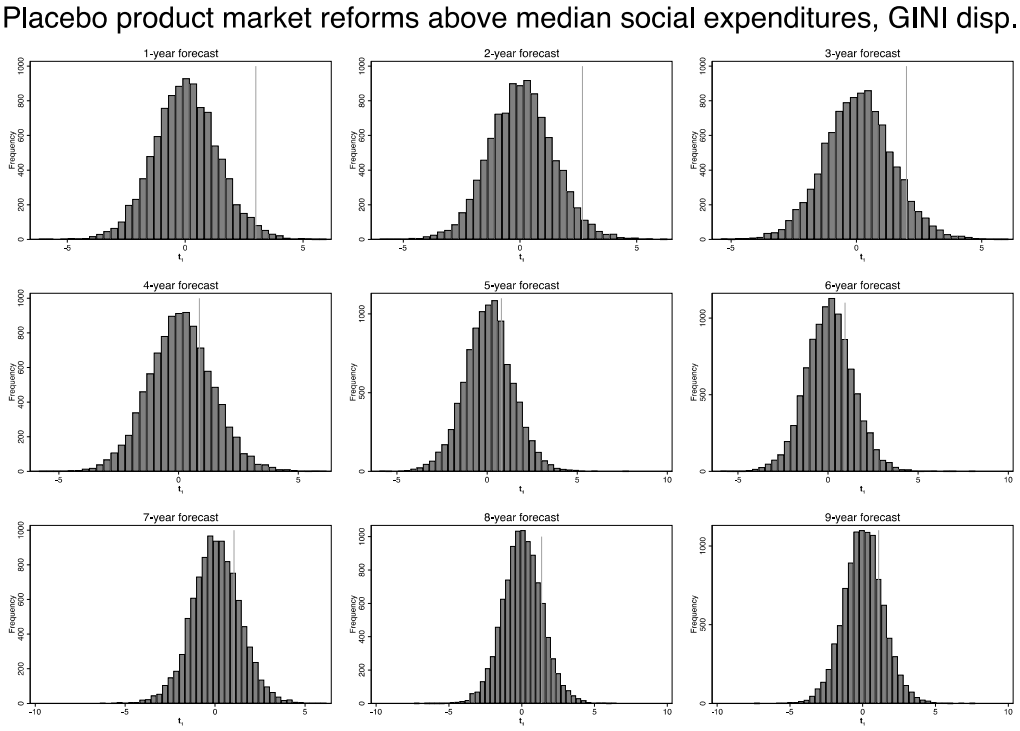
Notes: Share of reforms in the simulations (same as in our sample) = 25%. The simulations are based on 10.000 repetitions. The thin grey vertical line represents the t-value from our estimations, see Table A9.

Figure A11. Placebo product market reforms below median social expenditures, GINI market



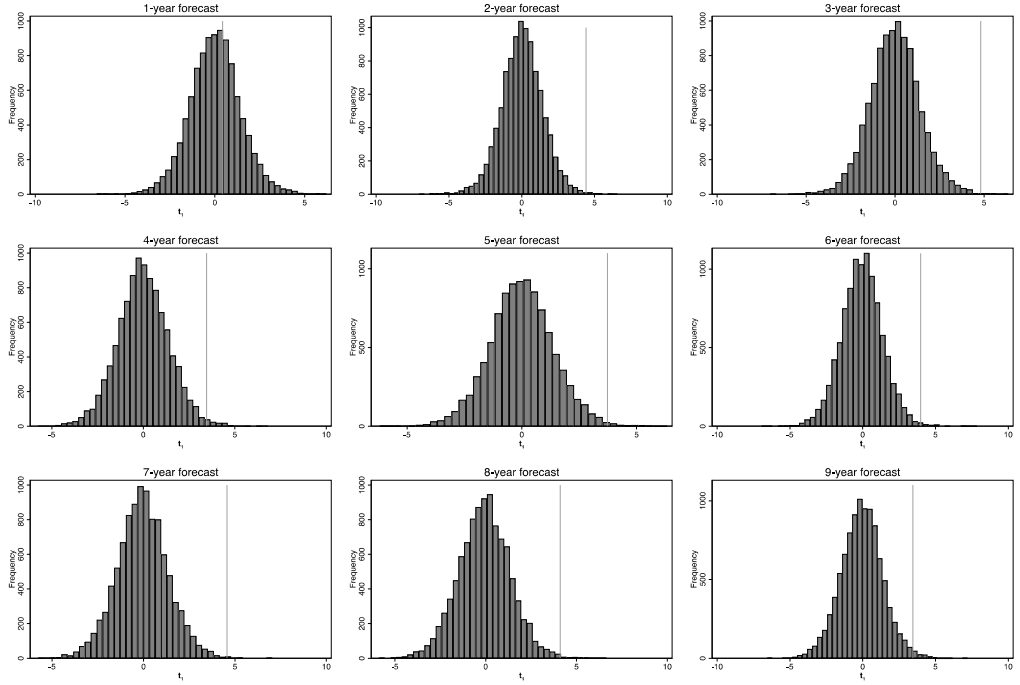
Notes: Share of reforms in the simulations (same as in our sample) = 24%. The simulations are based on 10.000 repetitions. The thin grey vertical line represents the t-value from our estimations, see Table A9.

Figure A12. Placebo product market reforms above median social expenditures, GINI disposable



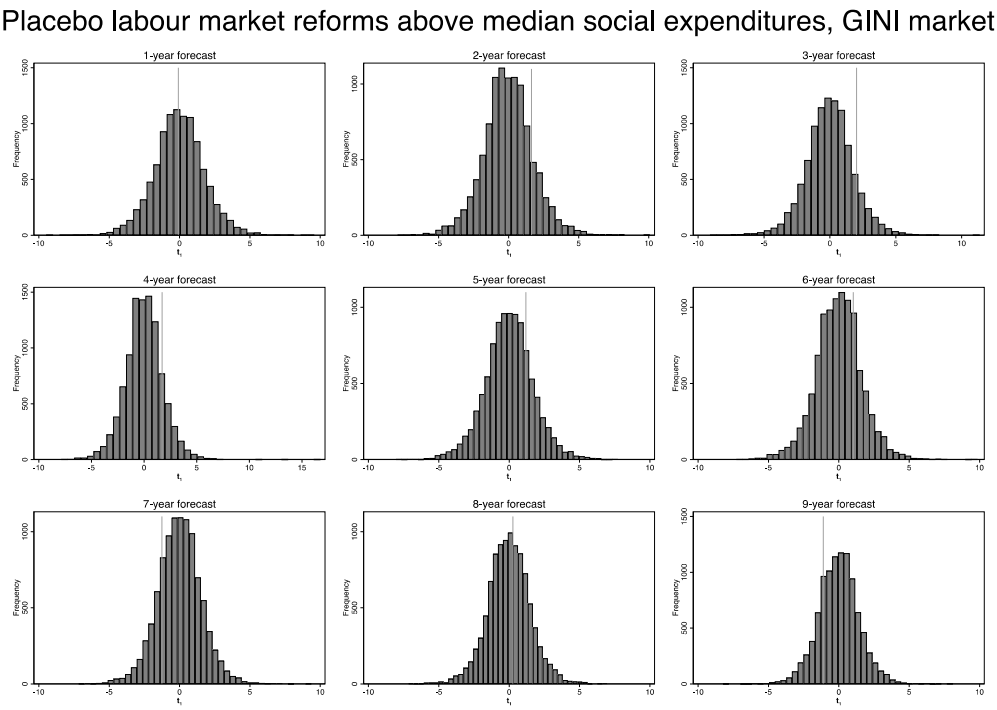
Notes: Share of reforms in the simulations (same as in our sample) = 25%. The simulations are based on 10.000 repetitions. The thin grey vertical line represents the t-value from our estimations, see Table A9.

Figure A13. Placebo product market reforms below median social expenditures, GINI disposable



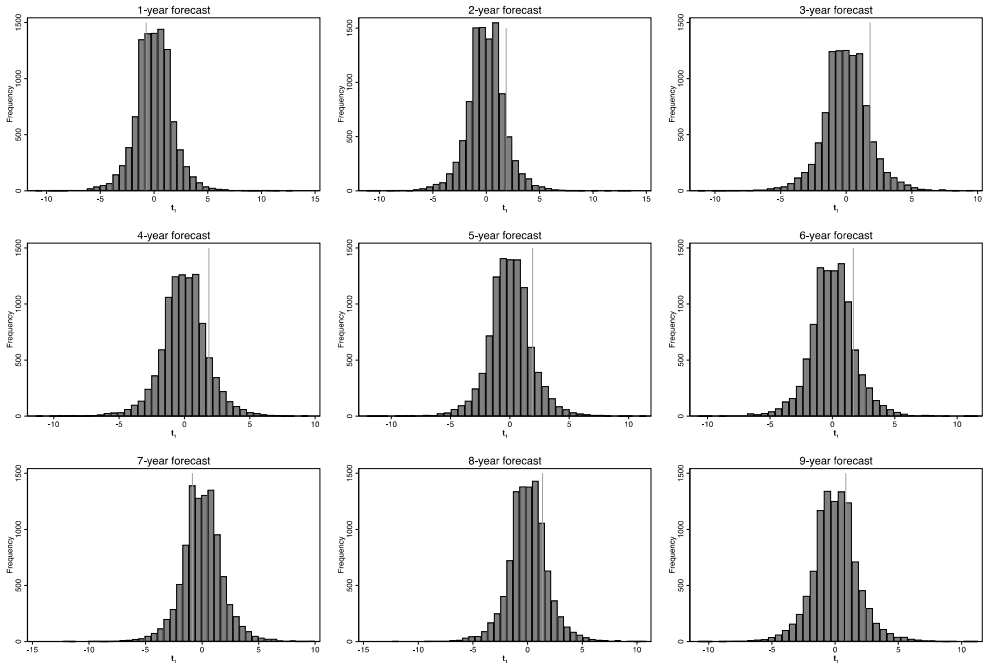
Notes: Share of reforms in the simulations (same as in our sample) = 24%. The simulations are based on 10.000 repetitions. The thin grey vertical line represents the t-value from our estimations, see Table A9.

Figure A14. Placebo labour market reforms above median social expenditures, GINI market



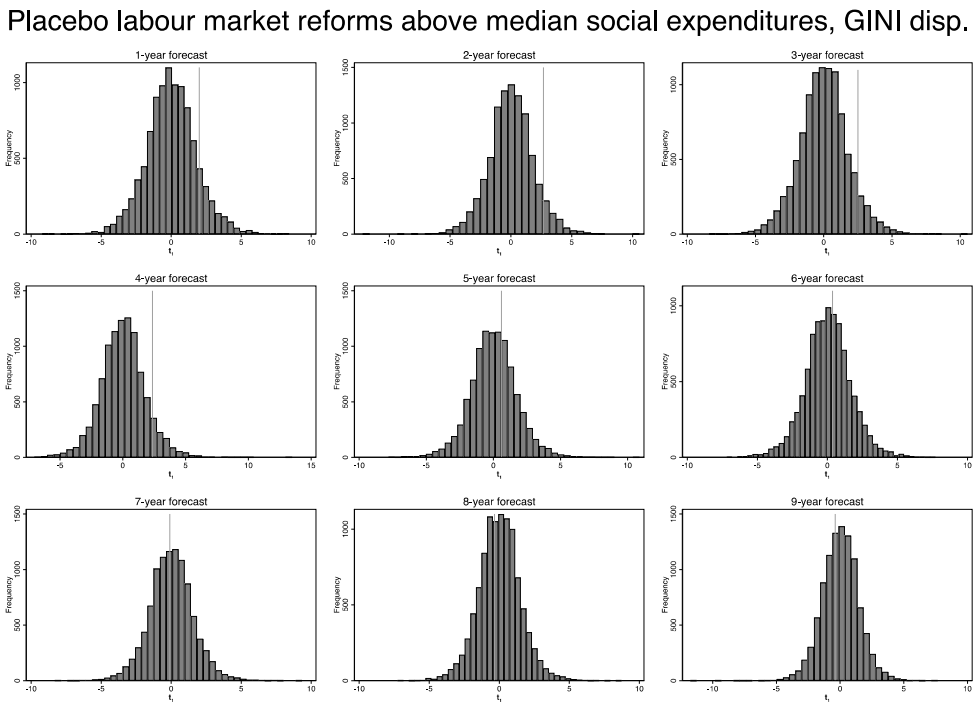
Notes: Share of reforms in the simulations (same as in our sample) = 12%. The simulations are based on 10.000 repetitions. The thin grey vertical line represents the t-value from our estimations, see Table A9.

Figure A15. Placebo labour market reforms below median social expenditures, GINI market



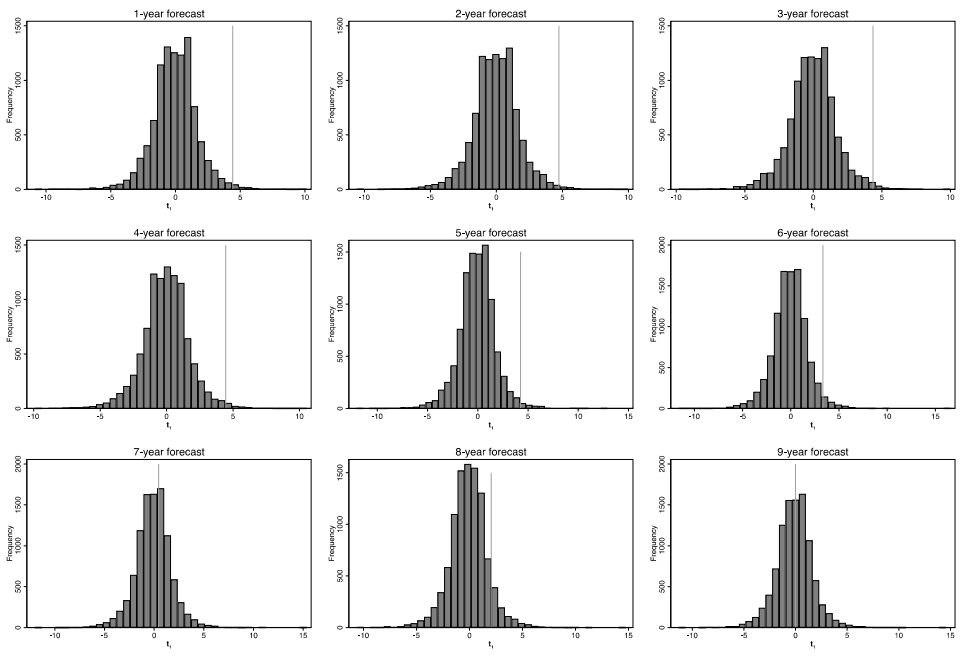
Notes: Share of reforms in the simulations (same as in our sample) = 6%. The simulations are based on 10.000 repetitions. The thin grey vertical line represents the t-value from our estimations, see Table A9.

Figure A16. Placebo labour market reforms above median social expenditures, GINI market



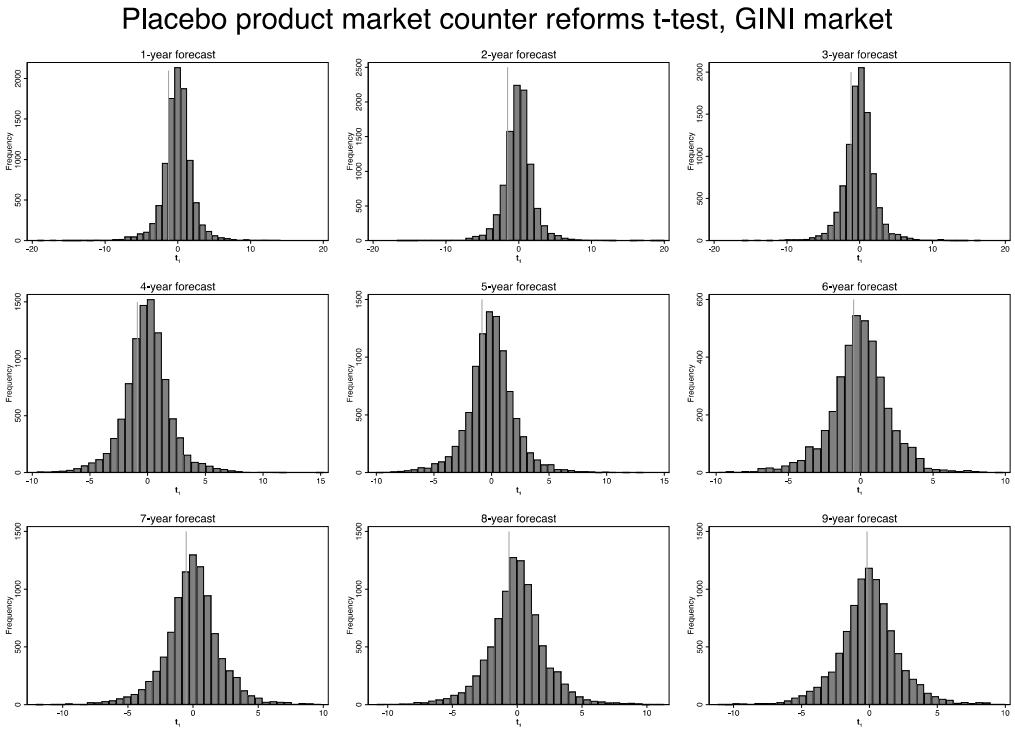
Notes: Share of reforms in the simulations (same as in our sample) = 12%. The simulations are based on 10.000 repetitions. The thin grey vertical line represents the t-value from our estimations, see Table A9.

Figure A17. Placebo product market reforms above median social expenditures, GINI disposable



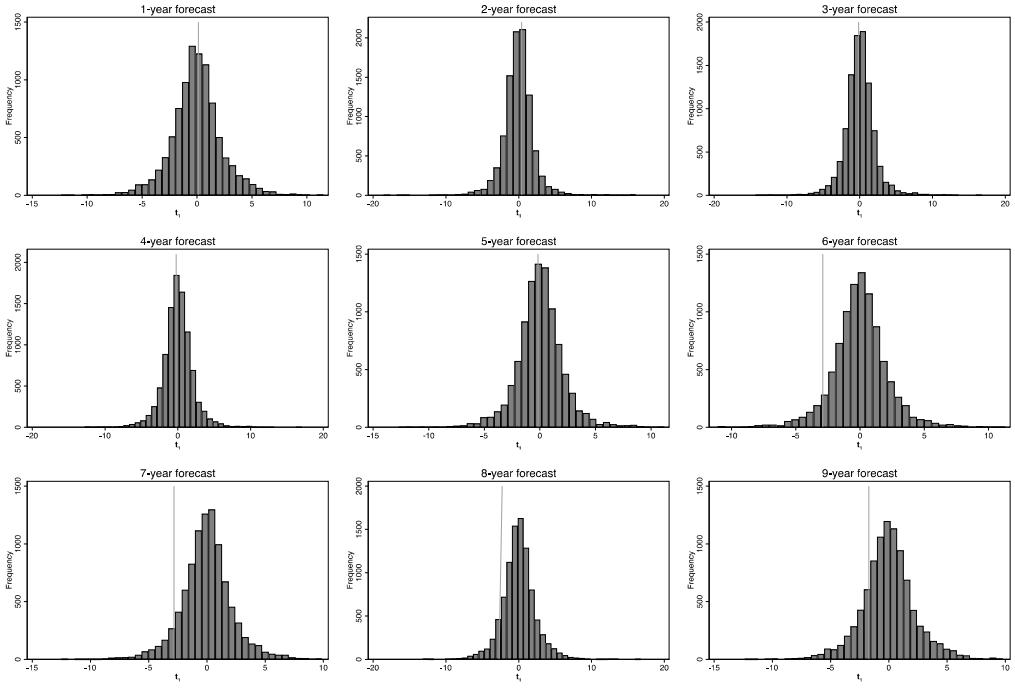
Notes: Share of reforms in the simulations (same as in our sample) = 6%. The simulations are based on 10.000 repetitions. The thin grey vertical line represents the t-value from our estimations, see Table A9.

Figure A18. Placebo product market counter reforms, GINI market



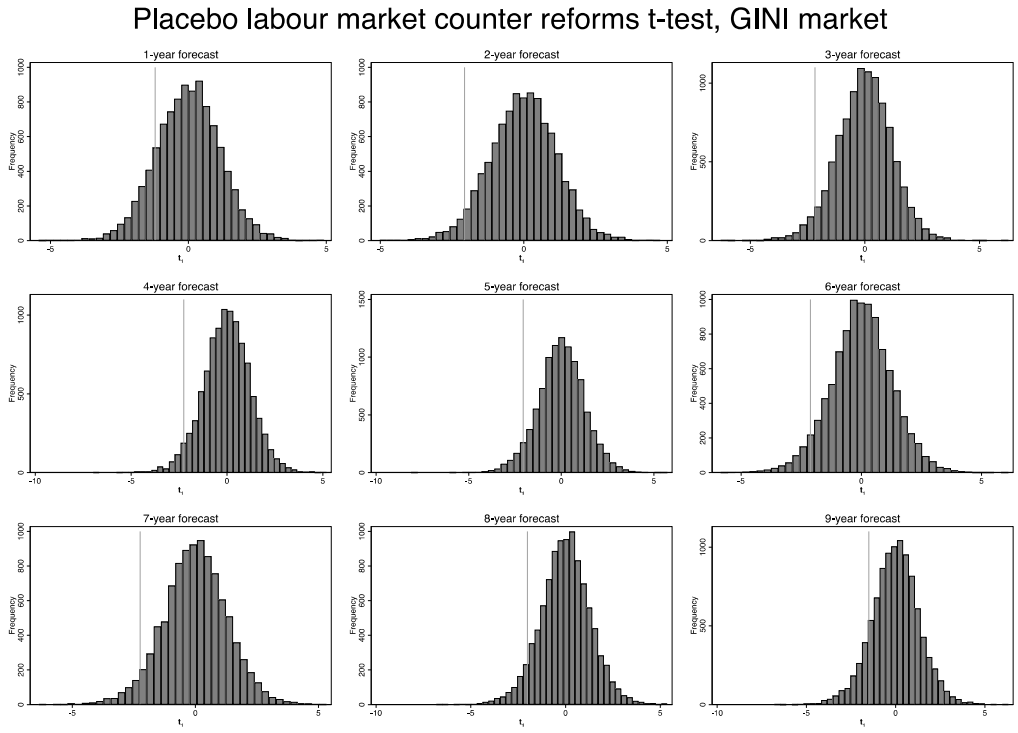
Notes: Share of reforms in the simulations (same as in our sample) = 0.4%. The simulations are based on 10.000 repetitions. The thin grey vertical line represents the t-value from our estimations, see Table A12.

Figure A19. Placebo product market counter reforms, GINI disposable



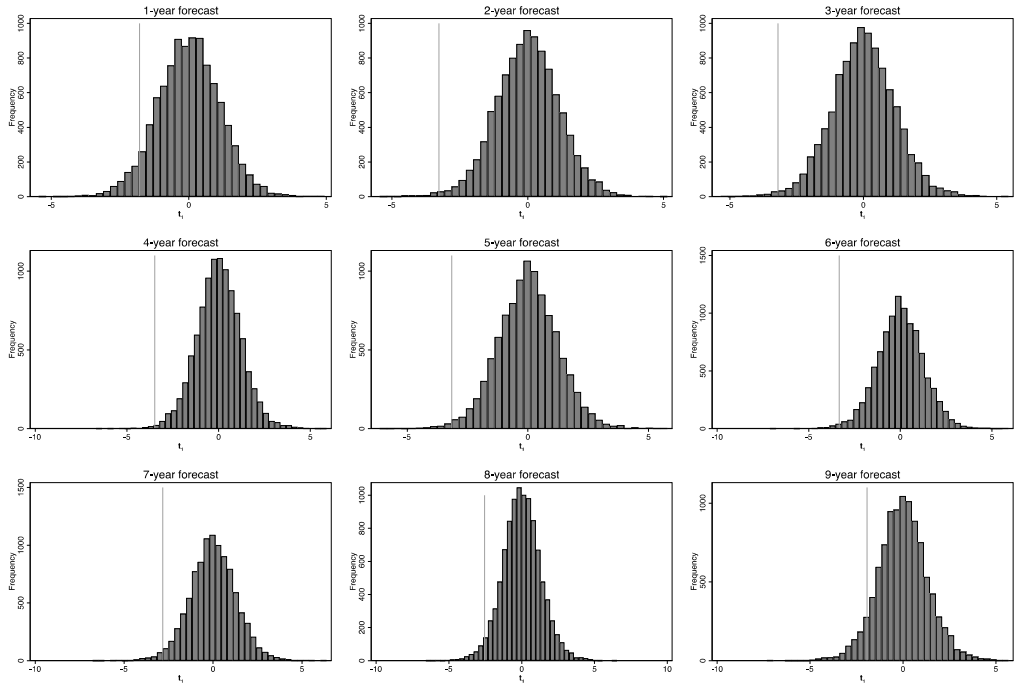
Notes: Share of reforms in the simulations (same as in our sample) = 0.4%. The simulations are based on 10.000 repetitions. The thin grey vertical line represents the t-value from our estimations, see Table A14.

Figure A20. Placebo labour market counter reforms, GINI market



Notes: Share of reforms in the simulations (same as in our sample) = 3%. The simulations are based on 10.000 repetitions. The thin grey vertical line represents the t-value from our estimations, see Table A13.

Figure A21. Placebo labour product market reforms, GINI disposable



Notes: Share of reforms in the simulations (same as in our sample) = 3%. The simulations are based on 10.000 repetitions. The thin grey vertical line represents the t-value from our estimations, see Table A15.

Tables

Table A1. Product market reforms and the change in GINI market, local projections

VARIABLES	(1) ΔGINI h=1	(2) ΔGINI h=2	(3) ΔGINI h=3	(4) ΔGINI h=4	(5) ΔGINI h=5	(6) ΔGINI h=6	(7) ΔGINI h=7	(8) ΔGINI h=8	(9) ΔGINI h=9
Product market reform	0.022	0.062	0.120**	0.162**	0.236**	0.287***	0.376***	0.411***	0.464***
	(0.020)	(0.044)	(0.054)	(0.069)	(0.087)	(0.094)	(0.100)	(0.098)	(0.086)
L1. Product market reform	0.025	0.077**	0.110**	0.183**	0.225***	0.306***	0.336***	0.379***	0.439***
	(0.027)	(0.033)	(0.049)	(0.070)	(0.082)	(0.089)	(0.093)	(0.087)	(0.106)
L2. Product market reform	0.034*	0.051*	0.109**	0.138**	0.203**	0.230**	0.276**	0.316**	0.362**
	(0.019)	(0.027)	(0.044)	(0.066)	(0.086)	(0.104)	(0.109)	(0.137)	(0.152)
L3. Product market reform	-0.004	0.033	0.045	0.096	0.112	0.153	0.183	0.219	0.244*
	(0.021)	(0.047)	(0.070)	(0.089)	(0.105)	(0.100)	(0.124)	(0.135)	(0.137)
L4. Product market reform	0.036*	0.041	0.088	0.101	0.141*	0.168	0.197	0.227*	0.324**
	(0.021)	(0.040)	(0.059)	(0.077)	(0.081)	(0.101)	(0.120)	(0.118)	(0.120)
F1. Product market reform	0.058**	0.114***	0.185***	0.272***	0.327***	0.402***	0.466***	0.565***	0.587***
	(0.023)	(0.039)	(0.058)	(0.070)	(0.080)	(0.095)	(0.095)	(0.103)	(0.095)
F2. Product market reform		0.063*	0.115**	0.184**	0.263***	0.302***	0.382***	0.442***	0.518***
		(0.037)	(0.052)	(0.070)	(0.080)	(0.094)	(0.111)	(0.115)	(0.115)
F3. Product market reform			0.107**	0.169***	0.242***	0.319***	0.360***	0.443***	0.489***
			(0.049)	(0.060)	(0.078)	(0.091)	(0.100)	(0.116)	(0.117)
F4. Product market reform				0.082	0.138*	0.199**	0.275***	0.316***	0.378***
				(0.067)	(0.074)	(0.085)	(0.093)	(0.101)	(0.115)
F5. Product market reform					0.074	0.138*	0.205**	0.290***	0.324***
					(0.071)	(0.081)	(0.093)	(0.098)	(0.109)
F6. Product market reform						0.123	0.184*	0.259**	0.338***
						(0.097)	(0.107)	(0.103)	(0.105)
F7. Product market reform							0.250**	0.324**	0.384***
							(0.118)	(0.125)	(0.120)
F8. Product market reform								0.298	0.369*
								(0.192)	(0.195)
F9. Product market reform									0.240
									(0.194)
L1. ΔGINI	0.493***	0.856***	1.128***	1.215***	1.236***	1.298***	1.239***	1.208***	1.255***
	(0.047)	(0.082)	(0.097)	(0.118)	(0.131)	(0.158)	(0.195)	(0.242)	(0.269)
L2. ΔGINI	0.110***	0.192***	0.140*	0.112	0.195	0.164	0.215	0.221	0.175
	(0.036)	(0.069)	(0.076)	(0.104)	(0.127)	(0.145)	(0.151)	(0.182)	(0.185)
L3. ΔGINI	0.027	-0.030	-0.076	0.007	-0.010	0.016	0.015	0.030	0.073
	(0.058)	(0.059)	(0.078)	(0.108)	(0.142)	(0.155)	(0.156)	(0.173)	(0.189)
L4. ΔGINI	-0.066	-0.117	-0.043	-0.061	-0.024	0.011	0.075	0.076	-0.151
	(0.068)	(0.098)	(0.136)	(0.164)	(0.173)	(0.175)	(0.179)	(0.177)	(0.212)
L5. ΔGINI	-0.028	0.052	0.044	0.080	0.074	0.112	0.113	-0.095	-0.130
	(0.046)	(0.079)	(0.097)	(0.111)	(0.135)	(0.146)	(0.163)	(0.162)	(0.171)
L6. ΔGINI	0.094	0.104	0.150	0.127	0.155	0.149	-0.076	-0.096	-0.086
	(0.061)	(0.104)	(0.128)	(0.140)	(0.158)	(0.169)	(0.191)	(0.191)	(0.238)
L7. ΔGINI	-0.051	-0.083	-0.145*	-0.197**	-0.354***	-0.610***	-0.628***	-0.612***	-0.631***
	(0.037)	(0.060)	(0.081)	(0.091)	(0.103)	(0.137)	(0.125)	(0.136)	(0.163)
GDP growth	0.075	-0.934	-1.886	-2.864*	-2.899	-1.786	-0.138	4.652	5.602
	(0.461)	(0.941)	(1.311)	(1.682)	(2.364)	(2.491)	(2.817)	(3.930)	(4.084)
L1. GDP growth	-0.360	-0.286	-0.095	1.065	1.626	2.476	5.528**	7.508**	7.439**
	(0.431)	(0.658)	(0.884)	(1.282)	(1.527)	(2.076)	(2.416)	(2.870)	(3.122)
Employment rate	-2.047	-0.577	3.906	10.899*	18.389**	21.655**	19.909**	11.807	14.788
	(1.592)	(3.881)	(5.217)	(6.460)	(8.195)	(9.758)	(9.430)	(9.485)	(9.537)
L1. Employment rate	3.147**	3.458	0.933	-3.991	-9.889	-11.811	-8.702	0.476	-2.166
	(1.508)	(3.534)	(4.719)	(5.973)	(7.680)	(9.148)	(8.579)	(8.679)	(9.777)
Inflation rate	0.002	-0.006	-0.012	-0.014	-0.011	-0.004	0.008	0.035	0.054
	(0.005)	(0.009)	(0.013)	(0.017)	(0.020)	(0.023)	(0.023)	(0.028)	(0.035)
L1. Inflation rate	-0.002	0.008	0.023	0.038**	0.050**	0.061**	0.075***	0.075**	0.062*
	(0.006)	(0.011)	(0.017)	(0.018)	(0.019)	(0.023)	(0.027)	(0.030)	(0.036)
Labour market reform	0.007	-0.045	-0.135	-0.207	-0.295*	-0.311*	-0.415**	-0.393*	-0.290
	(0.040)	(0.083)	(0.122)	(0.151)	(0.155)	(0.171)	(0.189)	(0.221)	(0.256)
Constant	-0.507***	-1.192***	-2.762***	-3.696***	-3.522***	-5.051***	-6.241***	-6.528***	-6.640***
	(0.145)	(0.303)	(0.515)	(0.713)	(0.954)	(0.958)	(0.957)	(0.990)	(0.943)
Country and time fixed-effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	906	881	856	831	806	781	756	731	706
R-squared	0.466	0.452	0.419	0.381	0.363	0.362	0.363	0.369	0.377
Number of Countries	25	25	25	25	25	25	25	25	25
Pesaran CD-test statistic	-2.655	-2.730	-2.820	-2.874	-2.825	-2.793	-2.878	-2.936	-2.854

Notes: The models are based on equation (1). The Pesaran (2015) test for cross-sectional dependence is conducted on the disturbances from a model with SEs clustered at the country level. The tests indicate spatial dependence in the errors. Spatial correlation consistent standard errors are therefore shown in parentheses: *** p<0.01, ** p<0.05, * p<0.1.

Table A2. Product market reforms and the change in GINI disposable, local projections

VARIABLES	(1) ΔGINI h=1	(2) ΔGINI h=2	(3) ΔGINI h=3	(4) ΔGINI h=4	(5) ΔGINI h=5	(6) ΔGINI h=6	(7) ΔGINI h=7	(8) ΔGINI h=8	(9) ΔGINI h=9
Product market reform	0.058**	0.126**	0.165**	0.228***	0.274***	0.302***	0.348***	0.390***	0.448***
	(0.024)	(0.047)	(0.072)	(0.078)	(0.090)	(0.091)	(0.089)	(0.088)	(0.078)
L1. ΔGINI	0.448***	0.672***	0.787***	0.728***	0.695***	0.654***	0.542***	0.468***	0.478***
	(0.032)	(0.064)	(0.086)	(0.098)	(0.094)	(0.091)	(0.098)	(0.117)	(0.171)
L2. ΔGINI	0.012	0.048	-0.051	-0.053	-0.071	-0.153**	-0.131	-0.079	-0.057
	(0.041)	(0.065)	(0.081)	(0.085)	(0.077)	(0.073)	(0.086)	(0.132)	(0.116)
L3. ΔGINI	0.050	-0.022	-0.013	-0.012	-0.079	-0.076	-0.030	-0.020	-0.065
	(0.045)	(0.052)	(0.070)	(0.073)	(0.076)	(0.087)	(0.111)	(0.092)	(0.108)
L4. ΔGINI	-0.104**	-0.107	-0.087	-0.133	-0.099	-0.020	0.010	-0.013	-0.095
	(0.050)	(0.074)	(0.078)	(0.086)	(0.091)	(0.096)	(0.082)	(0.090)	(0.091)
L5. ΔGINI	0.046	0.099	0.068	0.093	0.148	0.166	0.148	0.053	0.050
	(0.047)	(0.075)	(0.094)	(0.112)	(0.135)	(0.111)	(0.123)	(0.125)	(0.137)
L6. ΔGINI	0.022	-0.021	-0.002	0.036	0.062	0.036	-0.054	-0.048	-0.049
	(0.042)	(0.070)	(0.091)	(0.134)	(0.116)	(0.122)	(0.116)	(0.115)	(0.104)
L7. ΔGINI	-0.031	-0.021	0.002	-0.009	-0.088	-0.189**	-0.213**	-0.242**	-0.303**
	(0.031)	(0.050)	(0.078)	(0.072)	(0.077)	(0.086)	(0.099)	(0.101)	(0.126)
GDP growth	-0.703	-1.193*	-1.649*	-2.129*	-2.496	-2.413	-2.556	-1.646	-2.542
	(0.424)	(0.699)	(0.886)	(1.128)	(1.515)	(1.799)	(1.960)	(2.680)	(2.988)
L1. GDP growth	0.327	0.058	-0.238	0.261	-0.406	-0.783	-0.800	-1.028	-1.291
	(0.401)	(0.655)	(0.854)	(1.222)	(1.211)	(1.411)	(1.831)	(2.088)	(2.302)
Employment rate	0.369	2.216	3.882	3.922	5.753	5.336	5.456	1.698	2.991
	(1.515)	(3.166)	(4.100)	(4.989)	(5.968)	(7.285)	(8.141)	(9.237)	(9.767)
L1. Employment rate	-0.347	-2.058	-3.782	-3.974	-6.196	-6.334	-6.963	-3.813	-5.958
	(1.411)	(2.957)	(4.033)	(4.777)	(5.698)	(6.898)	(8.138)	(9.838)	(10.005)
Inflation rate	-0.010*	-0.014*	-0.011	-0.014	-0.004	0.005	0.012	0.029	0.046**
	(0.006)	(0.007)	(0.010)	(0.012)	(0.013)	(0.016)	(0.017)	(0.020)	(0.020)
L1. Inflation rate	0.012**	0.021***	0.024**	0.037***	0.041***	0.047***	0.059***	0.062***	0.054**
	(0.006)	(0.007)	(0.011)	(0.011)	(0.013)	(0.016)	(0.018)	(0.019)	(0.022)
Labour market reform	0.016	0.013	-0.015	-0.075	-0.115	-0.167	-0.218	-0.192	-0.197
	(0.043)	(0.081)	(0.103)	(0.118)	(0.131)	(0.137)	(0.141)	(0.156)	(0.174)
Constant	0.055	-0.096	-0.132	0.128	0.208	0.249	0.153	0.058	0.214
	(0.145)	(0.356)	(0.582)	(0.711)	(0.871)	(0.878)	(1.071)	(1.148)	(1.104)
Country and time fixed-effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Treatment leads=h	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Treatment lags	4	4	4	4	4	4	4	4	4
Observations	906	881	856	831	806	781	756	731	706
R-squared	0.303	0.267	0.234	0.208	0.210	0.218	0.234	0.260	0.293
Number of Countries	25	25	25	25	25	25	25	25	25
Pesaran CD-test statistic	-3.509	-3.442	-3.333	-3.242	-3.213	-3.177	-3.181	-3.176	-3.134

Notes: The models are based on equation (1). The Pesaran (2015) test for cross-sectional dependence is conducted on the disturbances from a model with SEs clustered at the country level. The tests indicate spatial dependence in the errors. Spatial correlation consistent standard errors are therefore shown in parentheses: *** p<0.01, ** p<0.05, * p<0.1.

Table A3. Labour market reforms and the change in GINI market, local projections

VARIABLES	(1) ΔGINI h=1	(2) ΔGINI h=2	(3) ΔGINI h=3	(4) ΔGINI h=4	(5) ΔGINI h=5	(6) ΔGINI h=6	(7) ΔGINI h=7	(8) ΔGINI h=8	(9) ΔGINI h=9
Labour market reform	0.005	-0.044	-0.131	-0.183	-0.252	-0.230	-0.299	-0.292	-0.158
	(0.043)	(0.088)	(0.127)	(0.152)	(0.157)	(0.158)	(0.182)	(0.202)	(0.240)
L1. ΔGINI	0.491***	0.852***	1.114***	1.204***	1.238***	1.363***	1.359***	1.366***	1.465***
	(0.052)	(0.093)	(0.115)	(0.143)	(0.163)	(0.193)	(0.238)	(0.276)	(0.312)
L2. ΔGINI	0.118***	0.200***	0.159**	0.136	0.251**	0.239*	0.300**	0.342*	0.299*
	(0.035)	(0.067)	(0.069)	(0.100)	(0.123)	(0.133)	(0.131)	(0.176)	(0.172)
L3. ΔGINI	0.032	-0.017	-0.047	0.070	0.066	0.089	0.104	0.111	0.207
	(0.060)	(0.058)	(0.082)	(0.119)	(0.146)	(0.159)	(0.164)	(0.176)	(0.215)
L4. ΔGINI	-0.060	-0.095	0.003	-0.011	0.040	0.093	0.134	0.163	-0.082
	(0.065)	(0.092)	(0.136)	(0.155)	(0.164)	(0.184)	(0.189)	(0.204)	(0.237)
L5. ΔGINI	-0.013	0.083	0.093	0.148	0.152	0.187	0.200	-0.027	-0.097
	(0.048)	(0.082)	(0.100)	(0.115)	(0.141)	(0.150)	(0.178)	(0.180)	(0.183)
L6. ΔGINI	0.099	0.116	0.164	0.146	0.163	0.172	-0.067	-0.118	-0.045
	(0.061)	(0.107)	(0.126)	(0.144)	(0.157)	(0.179)	(0.196)	(0.190)	(0.219)
L7. ΔGINI	-0.041	-0.061	-0.105	-0.152	-0.307**	-0.574***	-0.592***	-0.515***	-0.519**
	(0.039)	(0.062)	(0.082)	(0.102)	(0.115)	(0.157)	(0.153)	(0.158)	(0.224)
GDP growth	0.007	-1.184	-2.638*	-4.189**	-5.099**	-3.554	-2.043	2.075	2.357
	(0.441)	(0.952)	(1.336)	(1.832)	(2.396)	(2.557)	(2.676)	(3.906)	(4.287)
L1. GDP growth	-0.527	-0.755	-0.790	0.015	0.948	2.131	4.509*	6.044*	5.303*
	(0.442)	(0.618)	(0.828)	(1.170)	(1.473)	(1.858)	(2.510)	(3.022)	(2.873)
Employment rate	-2.021	-0.147	5.324	13.504*	21.697**	22.657**	20.738	12.943	17.806
	(1.473)	(3.792)	(5.636)	(7.208)	(8.872)	(10.959)	(12.307)	(12.808)	(14.562)
L1. Employment rate	3.075**	2.913	-0.667	-6.934	-13.673	-13.173	-9.597	-0.130	-4.055
	(1.334)	(3.358)	(5.073)	(6.680)	(8.302)	(10.245)	(11.764)	(12.487)	(15.008)
Inflation rate	-0.001	-0.012	-0.024*	-0.030	-0.031	-0.031	-0.021	-0.016	-0.008
	(0.005)	(0.009)	(0.013)	(0.018)	(0.022)	(0.025)	(0.024)	(0.025)	(0.026)
L1. Inflation rate	-0.004	0.004	0.015	0.025	0.032	0.040	0.041	0.043	0.028
	(0.006)	(0.011)	(0.016)	(0.017)	(0.020)	(0.024)	(0.028)	(0.030)	(0.037)
Product market reform	0.028	0.074	0.137**	0.189**	0.265**	0.319**	0.410***	0.471***	0.518***
	(0.020)	(0.045)	(0.058)	(0.077)	(0.099)	(0.118)	(0.132)	(0.149)	(0.144)
Constant	-0.469***	-1.076***	-2.615***	-3.365***	-2.646**	-4.847***	-5.859***	-6.465***	-6.958***
	(0.156)	(0.344)	(0.565)	(0.796)	(1.088)	(1.359)	(1.504)	(1.796)	(1.976)
Country and time fixed-effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Treatment leads=h	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Treatment lags	4	4	4	4	4	4	4	4	4
Observations	906	881	856	831	806	781	756	731	706
R-squared	0.465	0.453	0.420	0.382	0.360	0.349	0.333	0.321	0.311
Number of Countries	25	25	25	25	25	25	25	25	25
Pesaran CD-test statistic	-2.621	-2.832	-2.989	-3.171	-3.186	-3.174	-3.216	-3.190	-3.226

Notes: The models are based on equation (1). The Pesaran (2015) test for cross-sectional dependence is conducted on the disturbances from a model with SEs clustered at the country level. The tests indicate spatial dependence in the errors. Spatial correlation consistent standard errors are therefore shown in parentheses: *** p<0.01, ** p<0.05, * p<0.1.

Table A4. Labour market reforms and the change in GINI disposable, local projection estimates

VARIABLES	(1) ΔGINI h=1	(2) ΔGINI h=2	(3) ΔGINI h=3	(4) ΔGINI h=4	(5) ΔGINI h=5	(6) ΔGINI h=6	(7) ΔGINI h=7	(8) ΔGINI h=8	(9) ΔGINI h=9
Labour market reform	0.020	0.025	0.004	-0.035	-0.056	-0.085	-0.124	-0.095	-0.074
	(0.044)	(0.085)	(0.109)	(0.121)	(0.134)	(0.138)	(0.152)	(0.159)	(0.188)
L1. ΔGINI	0.453***	0.678***	0.803***	0.757***	0.739***	0.744***	0.676***	0.649***	0.685***
	(0.028)	(0.061)	(0.085)	(0.097)	(0.104)	(0.113)	(0.134)	(0.157)	(0.202)
L2. ΔGINI	0.025	0.078	-0.004	0.008	0.027	-0.027	0.012	0.068	0.087
	(0.041)	(0.065)	(0.074)	(0.085)	(0.082)	(0.086)	(0.101)	(0.135)	(0.118)
L3. ΔGINI	0.050	-0.025	-0.010	0.014	-0.028	-0.019	0.015	0.017	-0.025
	(0.044)	(0.050)	(0.069)	(0.075)	(0.080)	(0.086)	(0.097)	(0.083)	(0.105)
L4. ΔGINI	-0.096*	-0.097	-0.061	-0.087	-0.048	0.011	0.032	0.010	-0.078
	(0.048)	(0.066)	(0.080)	(0.092)	(0.100)	(0.115)	(0.105)	(0.126)	(0.126)
L5. ΔGINI	0.043	0.106	0.087	0.110	0.147	0.165	0.141	0.047	0.050
	(0.050)	(0.080)	(0.102)	(0.118)	(0.139)	(0.123)	(0.141)	(0.147)	(0.159)
L6. ΔGINI	0.028	-0.009	0.013	0.036	0.056	0.028	-0.066	-0.063	-0.061
	(0.041)	(0.069)	(0.093)	(0.131)	(0.112)	(0.120)	(0.116)	(0.113)	(0.102)
L7. ΔGINI	-0.026	-0.015	0.008	0.006	-0.064	-0.154*	-0.173*	-0.209*	-0.280*
	(0.034)	(0.054)	(0.079)	(0.076)	(0.081)	(0.085)	(0.098)	(0.117)	(0.151)
GDP growth	-0.727	-1.309*	-2.020**	-2.977***	-4.057***	-3.825**	-4.057**	-3.137	-3.997**
	(0.433)	(0.649)	(0.812)	(1.065)	(1.419)	(1.609)	(1.617)	(1.933)	(1.841)
L1. GDP growth	0.252	-0.192	-0.793	-0.562	-1.127	-1.402	-1.549	-1.843	-2.592
	(0.444)	(0.724)	(0.917)	(1.256)	(1.184)	(1.279)	(1.563)	(1.640)	(2.190)
Employment rate	0.414	3.078	5.531	6.835	9.629	8.371	8.312	3.607	5.588
	(1.556)	(3.150)	(3.409)	(4.636)	(6.863)	(8.953)	(10.652)	(11.989)	(12.315)
L1. Employment rate	-0.370	-2.960	-5.485*	-6.978	-10.112	-9.149	-9.236	-4.584	-6.838
	(1.454)	(2.938)	(3.151)	(4.145)	(6.394)	(8.440)	(10.427)	(12.398)	(12.664)
Inflation rate	-0.011*	-0.017**	-0.020*	-0.027**	-0.023	-0.019	-0.015	-0.007	0.005
	(0.006)	(0.008)	(0.011)	(0.013)	(0.014)	(0.016)	(0.016)	(0.017)	(0.017)
L1. Inflation rate	0.010*	0.016***	0.016	0.025**	0.025*	0.028	0.033	0.033	0.021
	(0.005)	(0.006)	(0.010)	(0.011)	(0.013)	(0.017)	(0.020)	(0.020)	(0.023)
Product market reform	0.064**	0.137**	0.182**	0.253**	0.306***	0.339***	0.390***	0.452***	0.522***
	(0.025)	(0.052)	(0.083)	(0.096)	(0.109)	(0.115)	(0.115)	(0.117)	(0.116)
Constant	-0.069	-0.069	-0.061	0.092	0.809	0.061	0.486	0.544	0.684
	(0.177)	(0.373)	(0.582)	(0.727)	(0.767)	(0.805)	(0.743)	(0.755)	(0.856)
Country and time fixed-effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Treatment leads=h	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Treatment lags	4	4	4	4	4	4	4	4	4
Observations	906	881	856	831	806	781	756	731	706
R-squared	0.296	0.257	0.216	0.180	0.163	0.148	0.135	0.131	0.136
Number of Countries	25	25	25	25	25	25	25	25	25
Pesaran CD-test statistic	-3.540	-3.468	-3.268	-3.136	-3.091	-3.081	-3.016	-2.969	-2.954

Notes: The table shows the local projection estimates of labour market reforms on GINI disposable. The models are based on equation (1). The Pesaran (2015) test for cross-sectional dependence is conducted on the disturbances from a model with SEs clustered at the country level. The tests indicate spatial dependence in the errors. Spatial correlation consistent standard errors are therefore shown in parentheses: *** p<0.01, ** p<0.05, * p<0.1.

Table A5. Balance of covariates in treatment and control group, pre and post weighting

	Difference in means (treated minus control) pre probability weighting	
	Reforms	**Counter reforms**
Product market reforms		
GDP growth	.004** (.002)	-.003 (.020)
Lag of GDP growth	.003* (.002)	-.019 (.024)
Inflation	-1.292*** (.247)	-2.389 (1.227)
Lag of inflation	-1.385*** (.256)	-2.152 (.719)
Employment rate	-.006 (.004)	-.024 (.042)
Lag of employment rate	-.006 (.004)	-.025 (.037)
Labour market reforms		
GDP growth	-.007** (.003)	-.016 (.049)
Lag of GDP growth	-.008***(.003)	-.021 (.038)
Inflation	-.525 (.399)	.576 (.850)
Lag of inflation	-.269 (.505)	1.254 (1.082)
Employment rate	-.019***(.007)	-.017 (.011)
Lag of employment rate	-.016** (.007)	-.015 (.010)
Observations	906	906

	Difference in means (treated minus control), post probability weighting
	Reforms
Product market reforms	
GDP growth	-.002 (.004)
Lag of GDP growth	.001 (.009)
Inflation	1.386 (1.021)
Lag of inflation	.017 (1.453)
Employment rate	.013 (.017)
Lag of employment rate	.013 (.018)
Observations	834
Labour market reforms	
GDP growth	-.003 (.003)
Lag of GDP growth	-.000 (.004)
Inflation	-.230 (.926)
Lag of inflation	-.095 (1.017)
Employment rate	.000 (.010)
Lag of employment rate	.001 (.009)
Observations	849

Notes: We use the same weights as described in section 3.3 for the post probability weighted balance tests. Robust standard errors of a two-sided t-test are reported in parentheses: *** p<0.01, ** p<0.05, * p<0.1

Table A6. Logit regression predicting treatment at t+1, marginal effects at means

Specification	(1)	(2)
regressors\dependent variable	Product market	Labour market
Product market reform		0.007
		(0.024)
Labour market reform	0.057	
	(0.043)	
Output gap	0.034	0.577***
	(0.272)	(0.216)
Output gap_{t-1}	-0.206	-0.459*
	(0.293)	(0.243)
GDP growth	-1.637	-4.386**
	(2.144)	(1.745)
GDP $growth_{t-1}$	0.186	0.082
	(1.008)	(0.842)
Employment rate	-2.310	-5.251***
	(2.726)	(1.961)
Employment $rate_{t-1}$	3.699	3.858*
	(2.769)	(1.991)
Inflation rate	-0.012	-0.002
	(0.009)	(0.006)
Inflation $rate_{t-1}$	-0.011	-0.002
	(0.009)	(0.006)
Government ideology	0.051***	-0.013
	(0.018)	(0.014)
Political fragmentation	0.038	-0.059
	(0.064)	(0.052)
Years in office	0.003	-0.014***
	(0.005)	(0.004)
Effective number of government parties	-0.057	0.066**
	(0.042)	(0.026)
Legislative or executive election	-0.019	0.009
	(0.028)	(0.021)
3^{rd} degree polynomial of the time since previous reform	Yes	Yes
Country fixed-effects	Yes	Yes
Time fixed-effects	Yes	Yes
Observations	834	849
Area under ROC curve	0.879	0.868

Notes: Because of the time-fixed effects several observations are dropped. For product market reforms more so, since there are more years in which no product market reform took place in any country. For labour market reforms Luxembourg is dropped since no labour market reform took place in Luxembourg. Standard errors in parentheses: *** p<0.01, ** p<0.05, * p<0.1

Table A7. Pairwise correlations after Bonferroni correction

Variables	Product market reform	Labour market reform	Product market counter reform	Labour market counter reform
Social expenditure above median	0.014	0.094*	0.000	-0.051*

*** p<0.01, ** p<0.05, * p<0.1

Table A8. AIPW ATE's of product and labour market reforms on GINI market and GINI disposable

	(1) ΔGINI h=1	(2) ΔGINI h=2	(3) ΔGINI h=3	(4) ΔGINI h=4	(5) ΔGINI h=5	(6) ΔGINI h=6	(7) ΔGINI h=7	(8) ΔGINI h=8	(9) ΔGINI h=9
Product market reform									
GINI market	-0.000	0.074**	0.163***	0.258***	0.349***	0.494***	0.519***	0.571***	0.678***
	(0.016)	(0.031)	(0.045)	(0.062)	(0.075)	(0.096)	(0.112)	(0.118)	(0.138)
GINI disp.	0.044**	0.123***	0.167***	0.215***	0.259***	0.358***	0.372***	0.418***	0.523***
	(0.020)	(0.038)	(0.051)	(0.058)	(0.067)	(0.082)	(0.095)	(0.096)	(0.106)
Observations	746	746	745	745	743	728	718	701	677
Labour market reform									
GINI market	0.028	0.068**	0.073	0.042	-0.018	0.047	0.164	0.062	0.223
	(0.020)	(0.033)	(0.071)	(0.096)	(0.102)	(0.105)	(0.144)	(0.156)	(0.210)
GINI disp.	0.093***	0.108***	0.160***	0.198**	0.246***	0.286***	0.488***	0.655***	0.782***
	(0.018)	(0.024)	(0.050)	(0.078)	(0.089)	(0.099)	(0.160)	(0.153)	(0.166)
Observations	758	749	747	745	730	707	683	659	635

Notes: The table shows the ATE responses of the AIPW local projection estimates of labour and product market reforms on GINI market and GINI disposable. The estimates are based on equation (1). The time fixed effects in the first stage logit model causes some years at the end of the sample to be omitted due to lack reforms in some years. The number of observations per each additional period forecast therefore does not decline with the number of countries in the sample. To account for the imported uncertainty from the first-stage logit estimation we report cluster-bootstrapped standard errors with 500 repetitions in parentheses: * p < 0.10, ** p < 0.05, *** p < 0.01.

Table A9. AIPW ATE's of product and labour market reforms on GINI market and GINI disposable, conditional on social expenditures

	(1) ΔGINI h=1	(2) ΔGINI h=2	(3) ΔGINI h=3	(4) ΔGINI h=4	(5) ΔGINI h=5	(6) ΔGINI h=6	(7) ΔGINI h=7	(8) ΔGINI h=8	(9) ΔGINI h=9
Product market reform									
GINI market									
Above median social exp.	-0.034	0.038	0.074	0.097	0.157	0.150	0.252*	0.440**	0.420**
	(0.021)	(0.049)	(0.069)	(0.088)	(0.105)	(0.136)	(0.152)	(0.176)	(0.169)
Below median social exp.	0.053	0.093	0.231***	0.457***	0.686***	0.727***	0.701***	0.310**	0.651***
	(0.039)	(0.062)	(0.071)	(0.125)	(0.178)	(0.190)	(0.206)	(0.134)	(0.241)
GINI disposable									
Above median social exp.	0.072***	0.107***	0.112**	0.072	0.081	0.106	0.134	0.181	0.186
	(0.024)	(0.040)	(0.056)	(0.083)	(0.102)	(0.113)	(0.128)	(0.133)	(0.170)
Below median social exp.	0.012	0.230***	0.342***	0.252***	0.336***	0.434***	0.521***	0.533***	0.710***
	(0.028)	(0.052)	(0.071)	(0.073)	(0.090)	(0.109)	(0.114)	(0.130)	(0.206)
Observations	746	746	745	745	743	728	718	701	677
Labour market reform									
GINI market									
Above median social exp.	-0.015	0.686	1.263**	1.555*	1.126	1.086	-0.606	0.164	-0.348
	(0.177)	(0.420)	(0.623)	(0.905)	(0.947)	(1.062)	(0.481)	(0.615)	(0.314)
Below median social exp.	-0.083	0.773*	1.339*	1.830*	1.696*	1.618*	-0.384	0.735	0.222
	(0.113)	(0.414)	(0.737)	(0.982)	(0.886)	(0.962)	(0.448)	(0.536)	(0.264)
GINI disposable									
Above median social exp.	1.135**	1.660***	2.541**	2.718**	0.933	0.601	-0.029	-0.131	-0.206
	(0.556)	(0.619)	(1.014)	(1.146)	(1.549)	(1.621)	(0.287)	(0.382)	(0.545)
Below median social exp.	1.743***	2.330***	3.644***	4.039***	2.701***	2.287***	0.127	0.565**	0.002
	(0.394)	(0.492)	(0.837)	(0.909)	(0.635)	(0.686)	(0.286)	(0.275)	(0.513)
Observations	758	749	747	745	730	707	683	659	635

Notes: The table shows the ATE responses of the AIPW local projection estimates of labour and product market reforms on GINI market and GINI disposable conditional on social expenditures. The estimates are based on equation (2). The time fixed effects in the first stage logit model causes some years at the end of the sample to be omitted due to lack reforms in some years. The number of observations per each additional period forecast therefore does not decline with the number of countries in the sample. To account for the imported uncertainty from the first-stage logit estimation we report cluster-bootstrapped standard errors with 500 repetitions in parentheses: * p < 0.10, ** p < 0.05, *** p < 0.01.

Table A10. AIPW ATE's of product and labour market reforms on top 10% and top 1% income shares

	(1) Δincome share h=1	(2) Δincome share h=2	(3) Δincome share h=3	(4) Δincome share h=4	(5) Δincome share h=5	(6) Δincome share h=6	(7) Δincome share h=7	(8) Δincome share h=8	(9) Δincome share h=9
Product market reform									
Top 10%	0.001**	0.000	-0.000	0.001	0.003*	0.003**	0.002*	0.001	0.003**
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Observations	742	742	742	742	742	742	742	717	717
Top 1%	0.001*	0.000	-0.000	0.001	0.001	0.001	0.001	-0.001	0.000
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Observations	748	748	748	748	748	748	748	723	723
Labour market reform									
Top 10%	0.003***	0.004***	0.001**	0.002***	0.002***	0.001	0.002*	0.003***	0.007***
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Observations	763	763	740	740	740	740	716	692	668
Top 1%	0.003***	0.002***	0.001**	0.001	0.001	0.001*	0.002***	0.000	-0.000
	(0.001)	(0.000)	(0.000)	(0.000)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Observations	768	768	745	745	745	745	721	697	673

Notes: The table shows the ATE responses of the AIPW local projection estimates of labour and product market reforms on the top 10% and top 1% income shares. The estimates are based on equation (1). The time fixed effects in the first stage logit model causes some years at the end of the sample to be omitted due to lack reforms in some years. The number of observations per each additional period forecast therefore does not decline with the number of countries in the sample. To account for the imported uncertainty from the first-stage logit estimation we report cluster-bootstrapped standard errors with 500 repetitions in parentheses: * p < 0.10, ** p < 0.05, *** p < 0.01.

Table A11. AIPW ATE's of product and labour market reforms on top 1% and top 10% income shares, conditional on social expenditures

	(1) Δincome share h=1	(2) Δincome share h=2	(3) Δincome share h=3	(4) Δincome share h=4	(5) Δincome share h=5	(6) Δincome share h=6	(7) Δincome share h=7	(8) Δincome share h=8	(9) Δincome share h=9
Product market reform									
Top 10%									
Above median social exp.	0.001	-0.002	-0.000	0.000	0.005**	0.004***	0.001	0.002	0.005**
	(0.001)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)
Below median social exp.	-0.001	0.000	0.001	0.006***	0.004**	0.004**	0.004**	0.004	0.005**
	(0.001)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)
Observations	742	742	742	742	742	742	742	717	717
Top 1%									
Above median social exp.	0.002**	-0.001	0.000	0.000	0.002	0.002	0.000	0.001	0.002
	(0.001)	(0.001)	(0.001)	(0.001)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)
Below median social exp.	-0.002*	0.001	0.001	0.006***	0.006***	0.002	0.005***	0.003	0.005**
	(0.001)	(0.001)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)
Observations	748	748	748	748	748	748	748	723	723
Labour market reform									
Top 10%									
Above median social exp.	-0.041***	0.016***	0.041***	0.029***	0.026***	0.025***	0.061***	0.001	0.003
	(0.016)	(0.004)	(0.016)	(0.009)	(0.006)	(0.007)	(0.011)	(0.011)	(0.006)
Below median social exp.	-0.032*	0.015***	0.020	0.014	0.012	0.011	0.036*	0.004	0.006
	(0.018)	(0.004)	(0.013)	(0.010)	(0.008)	(0.009)	(0.020)	(0.006)	(0.008)
Observations	763	763	740	740	740	740	716	692	668
Top 1%									
Above median social exp.	-0.018*	0.012***	0.026**	0.033**	0.019***	0.019***	0.038***	0.009**	0.017***
	(0.010)	(0.003)	(0.011)	(0.014)	(0.006)	(0.006)	(0.009)	(0.004)	(0.005)
Below median social exp.	-0.015	0.005	0.014*	0.016	0.010	0.010	0.024*	0.007*	0.009
	(0.010)	(0.003)	(0.008)	(0.012)	(0.007)	(0.007)	(0.013)	(0.004)	(0.008)
Observations	768	768	745	745	745	745	721	697	673

Notes: The table shows the ATE responses of the AIPW local projection estimates of labour and product market reforms on the top 10% and top 1% income shares, conditional on social expenditures. The estimates are based on equation (2). The time fixed effects in the first stage logit model causes some years at the end of the sample to be omitted due to lack reforms in some years. The number of observations per each additional period forecast therefore does not decline with the number of countries in the sample. To account for the imported uncertainty from the first-stage logit estimation we report cluster-bootstrapped standard errors with 500 repetitions in parentheses: * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table A12. Product market counter reforms and the change in GINI market, local projections

VARIABLES	(1) ΔGINI h=1	(2) ΔGINI h=2	(3) ΔGINI h=3	(4) ΔGINI h=4	(5) ΔGINI h=5	(6) ΔGINI h=6	(7) ΔGINI h=7	(8) ΔGINI h=8	(9) ΔGINI h=9
Product market counter reform	-0.171	-0.250	-0.440	-0.395	-0.319	-0.117	-0.168	-0.260	-0.090
	(0.136)	(0.164)	(0.367)	(0.440)	(0.388)	(0.241)	(0.316)	(0.403)	(0.513)
L1. ΔGINI	0.502***	0.882***	1.171***	1.282***	1.329***	1.421***	1.417***	1.434***	1.539***
	(0.046)	(0.079)	(0.097)	(0.118)	(0.139)	(0.175)	(0.230)	(0.291)	(0.322)
L2. ΔGINI	0.118***	0.196***	0.146*	0.124	0.215*	0.208	0.263*	0.277	0.232
	(0.035)	(0.065)	(0.074)	(0.102)	(0.124)	(0.140)	(0.141)	(0.176)	(0.170)
L3. ΔGINI	0.022	-0.045	-0.092	-0.008	-0.013	0.013	0.025	0.049	0.124
	(0.059)	(0.062)	(0.080)	(0.114)	(0.158)	(0.179)	(0.181)	(0.190)	(0.216)
L4. ΔGINI	-0.065	-0.108	-0.025	-0.032	0.009	0.054	0.094	0.091	-0.148
	(0.068)	(0.098)	(0.140)	(0.170)	(0.184)	(0.196)	(0.197)	(0.207)	(0.247)
L5. ΔGINI	-0.020	0.068	0.075	0.119	0.127	0.172	0.164	-0.066	-0.127
	(0.048)	(0.084)	(0.107)	(0.127)	(0.158)	(0.166)	(0.190)	(0.187)	(0.185)
L6. ΔGINI	0.094	0.107	0.146	0.126	0.146	0.138	-0.095	-0.118	-0.096
	(0.060)	(0.106)	(0.128)	(0.148)	(0.161)	(0.172)	(0.202)	(0.194)	(0.233)
L7. ΔGINI	-0.050	-0.084	-0.142*	-0.204**	-	-	-	-	-
					0.371***	0.644***	0.681***	0.678***	0.694***
	(0.038)	(0.061)	(0.080)	(0.096)	(0.113)	(0.142)	(0.133)	(0.141)	(0.200)
GDP growth	0.131	-0.705	-1.800	-2.855*	-2.803	-1.673	-0.242	3.909	3.774
	(0.439)	(0.885)	(1.233)	(1.638)	(2.543)	(2.789)	(2.884)	(4.029)	(4.236)
L1. GDP growth	-0.372	-0.377	-0.122	1.115	1.650	2.412	4.569	5.484	4.851
	(0.455)	(0.672)	(0.905)	(1.398)	(1.656)	(2.116)	(2.785)	(3.354)	(3.189)
Employment rate	-2.124	-0.777	4.536	12.567*	20.992**	24.630**	24.371*	16.664	21.512
	(1.570)	(3.960)	(5.672)	(7.307)	(9.298)	(11.294)	(12.382)	(12.355)	(13.407)
L1. Employment rate	3.349**	4.041	1.109	-4.402	-10.763	-12.639	-10.516	-1.077	-4.916
	(1.425)	(3.431)	(4.861)	(6.452)	(8.448)	(10.278)	(11.219)	(11.078)	(13.054)
Inflation rate	0.000	-0.011	-0.024*	-0.033*	-0.035*	-0.035	-0.030	-0.016	-0.012
	(0.006)	(0.009)	(0.014)	(0.017)	(0.020)	(0.024)	(0.022)	(0.024)	(0.027)
L1. Inflation rate	-0.004	0.005	0.018	0.029	0.037*	0.042	0.044	0.034	0.016
	(0.007)	(0.010)	(0.016)	(0.018)	(0.021)	(0.027)	(0.030)	(0.029)	(0.033)
Labour market counter reform	-0.047	-0.167*	-0.266**	-0.323**	-0.344*	-0.391*	-0.365*	-0.300	-0.256
	(0.042)	(0.090)	(0.120)	(0.145)	(0.185)	(0.215)	(0.211)	(0.209)	(0.255)
Constant	-	-	-	-	-	-	-	-	-
	0.571***	1.388***	3.167***	4.306***	3.668***	6.200***	7.223***	7.772***	8.412***
	(0.177)	(0.387)	(0.645)	(0.884)	(1.107)	(1.320)	(1.362)	(1.540)	(1.690)
Country and time fixed-effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Treatment leads=h	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Treatment lags	4	4	4	4	4	4	4	4	4
Observations	906	881	856	831	806	781	756	731	706
R-squared	0.461	0.443	0.399	0.350	0.317	0.303	0.283	0.267	0.256
Number of Countries	25	25	25	25	25	25	25	25	25
Pesaran CD-test statistic	-2.724	-2.825	-2.892	-2.976	-2.882	-2.754	-2.745	-2.626	-2.527

Notes: The models are based on equation (1). The Pesaran (2015) test for cross-sectional dependence is conducted on the disturbances from a model with SEs clustered at the country level. The tests indicate spatial dependence in the errors. Spatial correlation consistent standard errors are therefore shown in parentheses: *** p<0.01, ** p<0.05, * p<0.1.

Table A13. Labour market counter reforms and the change in GINI market, local projections

VARIABLES	(1) ΔGINI h=1	(2) ΔGINI h=2	(3) ΔGINI h=3	(4) ΔGINI h=4	(5) ΔGINI h=5	(6) ΔGINI h=6	(7) ΔGINI h=7	(8) ΔGINI h=8	(9) ΔGINI h=9
Labour market counter reform	-0.047	-0.182**	-0.270**	-0.359**	-0.402**	-0.460**	-0.510**	-0.468*	-0.473
	(0.039)	(0.088)	(0.124)	(0.159)	(0.195)	(0.217)	(0.227)	(0.232)	(0.315)
L1. ΔGINI	0.497***	0.872***	1.170***	1.281***	1.333***	1.427***	1.421***	1.438***	1.508***
	(0.046)	(0.083)	(0.092)	(0.114)	(0.132)	(0.166)	(0.211)	(0.261)	(0.298)
L2. ΔGINI	0.115***	0.197***	0.145*	0.127	0.211	0.208	0.258*	0.249	0.236
	(0.035)	(0.069)	(0.079)	(0.104)	(0.128)	(0.147)	(0.150)	(0.178)	(0.177)
L3. ΔGINI	0.029	-0.033	-0.071	0.020	0.019	0.051	0.036	0.073	0.102
	(0.060)	(0.062)	(0.083)	(0.118)	(0.157)	(0.173)	(0.174)	(0.193)	(0.223)
L4. ΔGINI	-0.069	-0.114	-0.041	-0.055	-0.024	0.002	0.056	0.026	-0.196
	(0.067)	(0.095)	(0.137)	(0.167)	(0.178)	(0.184)	(0.191)	(0.208)	(0.254)
L5. ΔGINI	-0.016	0.074	0.077	0.112	0.104	0.147	0.119	-0.094	-0.163
	(0.047)	(0.083)	(0.104)	(0.124)	(0.154)	(0.165)	(0.195)	(0.197)	(0.199)
L6. ΔGINI	0.099	0.115	0.153	0.127	0.152	0.138	-0.081	-0.118	-0.078
	(0.061)	(0.105)	(0.129)	(0.146)	(0.164)	(0.179)	(0.215)	(0.196)	(0.243)
L7. ΔGINI	-0.053	-0.094	-0.158*	-0.215**	-	-	-	-	-
					0.380***	0.638***	0.684***	0.664***	0.683***
	(0.037)	(0.064)	(0.087)	(0.104)	(0.121)	(0.149)	(0.148)	(0.161)	(0.210)
GDP growth	0.128	-0.894	-1.837	-2.845*	-2.700	-1.486	-0.415	3.679	3.993
	(0.448)	(0.870)	(1.256)	(1.628)	(2.226)	(2.336)	(2.304)	(3.356)	(3.448)
L1. GDP growth	-0.436	-0.354	-0.066	1.165	1.684	2.376	4.829*	6.057**	5.300
	(0.427)	(0.659)	(0.887)	(1.379)	(1.640)	(2.029)	(2.484)	(2.929)	(3.235)
Employment rate	-2.297	-0.850	3.535	10.493	18.157*	21.633*	21.586	15.337	21.659
	(1.528)	(3.960)	(5.789)	(7.449)	(9.475)	(11.621)	(12.816)	(13.511)	(14.338)
L1. Employment rate	3.550**	4.156	2.305	-1.879	-7.131	-8.368	-5.724	3.164	-1.466
	(1.356)	(3.417)	(5.053)	(6.750)	(8.779)	(10.807)	(11.966)	(12.608)	(14.116)
Inflation rate	0.001	-0.009	-0.021	-0.026	-0.027	-0.026	-0.021	-0.007	-0.005
	(0.005)	(0.009)	(0.015)	(0.019)	(0.022)	(0.025)	(0.024)	(0.028)	(0.031)
L1. Inflation rate	-0.004	0.004	0.016	0.024	0.030	0.035	0.036	0.027	0.012
	(0.006)	(0.010)	(0.016)	(0.017)	(0.019)	(0.024)	(0.029)	(0.031)	(0.039)
Product market counter reform	-0.128	-0.174	-0.373	-0.366	-0.333	-0.253	-0.509*	-0.745*	-0.839
	(0.167)	(0.216)	(0.410)	(0.450)	(0.370)	(0.221)	(0.263)	(0.386)	(0.512)
Constant	-	-	-	-	-	-	-	-	-
	0.573***	1.420***	3.225***	4.457***	3.965***	6.851***	8.045***	8.939***	9.762***
	(0.182)	(0.380)	(0.629)	(0.869)	(1.057)	(1.380)	(1.445)	(1.735)	(2.034)
Country and time fixed-effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Treatment leads=h	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Treatment lags	4	4	4	4	4	4	4	4	4
Observations	906	881	856	831	806	781	756	731	706
R-squared	0.463	0.445	0.405	0.355	0.324	0.309	0.291	0.276	0.262
Number of Countries	25	25	25	25	25	25	25	25	25
Pesaran CD-test statistic	-2.661	-2.777	-2.844	-2.851	-2.715	-2.560	-2.539	-2.461	-2.440

Notes: The models are based on equation (1). The Pesaran (2015) test for cross-sectional dependence is conducted on the disturbances from a model with SEs clustered at the country level. The tests indicate spatial dependence in the errors. Spatial correlation consistent standard errors are therefore shown in parentheses: *** p<0.01, ** p<0.05, * p<0.1.

Table A14. Product market counter reforms and the change in GINI disposable, local projections

VARIABLES	(1) ΔGINI h=1	(2) ΔGINI h=2	(3) ΔGINI h=3	(4) ΔGINI h=4	(5) ΔGINI h=5	(6) ΔGINI h=6	(7) ΔGINI h=7	(8) ΔGINI h=8	(9) ΔGINI h=9
Product market counter reform	0.005	0.038	-0.026	-0.060	-0.065	-0.676***	-0.721***	-0.681***	-0.479*
	(0.042)	(0.100)	(0.188)	(0.275)	(0.390)	(0.233)	(0.255)	(0.250)	(0.278)
L1. ΔGINI	0.459***	0.691***	0.822***	0.785***	0.777***	0.761***	0.680***	0.650***	0.704***
	(0.028)	(0.058)	(0.087)	(0.095)	(0.104)	(0.113)	(0.133)	(0.159)	(0.216)
L2. ΔGINI	0.018	0.068	-0.019	-0.015	-0.020	-0.086	-0.048	0.009	0.019
	(0.044)	(0.070)	(0.083)	(0.090)	(0.084)	(0.087)	(0.103)	(0.142)	(0.117)
L3. ΔGINI	0.054	-0.014	0.000	0.017	-0.032	-0.013	0.036	0.046	0.009
	(0.041)	(0.047)	(0.069)	(0.072)	(0.080)	(0.090)	(0.104)	(0.092)	(0.114)
L4. ΔGINI	-0.099*	-0.101	-0.071	-0.111	-0.072	0.007	0.026	-0.002	-0.091
	(0.051)	(0.070)	(0.083)	(0.096)	(0.106)	(0.118)	(0.113)	(0.127)	(0.126)
L5. ΔGINI	0.044	0.097	0.067	0.089	0.143	0.151	0.123	0.029	0.023
	(0.050)	(0.081)	(0.105)	(0.124)	(0.149)	(0.136)	(0.150)	(0.155)	(0.168)
L6. ΔGINI	0.029	-0.010	0.010	0.050	0.070	0.040	-0.049	-0.057	-0.063
	(0.042)	(0.070)	(0.095)	(0.131)	(0.113)	(0.117)	(0.115)	(0.115)	(0.106)
L7. ΔGINI	-0.031	-0.019	0.005	-0.006	-0.081	-0.181**	-0.215**	-0.257**	-0.313**
	(0.034)	(0.055)	(0.082)	(0.079)	(0.082)	(0.081)	(0.089)	(0.101)	(0.129)
GDP growth	-0.696	-1.148*	-1.704**	-2.394**	-2.948**	-2.752*	-3.028*	-2.214	-3.247*
	(0.427)	(0.609)	(0.765)	(1.031)	(1.367)	(1.566)	(1.589)	(1.909)	(1.909)
L1. GDP growth	0.284	-0.022	-0.401	0.184	-0.496	-0.985	-1.511	-2.226	-3.248
	(0.402)	(0.627)	(0.824)	(1.221)	(1.198)	(1.372)	(1.758)	(1.876)	(2.223)
Employment rate	0.030	1.529	3.408	4.080	6.628	6.542	7.542	3.012	4.746
	(1.502)	(3.143)	(3.690)	(4.832)	(6.843)	(8.861)	(10.364)	(11.294)	(12.290)
L1. Employment rate	0.128	-1.039	-2.662	-3.156	-5.710	-5.754	-6.887	-2.499	-4.595
	(1.435)	(3.008)	(3.622)	(4.405)	(6.226)	(8.131)	(9.882)	(11.365)	(12.266)
Inflation rate	-0.012*	-0.019**	-0.021*	-0.030**	-0.026*	-0.022	-0.020	-0.010	0.001
	(0.006)	(0.008)	(0.011)	(0.013)	(0.013)	(0.016)	(0.015)	(0.016)	(0.016)
L1. Inflation rate	0.010*	0.016**	0.017	0.027**	0.026*	0.027	0.031	0.025	0.010
	(0.006)	(0.006)	(0.010)	(0.012)	(0.014)	(0.019)	(0.021)	(0.020)	(0.020)
Labour market counter reform	-0.047	-0.164**	-0.274***	-0.378***	-0.394***	-0.466***	-0.440**	-0.411*	-0.277
	(0.034)	(0.065)	(0.087)	(0.110)	(0.136)	(0.163)	(0.182)	(0.220)	(0.235)
Constant	-0.121	-0.270	-0.422	-0.534	0.234	-0.723	-0.182	0.006	0.088
	(0.164)	(0.358)	(0.598)	(0.785)	(0.827)	(0.844)	(0.783)	(0.721)	(0.774)
Country and time fixed-effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Treatment leads=h	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Treatment lags	4	4	4	4	4	4	4	4	4
Observations	906	881	856	831	806	781	756	731	706
R-squared	0.287	0.240	0.194	0.151	0.128	0.111	0.0973	0.0927	0.0947
Number of Countries	25	25	25	25	25	25	25	25	25
Pesaran CD-test statistic	-3.552	-3.479	-3.334	-3.221	-3.155	-3.146	-3.095	-3.015	-2.910

Notes: The models are based on equation (1). The Pesaran (2015) test for cross-sectional dependence is conducted on the disturbances from a model with SEs clustered at the country level. The tests indicate spatial dependence in the errors. Spatial correlation consistent standard errors are therefore shown in parentheses: *** p<0.01, ** p<0.05, * p<0.1.

Table A15. Labour market counter reforms and the change in GINI disposable, local projections

VARIABLES	(1) ΔGINI h=1	(2) ΔGINI h=2	(3) ΔGINI h=3	(4) ΔGINI h=4	(5) ΔGINI h=5	(6) ΔGINI h=6	(7) ΔGINI h=7	(8) ΔGINI h=8	(9) ΔGINI h=9
Labour market counter reform	-0.061*	-0.203***	-0.317***	-0.449***	-0.502***	-0.617***	-0.655***	-0.660**	-0.593*
	(0.034)	(0.062)	(0.099)	(0.129)	(0.159)	(0.185)	(0.228)	(0.259)	(0.307)
L1. ΔGINI	0.451***	0.673***	0.795***	0.743***	0.730***	0.701***	0.609***	0.562***	0.574**
	(0.028)	(0.059)	(0.089)	(0.100)	(0.103)	(0.114)	(0.129)	(0.156)	(0.222)
L2. ΔGINI	0.014	0.059	-0.040	-0.038	-0.052	-0.122	-0.102	-0.055	-0.040
	(0.045)	(0.070)	(0.085)	(0.092)	(0.082)	(0.084)	(0.093)	(0.132)	(0.113)
L3. ΔGINI	0.053	-0.018	-0.000	0.012	-0.039	-0.027	0.018	0.026	-0.019
	(0.042)	(0.049)	(0.070)	(0.072)	(0.073)	(0.085)	(0.103)	(0.087)	(0.108)
L4. ΔGINI	-0.103**	-0.107	-0.091	-0.138	-0.109	-0.035	-0.018	-0.041	-0.117
	(0.049)	(0.068)	(0.079)	(0.089)	(0.099)	(0.110)	(0.104)	(0.119)	(0.119)
L5. ΔGINI	0.047	0.098	0.065	0.083	0.137	0.137	0.107	0.017	0.019
	(0.049)	(0.077)	(0.095)	(0.114)	(0.141)	(0.123)	(0.139)	(0.140)	(0.151)
L6. ΔGINI	0.026	-0.019	-0.007	0.027	0.041	0.012	-0.072	-0.071	-0.079
	(0.041)	(0.070)	(0.093)	(0.127)	(0.109)	(0.118)	(0.115)	(0.112)	(0.102)
L7. ΔGINI	-0.034	-0.027	-0.002	-0.015	-0.085	-0.173**	-0.201**	-0.242**	-0.295**
	(0.034)	(0.055)	(0.080)	(0.076)	(0.082)	(0.083)	(0.091)	(0.098)	(0.125)
GDP growth	-0.661	-1.147*	-1.550*	-2.117*	-2.452*	-2.264	-2.610	-1.819	-2.291
	(0.470)	(0.666)	(0.813)	(1.067)	(1.445)	(1.679)	(1.784)	(2.154)	(1.986)
L1. GDP growth	0.251	-0.015	-0.410	0.035	-0.653	-1.143	-1.474	-1.918	-3.215
	(0.406)	(0.639)	(0.803)	(1.129)	(1.169)	(1.397)	(1.755)	(1.920)	(2.490)
Employment rate	-0.201	0.929	1.767	1.522	3.372	3.025	3.826	0.506	3.684
	(1.491)	(3.084)	(3.668)	(5.029)	(7.268)	(9.736)	(11.649)	(12.966)	(13.261)
L1. Employment rate	0.373	-0.394	-0.827	-0.169	-1.504	-0.684	-0.807	3.426	0.856
	(1.405)	(2.897)	(3.520)	(4.575)	(6.753)	(9.260)	(11.567)	(13.510)	(13.847)
Inflation rate	-0.010*	-0.015*	-0.015	-0.020	-0.016	-0.011	-0.009	0.005	0.015
	(0.006)	(0.008)	(0.013)	(0.015)	(0.016)	(0.018)	(0.017)	(0.018)	(0.018)
L1. Inflation rate	0.009	0.014**	0.013	0.019	0.018	0.018	0.023	0.016	0.003
	(0.005)	(0.006)	(0.010)	(0.012)	(0.014)	(0.019)	(0.022)	(0.020)	(0.022)
Product market counter reform	0.062	0.145*	0.124	0.097	0.146	-0.436	-0.561*	-0.677**	-0.541
	(0.040)	(0.076)	(0.125)	(0.207)	(0.320)	(0.270)	(0.288)	(0.316)	(0.326)
Constant	-0.127	-0.309	-0.495	-0.674	-0.157	-1.548*	-1.270	-1.526*	-1.870*
	(0.168)	(0.368)	(0.613)	(0.795)	(0.780)	(0.864)	(0.821)	(0.866)	(1.064)
Country and time fixed-effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Treatment leads=h	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Treatment lags	4	4	4	4	4	4	4	4	4
Observations	906	881	856	831	806	781	756	731	706
R-squared	0.295	0.251	0.212	0.174	0.160	0.149	0.144	0.148	0.157
Number of Countries	25	25	25	25	25	25	25	25	25
Pesaran CD-test statistic	-3.586	-3.541	-3.386	-3.228	-3.111	-3.070	-2.937	-2.770	-2.629

Notes: The models are based on equation (1). The Pesaran (2015) test for cross-sectional dependence is conducted on the disturbances from a model with SEs clustered at the country level. The tests indicate spatial dependence in the errors. Spatial correlation consistent standard errors are therefore shown in parentheses: *** p<0.01, ** p<0.05, * p<0.1.

Table A16. Local Projections: effect of labour and product market counter-reforms on Gini market and GINI disposable, conditional on social expenditures

	(1) ΔGINI h=1	(2) ΔGINI h=2	(3) ΔGINI h=3	(4) ΔGINI h=4	(5) ΔGINI h=5	(6) ΔGINI h=6	(7) ΔGINI h=7	(8) ΔGINI h=8	(9) ΔGINI h=9
Product market counter reform									
GINI market									
Above median social exp.	-0.311***	-0.351*	-0.702**	-0.693	-0.885	-	-	-	-
	(0.086)	(0.192)	(0.285)	(0.416)	(0.525)				
Below median social exp.	0.071	0.128	0.259	0.348	0.388	0.278	0.183	0.045	0.038
	(0.052)	(0.127)	(0.165)	(0.224)	(0.314)	(0.366)	(0.448)	(0.568)	(0.741)
GINI disposable									
Above median social exp.	0.075	0.203	0.263	0.260	0.148	-	-	-	-
	(0.065)	(0.125)	(0.191)	(0.249)	(0.242)				
Below median social exp.	-0.006	0.058	-0.085	-0.219	-0.369	-0.646*	-0.641	-0.647	-0.585
	(0.074)	(0.149)	(0.195)	(0.268)	(0.321)	(0.368)	(0.379)	(0.445)	(0.517)
Observations	852	827	802	777	752	727	702	677	652
Labour market counter reform									
GINI market									
Above median social exp.	-0.038	-0.152	-0.295*	-0.367	-0.306	-0.117	-0.042	0.179	0.238
	(0.074)	(0.095)	(0.167)	(0.239)	(0.273)	(0.392)	(0.522)	(0.650)	(0.767)
Below median social exp.	-0.098	-0.290*	-0.466**	-0.647**	-0.795**	-1.011***	-1.256***	-1.414***	-1.601***
	(0.061)	(0.139)	(0.204)	(0.268)	(0.317)	(0.343)	(0.371)	(0.435)	(0.541)
GINI disposable									
Above median social exp.	0.048	-0.012	-0.093	-0.158	-0.122	-0.098	-0.030	0.173	0.243
	(0.058)	(0.078)	(0.179)	(0.216)	(0.261)	(0.352)	(0.490)	(0.594)	(0.669)
Below median social exp.	-0.146	-0.390**	-0.614**	-0.859**	-0.978**	-1.167***	-1.370***	-1.434***	-1.398**
	(0.087)	(0.176)	(0.262)	(0.314)	(0.340)	(0.342)	(0.387)	(0.448)	(0.497)
Observations	852	827	802	777	752	727	702	677	652

Notes: The models are based on equation (2). Because of too few product market counter reforms the reform indicator is dropped due to collinearity at h>5 if social expenditures are above the median. We lose some observations because of a lack of data on social expenditures. Spatial correlation consistent standard errors are therefore shown in parentheses: *** p<0.01, ** p<0.05, * p<0.1.

Table A17. Local projections of counter product and labour market reforms on top 10% and top 1% income shares

	(1) Δincome share h=1	(2) Δincome share h=2	(3) Δincome share h=3	(4) Δincome share h=4	(5) Δincome share h=5	(6) Δincome share h=6	(7) Δincome share h=7	(8) Δincome share h=8	(9) Δincome share h=9
Product market counter reform									
Top 10%	-0.002	0.002	-0.008	-0.023	-0.028	-0.026	-0.025***	-0.034***	-0.020**
	(0.004)	(0.004)	(0.012)	(0.021)	(0.022)	(0.019)	(0.007)	(0.008)	(0.008)
Observations	941	916	891	866	841	816	791	766	741
Top 1%	-0.000	0.005**	-0.006	-0.013	-0.017	-0.014*	-0.009*	-0.019***	-0.012**
	(0.005)	(0.002)	(0.007)	(0.010)	(0.012)	(0.008)	(0.005)	(0.005)	(0.006)
Observations	947	922	897	872	847	822	797	772	747
Labour market counter reform									
Top 10%	-0.001	-0.001	0.001	-0.003	-0.004	-0.005	-0.007	-0.007	-0.009*
	(0.002)	(0.003)	(0.004)	(0.004)	(0.004)	(0.005)	(0.006)	(0.005)	(0.005)
Observations	941	916	891	866	841	816	791	766	741
Top 1%	-0.000	0.000	0.003	0.000	-0.001	-0.001	-0.002	0.000	-0.000
	(0.001)	(0.002)	(0.003)	(0.002)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)
Observations	947	922	897	872	847	822	797	772	747

Notes: The table shows the ATE responses of the AIPW local projection estimates of labour and product market counter reforms on the top 10% and top 1% income shares. The estimates are based on equation (1). The time fixed effects in the first stage logit model causes some years at the end of the sample to be omitted due to lack reforms in some years. The number of observations per each additional period forecast therefore does not decline with the number of countries in the sample. To account for the imported uncertainty from the first-stage logit estimation we report cluster-bootstrapped standard errors with 500 repetitions in parentheses: * p < 0.10, ** p < 0.05, *** p < 0.01.

Table A18. Local Projections: effect of labour and product market counter-reforms on top 10% and top 1% income shares, conditional on social expenditures

	(1) Δincome share h=1	(2) Δincome share h=2	(3) Δincome share h=3	(4) Δincome share h=4	(5) Δincome share h=5	(6) Δincome share h=6	(7) Δincome share h=7	(8) Δincome share h=8	(9) Δincome share h=9
Product market counter reform									
Top 10%									
Above median social exp.	-0.008***	0.005	0.011**	0.011*	0.008	0.004	-	-	-
	(0.002)	(0.004)	(0.005)	(0.006)	(0.007)	(0.007)			
Below median social exp.	-0.000	-0.007	- 0.035***	- 0.068***	- 0.076***	- 0.072***	- 0.049***	- 0.050***	- 0.033***
	(0.004)	(0.005)	(0.005)	(0.006)	(0.007)	(0.008)	(0.006)	(0.008)	(0.008)
Observations	882	857	832	807	782	757	732	707	682
Top 1%									
Above median social exp.	-0.006***	0.003	0.006	0.007	0.005	0.004	-	-	-
	(0.002)	(0.003)	(0.004)	(0.005)	(0.006)	(0.006)			
Below median social exp.	-0.003	0.000	- 0.026***	- 0.038***	- 0.043***	- 0.036***	- 0.025***	- 0.029***	- 0.020***
	(0.004)	(0.004)	(0.004)	(0.005)	(0.005)	(0.004)	(0.004)	(0.005)	(0.004)
Observations	888	863	838	813	788	763	738	613	688
Labour market counter reform									
Top 10%									
Above median social exp.	0.001	0.001	0.005	0.006	0.010**	0.013**	0.014**	0.019**	0.016**
	(0.002)	(0.003)	(0.005)	(0.004)	(0.004)	(0.005)	(0.006)	(0.007)	(0.007)
Below median social exp.	-0.001	-0.002	-0.002	-0.012*	-0.016**	-0.017**	- 0.019***	- 0.019***	-0.018**
	(0.002)	(0.003)	(0.005)	(0.006)	(0.006)	(0.006)	(0.006)	(0.006)	(0.008)
Observations	882	857	832	807	782	757	732	707	682
Top 1%									
Above median social exp.	0.001	0.003	0.006	0.006*	0.008**	0.011**	0.011**	0.016***	0.016**
	(0.002)	(0.003)	(0.004)	(0.003)	(0.003)	(0.004)	(0.004)	(0.005)	(0.006)
Below median social exp.	-0.001	-0.002	-0.001	-0.006	-0.009*	-0.009*	-0.008*	-0.007	-0.006
	(0.001)	(0.002)	(0.004)	(0.004)	(0.005)	(0.005)	(0.004)	(0.004)	(0.005)
Observations	888	863	838	813	788	763	738	613	688

Notes: The models are based on equation (2). Because of too few product market counter reforms the reform indicator is dropped due to collinearity at h>6 if social expenditures are above the median. We lose some observations because of a lack of data on social expenditures. Spatial correlation consistent standard errors are therefore shown in parentheses: *** p<0.01, ** p<0.05, * p<0.1.

APPENDIX B

Table B1. Employment Protection Legislation, Regular Workers

	Year	Area	Content	Normative language	Mention in other reports	Large change in OECD indicator	reform /counter -reform
Italy	2013	procedural inconvenience	Comprehensive labour market reform (with explicit provision for monitoring of its effects) including: relaxation of employment protection rules, reduced incentives to hire on non-permanent contacts…. potentially increase in flexibility on the firing side... (pg. 42, 2013) …reform relaxed employment protection rules on permanent contracts, notably limiting the possibility of reinstatement following unfair dismissal. (pg. 27, 2015)		pg. 27, 2015	yes for 2013	1
Italy	2014		the "Jobs Act" adopted in December 2014	The government's programme for the labour market and social policy is broadly set out in the Jobs Act. The Act seeks to outline a number of broad objectives for the labour market, which the government will be entrusted to implement. It aims to go further than earlier reforms. Its broad orientation seems to be adequate and consistent: reforming employment protection legislation and its dualism, which would allow more efficient turnover, and extending social safety nets as well as strengthening activation policies, which would help people attached to the labour market (pg. 61, 2015). With the "Jobs Act" adopted in December 2014, the government has a mandate to introduce measures to rationalise employment protection, expand active labour market policy and make social protection more effective. Such policies will improve skill matching and enhance productivity. To rebalance job protection, a standard contract with employment protection increasing with tenure was introduced in early 2015. This further limits the possibility of reinstatement of workers following unfair dismissal, excluding this possibility for dismissal for economic reasons (motivo oggettivo). These new arrangements imply quite radical changes for Italy. To avoid unwarranted disruption, they are applied only to new employment contracts ("grandfathering" existing rights). (…)	pg 53, 2015. pg. 16, 2017.	no	1
Spain	2013	procedural inconvenience, severance pay, collective dismissals	The 2012 labour market reform aims to reduce further the duality in the Spanish labour market, with a reform of employment protection legislation…: ● The law redefines the economic reasons for dismissal, further clarifying the conditions under which a dismissal for objective reasons could be justified. In this case, the employer pays 20 days' wages of severance pay per year of seniority. ● If a dismissal is judged unjustified, the maximum severance pay is reduced to 33 days' wages per year of seniority up to a maximum of 24 months, compared with 45 days and a maximum of 42 months on the regular permanent contract before. This applies to all new contracts and for future years of service on existing contracts. ● The law eliminates the need for administrative authorisation of collective dismissal, in line with current regulations in most European countries.	…these reforms are a substantial step in the right direction... A potentially important part of the reform is clarifying what justified dismissal means... (pg. 34, 2012)	pg. 40, 92, 2014	yes for 2013	1

			● While it removes the option of express dismissal, according to which firms could declare the dismissal upfront as being "unjustified" and pay 45 days' wages per year of seniority to avoid litigation, firms no longer are obliged to pay interim wages during the period the case is adjudicated. ● The law introduces a new type of permanent contract for companies with fewer than 50 employees. Hiring on this new contract is subject to an extended trial period of one year, compared with a previous maximum of six months, and various tax credits. (pg. 98, 2012)				

Table B2. Employment Protection Legislation, Temporary Workers

No new reform post-2013

Table B3. Unemployment Benefit Systems, Replacement Rate and Duration

Country	Year	Content	Normative language	Mention in other reports	Large change in OECD indicator	reform /counter-reform: overall	reform /counter-reform: replacement rate	reform /counter-reform: benefit duration
Australia	2014	Mandatory work experience for certain jobseekers: the Work for the Dole programme started in July 2014 across 18 high-unemployment areas. The plan is for nationwide roll-out from July 2015. A six-month wage subsidy will be available to employers for taking on those participating in the programme (pg. 63, 2014).			Yes	1	1	
United States	2013	Current extensions of unemployment benefits are being gradually reduced in 2012 and are scheduled to expire altogether in 2013. (pg. 49, 2012)			Yes	1	0	1

Table B4. Product Market Regulation, Electricity Sector

No new reform post-2013

Table B5. Product Market Regulation, Gas Sector

	Year	Area	Content	Normative language	Mention in other reports	Large change in OECD indicator	reform /counter-reform
France	2016	Market access and structure	Regulated tariffs on the electricity and gas retail markets for major customers have been eliminated.			Yes	1

Table B6. Product Market Regulation, Telecommunications Sector

No new reform post-2013

Table B7. Product Market Regulation, Postal Services Sector

	Year	Area	Content	Normative language	Mention in other reports	Large change in OECD indicator	reform /counter-reform
Czech Republic	2013	Market access and structure	From January 2013 the monopoly held by the state enterprise Czech Post (CP) over deliveries of postal items that weigh up to 50 grams with stamps up to EUR 0.7 was removed. In the next five years, Czech Post will be the sole holder of the postal licence, responsible for the universal service obligation, after which the postal licence will be awarded by tender (pg. 81, 2014)			Yes in 2011	1

Table B8. Product Market Regulation, Rail Transport Sector

	Year	Area	Content	Normative language	Mention in other reports	Large change in OECD indicator	reform /counter-reform
Spain	2013	Market access and structure	Implemented by the end of 2012. Passenger rail services will be fully opened to market entrants in 2013. The incumbent operator has been split into 4 companies. (pg. 44, 2012) In September 2012, …approval of Royal Decree-Law 22/2012 (R.D-L), the act designed to implement new measures on infrastructure and railway services in Spain... [see http://www.oecd.org/daf/competition/Rail-transportation-Services-2013.pdf]	Passenger rail services will be fully opened to market entrants in 2013.		No	1

Table B9. Product Market Regulation, Air Transport Sector

No new reform post-2013

Table B10. Product Market Regulation, Road Transport Sector

No new reform post-2013