CESifo WORKING PAPERS

11199
2024

June 2024

Labour Market Counter-Reforms in OECD Countries: Conditional Impact on Output and Employment Growth

Rasmus Wiese, João Tovar Jalles, Jakob de Haan

CESifo

Impressum:

CESifo Working Papers
ISSN 2364-1428 (electronic version)
Publisher and distributor: Munich Society for the Promotion of Economic Research - CESifo GmbH
The international platform of Ludwigs-Maximilians University's Center for Economic Studies and the ifo Institute
Poschingerstr. 5, 81679 Munich, Germany
Telephone +49 (0)89 2180-2740, Telefax +49 (0)89 2180-17845, email office@cesifo.de
Editor: Clemens Fuest
https://www.cesifo.org/en/wp
An electronic version of the paper may be downloaded
· from the SSRN website: www.SSRN.com
· from the RePEc website: www.RePEc.org
· from the CESifo website: https://www.cesifo.org/en/wp

CESifo *Working Paper No. 11199*

Labour Market Counter-Reforms in OECD Countries: Conditional Impact on Output and Employment Growth

Abstract

This paper empirically examines the impact of labour market counter-reforms on real GDP per capita and employment growth in 25 OECD countries between 1973 and 2012. We use a novel, narrative-based dataset of reform indicators and apply the local projections approach. We consider not only aggregated labour market counter-reforms but also distinguish between employment protection legislation (EPL), which we further split into counter-reforms for regular and temporary workers, and unemployment benefits (UB) counter-reforms. The effects of counter-reforms depend on the prevailing economic conditions and are not uniform across different types of counter-reforms.

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

Keywords: labour market counter-reforms, output growth, employment, local projections, nonlinearities.

Rasmus Wiese
Faculty of Economics and Business
University of Groningen / The Netherlands
r.h.t.wiese@rug.nl

Joåo Tovar Jalles
ISEG, Lisbon School of Economics and Management, University of Lisbon / Portugal
joaojalles@gmail.com

Jakob de Haan
Faculty of Economics and Business
University of Groningen / The Netherlands
jakob.de.haan@rug.nl

Version, 25 June 2024
This work was supported by the FCT (*Fundação para a Ciência e a Tecnologia*) [grant number UIDB/05069/2020]. We like to thank participants in the 10th UECE Conference in June 2022 in Lisbon for their feedback. The opinions expressed herein are those of the authors and do not necessarily reflect those of the authors' employers. Any remaining errors are the authors' sole responsibility.

1. Introduction

Understanding the dynamics and consequences of counter-reforms is crucial for policymakers and international organizations working to support economic transitions and general economic development. For instance, in the model of Galiani et al. (2017), a benevolent but politically myopic international organization may reduce social welfare because it does not take the fact into account that an overly aggressive structural reform could trigger costly reversals that outweigh the benefits of the reform. [1] Counter-reforms have received limited attention in recent empirical research even though they occur frequently. The primary focus has been on the design, implementation, and impact of reforms.[2] But there are exceptions. For instance, Campos and Horváth (2012) examine factors driving the probability of reform reversals in a sample of 25 Central and Eastern European countries.

This paper examines the impact of labour market counter-reforms on real GDP per capita and employment growth for a balanced sample of 25 OECD countries between 1973-2012. More specifically, we consider measures making it more difficult to hire and dismiss workers and to decrease the ability of and incentives for the non-employed to find jobs. We use a narrative-based dataset of counter-reform indicators put together by Duval et al. (2018) and updates thereof as provided by Wiese et al. (2024). We employ the local projections (LP) approach (Jordà, 2005) which has been widely used to analyze the dynamic effects of policy shocks (Jordà and Taylor, 2016; de Haan and Wiese, 2022; Hülsewig and Rottmann, 2023). LP is a flexible alternative to vector autoregression models since it does not impose dynamic restrictions. To alleviate the bias caused by overlapping forecast horizons, we follow Teulings and Zubanov (2014) and include the leads of the counter-reform dummies in our models. We also test whether the counter-reforms have similar dynamic effects across countries, using a test recently proposed by Canova (2024).

Previous literature suggests that labour market reforms may have different effects in recessions compared to normal times. For instance, when it comes to job protection legislation, since more jobs are unprofitable during recessions, firms are more likely to respond to reform

[1] Structural reforms refer to a broad range of measures aimed at altering the fundamental economic, institutional, and regulatory frameworks within which businesses and individuals operate. These reforms are designed to enhance the economy's efficiency, productivity, and growth potential in a balanced manner. They target various aspects of the economy, including labour markets, tax systems, and regulatory environments, to remove obstacles to efficient and equitable production of goods and services. This can involve making labour markets more flexible, simplifying tax codes, reducing bureaucratic red tape, and encouraging innovation in key industries (Da Silva et al., 2017).

[2] For some recent contributions, see e.g. Duval and Furceri (2018) and de Haan and Wiese (2022).

by firing employees (Bentolila and Bertola, 1990). Likewise, the effect of reducing unemployment benefits may be weaker in recessions (Jung and Kuester, 2015). There is indeed some evidence that the effects of structural reforms are dependent on prevailing business conditions at the time of the reform. For instance, Duval et al. (2018; 2020) report evidence that the short-term effects of job protection deregulation are positive in an expansion, but become negative in a recession. The impact of counter-reforms may also be conditioned by prevailing macroeconomic conditions at the time of the counter-reform. We explore the role of macroeconomic conditions using the smooth transition function proposed by Auerbach and Gorodnichenko (2012). Although state dependent local projections have been used extensively, Gonçalves et al. (2024) show that when the state depends on the macroeconomic shock, LPs only recover the conditional response to a small shock, but not the responses to larger shocks. However, in view of the low correlation between the shocks and the state in our data, our results are unlikely to be affected by this potential bias.

Our results suggest that the effects of labour market counter-reforms depend on the prevailing economic conditions and are not uniform across different types of counter-reforms. More specifically, labour market counter-reforms reduce real GDP per capita growth if introduced when the output gap is positive, while employment growth is not significantly affected. Counter-reforms can be split into employment protection legislation (EPL) and unemployment benefits (UB) counter-reforms. We find that the impact of both types of reform on real GDP per capita growth is negative if output is above its trend. However, the effect of EPL counter-reforms on real GDP per capita growth per capita is larger than that of UB counter-reforms. Finally, the effect of EPL counter-reforms on employment growth differ between regular and temporary workers. During an economic boom, the first type of counter-reform reduce employment growth, while the second type increases employment growth.

The remainder of the paper is structured as follows. Section 2 reviews the literature on counter-reforms, while section 3 discusses the data used. Section 4 outlines our methodology, while section 5 presents our main empirical findings. Section 6 offers a robustness analysis, while section 7 concludes and elaborates on policy implications.

2. Literature Review

Most research focuses on the drivers of reform (see Rodrik (1996) for a review), but some studies have examined the drivers of policy reversals.

Fernandez and Rodrik (1991) examine the conditions that can trigger counter-reforms, highlighting the role of uncertainty and risk aversion. Alesina and Drazen (1991) argue that shifts in government ideology, public sentiment, and pressure from powerful interest groups can influence the decision to reverse economic reforms. For example, if a new government comes into power with different policy priorities or ideological beliefs, it may choose to undo previous reforms. Drazen and Easterly (2001) examine the conventional wisdom that economic crises precipitate reforms, with a focus on the conditions under which reforms are sustained or reversed. The authors analyze how political shifts and policy volatility can influence the trajectory of economic reforms and their impact on economic stability and investor confidence.

Focusing on transition economies, Roland and Verdier (2000) examine the dynamics of reform reversals. They highlight that these countries often experience abrupt policy shifts due to political instability, power struggles, and the presence of vested interests seeking to protect their privileges. Campos and Horváth (2012), who also analyze reform reversals in transition countries, pose that reversals in different types of reforms are driven by different factors. The authors show that (a) FDI inflows reduced the likelihood of privatization reversals, (b) worsened terms of trade increased the probability of external liberalization reversals and (c) labour strikes propelled reversals in the liberalization of wages and prices.

Other papers focus on the (potential) consequences of counter-reforms. To start with, reform reversals can create uncertainty about the future policy direction, which may have a negative impact on growth. The uncertainty introduced by reform reversals can deter both domestic and foreign investors, as they become hesitant to commit capital in an environment where policy volatility prevails (Rodrik, 2008). The impact of uncertainty on investment dynamics and productivity has been explored by Bloom et al. (2007).

Furthermore, reversing reforms sends negative signals to investors about the stability and attractiveness of the investment climate which can lead to reduced FDI and portfolio outflows (Alesina and Drazen, 1991). Labour market institutions are crucial in determining the location of economic activity, not least if they influence the flexibility with which firms can adjust output scale and employment levels to evolving economic conditions. Notably EPL has been identified

as a major source of inflexibility since high hiring and firing costs undermine firms' ability to adapt to fast-changing competitive markets (DeWit et al., 2013).[3]

Additionally, governments may shift their public investment priorities away from infrastructure and development projects toward other areas due to reform reversals, impacting overall economic infrastructure (Dabla-Norris et al., 2015). Relatedly, while reversing reforms may protect existing jobs, it can reduce firms' ability to adapt to changing market conditions, potentially stifling economic dynamism.

Labour market counter-reforms, or de-liberalizations, can introduce rigidity back into the system, leading to mismatches where workers may not be employed in roles that fully utilize their skills, thus negatively affecting productivity. This is supported by research from Boeri and van Ours (2013) and Autor et al. (2007), which highlights the importance of labour market flexibility for the efficient allocation of labour and its impact on growth. Furthermore, the flexibility of the labour market is known to encourage investments in skills and training, rewarding such investments with higher wages and better job opportunities. Counter-reforms can diminish these incentives, potentially leading to a decline in the workforce's skill level over time and, consequently, a reduction in economic growth (Bassanini and Ernst, 2002; Acemoglu and Autor, 2011). Counter-reforms that increase rigidity can hinder firms' ability to adjust their workforce for new technologies or innovative processes (Aghion et al., 2009; Griffith et al., 2004). Labour market counter-reforms can also increase labour costs due to heightened protections or regulations, reducing firms' competitiveness both domestically and internationally. This reduction in competitiveness can result in lower levels of investment in productivity-enhancing technologies and processes, as discussed by Nickell (1997) and Scarpetta and Tressel (2004).

Lastly, labour market counter-reforms can have ambiguous effects on (un)employment because they often increase labour market rigidity, yet provide enhanced job security. These reversals, such as reinstating strict EPL or expanding unemployment benefits, aim to protect workers from abrupt job loss but can simultaneously discourage hiring. For instance, reinstating high firing costs and strict EPL could secure current employment but may also reduce

[3] See DeWit et al. (2013) for a further discussion of the literature on the the effects of employment protection on the location decision of multinational corporations. These authors argue that labour market inflexibility may not necessarily hinder a country's ability to attract and/or retain economic activity as "employment protection is a source of inflexibility and firms have market power (as is likely to be the case for most multinational firms, which are typically larger than other firms), then employment protection can also plausibly be a source of commitment." (p. 442). DeWit et al. (2019) examine whether strict EPL affects firms' relocation and find that for high- and low-tech manufacturing sectors stricter employment protection in the home country discourages firms' relocation, while labour-intensive firms in low-skill manufacturing and large, highly productive firms in high-skill manufacturing have higher propensities to relocate.

employers' willingness to hire, fearing long-term labour costs and inflexibility, thus potentially raising unemployment, particularly for younger or less-experienced workers (Blanchard and Portugal, 2001).[4] Furthermore, several countries face a dual labour market as there is a large discrepancy between the protection of employees with fixed and temporary contracts. Workers who have been employed long enough benefit from high employment protection, whereas those just hired enjoy virtually none. This creates a 'revolving door' through which workers without a fixed contract rotate between short-term employment and unemployment (Dolado et al., 2021).

Expanding unemployment benefits may temporarily cushion income loss, yet prolonged or overly generous benefits could reduce job-search motivation, leading to longer unemployment spells (Krueger and Meyer, 2002). However, counter-reforms may stabilize aggregate demand by maintaining consumer confidence and household spending, which can mitigate unemployment rises in economic downturns (Auerbach and Gorodnichenko, 2012). Empirically, counter-reforms that decrease labour market flexibility could lead to higher unemployment in the short term (Blanchard and Giavazzi, 2003; OECD, 2019). Thus, the overall effect of labour market counter-reforms on (un)employment heavily depends on economic conditions and the design of the reversals.

3. Data and Stylized Facts

The dependent variables used in the empirical analysis are the growth rates of real GDP per capita and employment (as share of total population). Data come from the Penn World Tables (PWT) version 10.1. The dependent variable denotes the cumulative real GDP per capita growth (or employment growth) projected stepwise forward in time (with annual frequency), so 0 to 1, 0 to 2 etc., until 0 to 7 years. The cumulative output growth rates are calculated based on real GDP (log differences of real GDP in PPP, 2011 US$, divided by population size). The cumulative growth of employment is calculated as the growth rate of employment divided by the population.

Labour market counter-reforms are taken from the database of Duval et al. (2018) which has been updated until 2020 by Wiese et al. (2024), using documented legislative and regulatory

[4] However, Näf et al. (2022) document that countries with stricter EPL legislation tend to display larger fluctuations in job-creation relative to job-destruction flows. Hunt (2000) examines the reduction in firing costs in Germany on movements in employment and finds that employment adjustment was unaffected by the lower firing costs.

actions reported in all available *OECD Economic Surveys* for 25 advanced economies, as well as additional country-specific sources.[5] Labour market counter-reforms can be split into employment protection legislation (EPL) counter-reforms and unemployment benefits (UB) counter-reforms.[6] The former capture policies making it harder to fire employees (with a temporary or fixed contract), while the latter capture increases in the level of unemployment benefits (duration or size). The reform database has several advantages as it identifies: the precise nature and exact timing of major legislative and regulatory actions in key labour market policy areas and the precise counter-reforms that underpin what otherwise looks like a gradual increase in OECD policy indicators without any obvious or noticeable break. Furthermore, the database captures counter-reforms in areas for which OECD indicators exist but do not cover all relevant policy dimensions and 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) and Wiese et al. (2024) allows identifying a rather limited set of major legislative and regulatory counter-reforms, as opposed to 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 seek to identify, and then estimate, the dynamic effects of counter-reform shocks.

Table 1 presents stylized facts on reforms—that is, decreases in regulation—and counter-reforms—that is, increases in regulation. The latter account for around 30% of total shocks in the labour market.

To validate our narrative (counter-)reform database, Table 2 shows the average yearly change in the OECD index for the strictness of EPL and the generosity of UB. The former is split into regular and temporary employment. Years with no shocks in our narrative reform indicator are not associated with any statistically significant change in the underlying OECD strictness or generosity indicators. Clearly reforms are associated with a decline in strictness of EPL or generosity of UB, whereas counter reforms are associated with an increase in strictness and generosity.

Figure A1 in the online Appendix provides country-specific details on labour market reforms together with our key dependent variables of interest (growth of real GDP per capita

[5] The 25 countries are displayed in Figure A1 in the online Appendix.
[6] Employment protection legislation reforms can futher be split into reforms for regular contracts and temporary contacts.

and the growth of employment as share of the population growth). Table A1 in the Appendix provides summary statistics for all data used.

Table 1. Number of reforms by category (25 advanced economies, 1970-2012)

Reform type	Number of reforms	Number of counter reforms	Reforms (% of total shocks)	Counter-reforms (% of total shocks)
Labour market reforms	83	41	66.9%	33.1%
Employment protection legislation (EPL) reforms, regular and temporary workers	57	22	71.3%	28.7
Employment protection legislation for regular workers (EPL_r) reforms	28	14	66.6%	33.3%
Employment protection legislation for temporary workers (EPL_t) reforms	37	10	78.7%	21.3%
Unemployment benefit (UB) reforms	26	18	59.1%	40.9

Note: The total number of observations is 974 (based on the 7-year forecast estmation sample).
Source: Wiese et al. (2024).

Table 2. Average change in the EPL strictness or UB generosity index from the OECD and narrative (counter-)reforms

Reform type	(1) EPL temporary contracts strictness index	(2) EPL regular contracts strictness index	(3) UB generosity index
No reform	-0.009	-0.005*	0.001
	(0.008)	(0.003)	(0.001)
Reform	-0.509***	-0.145***	-0.029***
	(0.033)	(0.015)	(0.008)
Counter reform	0.236***	0.167***	0.086***
	(0.060)	(0.026)	(0.010)
Observations	614	614	896

Notes: Standard errors in parentheses: *** p<0.01, ** p<0.05, * p<0.1, indicate if the average change in the OECD index is different from zero. Based on OECD strictness and generosity index data availability in our 7-year forecast estmation sample. The EPL strictness index can take values between 0 and 6, where higher values indicate less flexible firing and hiring conditions. The UB generosity index is bounded between 0 and 1, where higher values indicate more generous unemployment benefits (duration and size). Both come from OECD.org.

4. Methodology

Counter-reforms tend to have evolving effects over an extended period of time, which can be linear, but also non-linear if the effect depends on the stance of the business cycle at the time when they are introduced. Therefore, we estimate impulse response functions (IRFs) by applying Jordà´s (2005) LP method.[7] LPs are a flexible alternative to VARs, as they are not

[7] Montiel Olea et al. (2024) provide a formal proof of the claim in Jordà (2005) that conventional LP confidence intervals for impulse responses are robust to misspecification.

subject to dynamic restrictions. They also allow modelling non-linearities using smooth transition functions as will be explained below. The LP approach uses OLS to directly estimate the IRFs at each forecast horizons by only changing the forecast for the outcome variable on the left-hand side of the regression equation, while the right-hand side remains identical for each forecast horizon, except for one important aspect as explained below. This is in contrast to a VAR where the IRFs are based on forward iterations from an underlying system of equations model. We follow the recommendations of Herbst and Johannesen (2024) and include lags of the dependent and independent variables in our dynamic two-way fixed-effect panel data model. The Jordà method simply requires estimation of a series of regressions for each horizon, *h*, and for each dependent variable of interest (in our case real GDP per capita growth and the growth in employment as share of the population). The basic linear LP regression model that we estimate is:

$$\Delta \log y_{i,t+h} = \alpha_{i,h} + \delta_{t,h} + \sum_{j=0}^{5} \beta_{j,h} d_{i,t-j} + \sum_{l=0}^{4} \beta_{l,h} \left(log y_{i,t-l} - log y_{i,t-1-l} \right) + \sum_{h=1}^{h} \beta_h d_{i,t+h} + \sum_{c=0}^{1} \beta'_{c,h} X_{i,t-c} + u_{i,t+h} \quad (1)$$

where h=1…,7 is the forecast horizon, and $\Delta \log y_{i,t+h} = \log y_{i,t+h} - \log y_{i,t}$ denotes the cumulative growth rates of the dependent variables over the forecast horizon. $y_{i,t}$ is either real GDP per capita or employment as share of the total population. α_i denotes country fixed-effects to capture unobserved heterogeneity across countries, such as time-invariant institutional variables, while δ_t are time fixed-effects to control for global shocks such as the great recession.[8] $d_{i,t}$ denote the counter-reform dummies capturing our externally identified shocks to labour market regulation. The dummy either captures counter reforms in regulation for EPL and UB together, or counter-reforms in each type of regulation. Therefore, $\beta_{j=0,h}$ measures the conditional mean of shocks to labour market regulation for each forecast horizon h on $\Delta \log y_{i,t+h}$, and is used to construct the IRFs and their associated confidence interval. To avoid attrition and aid comparability of results across different forecast horizons we fix the sample at the data that is available at the longest forecast horizon (h=7).[9] That way we have 974 observations for all regressions.

[8] As Canova (2024) points out, time fixed-effects are crucial for proper identification in LP models. Without time fixed-effects, LP cannot destinguish between global shocks that may affect GDP or employment growth, and local shocks, such as shocks to labour market institutions, that may also affect GDP and employment growth.

[9] In practice, this almost balances our panel. We have 39 observations per country when h=7, except for Poland for which we have 38 observations. With 25 countries in our sample, this amounts to 974 observations.

Treatment lags are included to capture the effect that previous shocks may have on the outcome variable. We use the Bayesian information criterion (BIC) to determine the lag length which tells us to use 4 lags of the treatment variable. We also include yearly lags of $\Delta \log y_{i,t}$ to control for serial correlation in the error term, $u_{i,t+h}$. The number of lags (5) is determined by the BIC. The data is stationary as $\left|\sum_{l=0}^{4} \beta_{l,h}\right| < 1$ in all our specifications when h=1.[10] In fact, $\sum_{l=0}^{4} \beta_{l,h}$ is less than 0.5 for all combinations of the dependent variables when h=1, which means that the persistence in the estimated models is low. Therefore, the estimated IRFs from the LPs are unlikely to be severely affected by the bias that can result from a relatively short time dimension, t=39, if combined with a situation of high persistence, as shown by Herbst and Johanssen (2024).[11]

The term $\sum_{h=1}^{h} \beta_h d_{i,t+h}$ captures the Teulings and Zubanov (2014) correction. Leads of the counter-reforms are included to avoid the bias that results from overlapping forecast horizons.[12] In addition, we also include the leads of regular labour market reforms to avoid the bias they may cause if the regular reforms are in the forecast horizon for our model for counter-reforms and have an opposite effect on the outcome. The leads of the reforms and counter-reforms are statistically significant for most combinations of $y_{i,t}$ and h, signifying the need to control for overlapping forecast horizons. $X_{i,t}$ is a vector of additional control variables. $X_{i,t}$ contains the contemporaneous value and the first lag of the change in physical capital (gross investments relative to GDP) and the percentage change from year to year in the human capital index from PWT 10.1. These Solow variables matter for output and employment growth as they control for the impact of changes in the physical and human capital stock on $\Delta \log y_{i,t+h}$.

LP estimates may be biased if counter-reforms are driven by some particular variable. This can be explained as follows. In an ideal setting, treatments are assigned randomly. In other words, the probability density function for each control variable included in equation (1) should be similar for each sub-sample of counter-reforms and no counter-reforms. A simple way to check whether this condition holds is to do a test of equality of means of the covariates between the subsamples. The results of these so-called balance tests are shown in Table A2 in the Appendix. The balancing tests do not detect counter-reform selection. One covariate is

[10] This finding is confirmed using Fisher-type panel stationarity tests which are available on request.
[11] We confirm this prediction in a roubstness test, see section 5.
[12] The bias increases with the forecast horizon, see Teulings and Zubanov (2014). The leads of the counter-reform dummies ensure that it is registered in the data if the outcome for a specific observation is affected by a counter-reform ahead in time. This most often is the case for country-year pairs where no counter-reform took place. However, counter-reforms may occur repeatedly within our forecast horizon of 7 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 counter-reforms.

significant at the 5% level for unemployment benefits counter-reforms, but this is not enough to indicate reform selection bias, as it may be the result of a type I error. So, there is no need to use more complicated treatment-selection estimators.

In all our LPs, both linear and non-linear (see below), we use Spatial Correlation Consistent (SCC) standard errors as proposed by Driscoll and Kraay (1998). We test whether spatial dependence is present in the disturbances between the cross-sectional units when using standard errors clustered at the country level as often applied in the LP literature. For this purpose, we use the Pesaran (2015) test, which is standard normally distributed. A value of the test statistic outside the [-1.96, 1.96] interval rejects the null hypothesis of weak cross-sectional dependence in favor of cross-sectional dependence. The test is often significant.[13]

Canova (2024) suggests a test to determine if the panel (repeated cross-sections) LP estimator displays dynamic heterogeneity. The test is based on calculating the coefficient of variation (CV) of the impact of interest to detect deviations from homogeneity. Intuitively this is done by estimating the effect for each h, country-by-country using the time series variation. The effects of those unit specific estimates are used to calculate the CV, i.e., the standard error of the average effect of the country-by-country time series estimates, divided by the average effect. Under homogeneity, the estimated distribution for each h is concentrated around a central value, and the estimated CV will be small (zero in theory). If that is the case, cross-sectional methods display dynamic homogeneity. Under heterogeneity, the estimated distribution will be spread out and the CV will be large. To assess whether the dispersion of the distribution of the cross-sectional estimates is large, critical values are constructed for each *h* based on the bootstrap procedure as in Canova (2024). Under the null of homogeneity, the absolute value of the CV should not be outside the critical values. We use T=40 for each forecast horizon (since we have a balanced panel) with a significance level of 5%. The critical values are reported in Table A3 in the Appendix.[14]

We also examine whether the impact of labour market counter-reforms depends on the business cycle. As discussed in Auerbach and Gorodnichenko (2012), the LP approach to estimating non-linear effects is equivalent to the smooth transition autoregressive (STAR) model developed by Granger and Teräsvirta (1993).[15]

[13] Results are available on request. The SSC standard errors are also cluster robust in addition to being robust to spatial correlation, see Driscoll and Kraay (1998).

[14] Canova (2024) shows that when the dynamic evolution of individual cross-sections is not homogeneous, LP panel estimates can be biased.

[15] The advantage of this approach is twofold. First, compared with a model in which each dependent variable would be interacted with a measure of the business cycle position, it permits a direct test of whether the effect of counter-reform varies across different regimes such as recessions and expansions. Second, compared with

More specifically, we estimate:

$$\Delta \log y_{i,t+h} = \alpha_{i,h} + \delta_{t,h} + \sum_{j=0}^{5} \beta_{j,h}^{L} F(z_{i,t}) d_{i,t-j} + \sum_{j=0}^{5} \beta_{j,h}^{H} F(1-(z_{i,t})) d_{i,t-j} +$$

$$\sum_{l=0}^{4} \beta_{l,h} \left(log y_{i,t-l} - log y_{i,t-1-l} \right) + \sum_{h=1}^{h} \beta_h d_{i,t+h} + \sum_{c=0}^{1} \beta'_{c,h} X_{i,t-c} + u_{i,t+h} \quad (2)$$

where,

$$F(z_{it}) = \frac{\exp(-\gamma z_{it})}{1+\exp(-\gamma z_{it})}, \quad \gamma > 0$$

with z_{it} being an indicator of the business cycle stance (the output gap is calculated using the Hamilton (2018) filter on real GDP) normalized to have zero mean and unit variance. The weights assigned to each regime vary between 0 and 1 according to the weighting function $F(.)$, so that $F(z_{it})$ can be interpreted as the probability of being in a given state of the economy, boom or slack, i.e., when the economy is running above or below its long-run trend. The coefficients $\beta_{j=0,h}^{L}$ and $\beta_{j=0,h}^{H}$ are used to construct the IRFs and the associated confidence interval for counter-reforms introduced during a period of boom or slack. They respectively capture the impact of counter-reforms at each horizon *h* in cases of slack ($F(z_{it})$≈1 when z goes to minus infinity) and booms (1-$F(z_{it})$)≈1 when z goes to plus infinity). We choose γ=1.5, following Auerbach and Gorodnichenko (2012), so that the economy spends about 20 percent of the time in a recessionary regime—defined as $F(z_{it})$>0.8—close to the typical business cycle pattern of many advanced economies (see Figure A3 in the Appendix).

State dependent LPs (whether smooth transition or not) have been used extensively (e.g., Alpanda et al., 2021; de Haan and Wiese, 2022; Ortsman and Tripier, 2021; and Ramey and Zubairy, 2018). Plagborg-Møller and Wolf (2020) show that in a linear framework, LPs and VAR models estimate the same IRFs. In our state-dependent context, the local projection methodology offers two key advantages over VARs. First, LPs provide a simple way to account for state-dependence, especially in a panel framework. Second, unlike regime-switching VARs, they do not require one to take a stand on the duration of a given state or on the mechanism triggering the transition between states.

One important caveat is that the state should be uncorrelated with the macroeconomic shock. As Gonçalves et al. (2024) show, when the state is exogenous, the LP estimates recover

estimating structural vector autoregressions for each regime, it allows the effect of counter-reforms to change smoothly between recessions and expansions by considering a continuum of states to compute the impulse response functions, thus making the response more stable and precise.

the population response regardless of the size of the shock. However, when the state depends on the macroeconomic shock, the LPs only recover the conditional response to a small shock, but not the response to larger shocks. Table A4 in the Appendix presents the unconditional correlation coefficients between counter-reforms and the output gap as used in eq. (2) for our estimation sample. As Table A4 shows, the correlation is very low and statistically insignificant. So, we conclude that our results when estimating eq. (2) are unlikely to be affected by potential bias due to a high correlation between the shocks and the state.

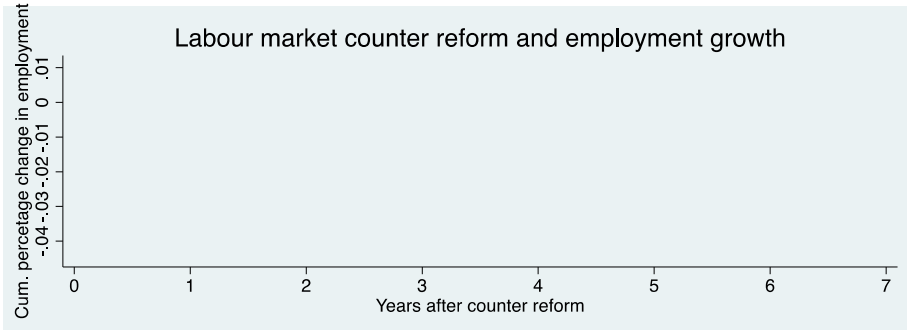
4. Empirical Results

4.1 The basic linear LP approach

Figure 1 shows the IRF of the LP estimates for the effects of labour market counter-reforms on real GDP per capita and employment growth rates. The graphs show the effects of all labour market counter-reforms (detailed estimation results for growth are in Table A5, while those for employment growth are in Table A6). The results suggest that labour market counter-reforms have a negative but statistically insignificant impact on real GDP per capita growth as well as employment growth. This may reflect several underlying dynamics within the economy. For instance, the consequences of labour market policies, including counter-reforms, may take time to become evident in GDP growth (Blanchard and Summers, 1986). Additionally, there may be counterbalancing forces, such as fiscal policy (Alesina and Perotti, 1997), or the economic impact of shocks can be unevenly distributed across different parts of the economy, which, in turn, can lead to a neutral overall effect on national economic indicators in the short term (Autor et al., 2013). Employment growth seems to drop following labour market counter-reforms in the medium term, but again the effect is hardly significant.

However, as the last row in Table A6 shows, the Canova test indicates dynamic heterogeneity across cross-sections. This may reflect that countries introduced different types of labour market counter-reforms. As the next step, we therefore distinguish between different types of counter-reforms: counter reforms in unemployment benefits and employment protection legislation, where we for the latter distinguish between protection of employees with temporary or fixed contracts. Figure 2 shows the IRFs for UB and EPL counter-reforms (Tables A7 to A10 show the underlying regressions) on economic growth, while Figure 4 shows the IRFs for employment growth (Tables A11 to A14 present the model estimates).

Figure 1. Impulse responses based on local projections of labour market counter-reforms on real GDP per capita growth and employment growth



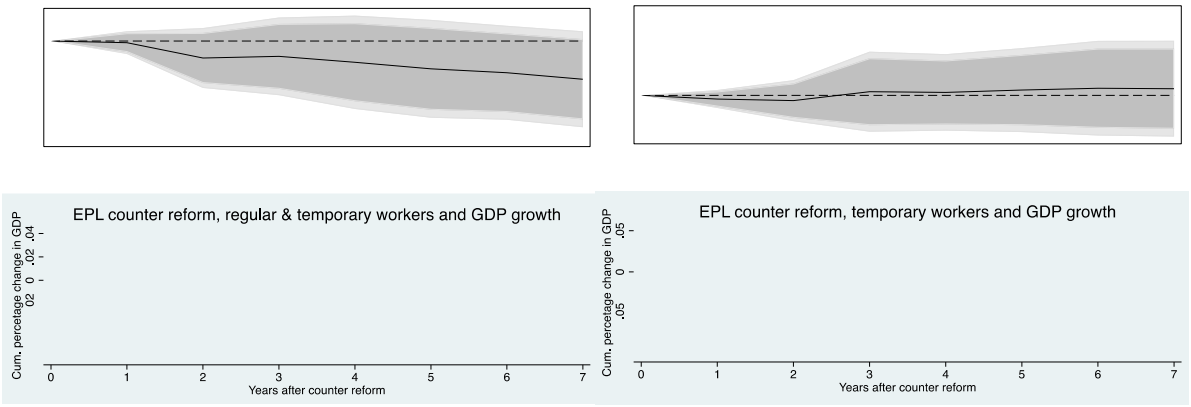
Notes: The solid black lines in the figure plots the impulse responses of labour market counter-reforms on our dependent variables. Year=1 is the first year after a counter-reform took place at year=0. So, the position of the line at e.g., year=7 shows the change in real GDP growth per capita 7 years after the counter-reform. The dark grey shaded areas display the 90% SCC error bands; the light grey shaded areas display the 95% SCC error bands. The underlying regressions are shown in Tables A5 and A6 in the Appendix.

Again, we find no clear evidence (statistically speaking) that counter-reforms have an impact on growth (but note that the Canova tests suggest dynamic heterogeneity). Figure 3 suggests that counter-reforms in the area of unemployment benefits reduce unemployment growth (statistically significant from year 6 onwards), but again there are indications of lack of dynamic homogeneity. Why could UB counter-reforms reduce unemployment growth? Economic theory suggests that altering unemployment benefits can significantly impact the incentives for job-seeking among the unemployed. For instance, more generous benefits may reduce the urgency for unemployed individuals to find new work, potentially extending unemployment durations (cf. Meyer, 1990; Krueger and Meyer, 2002). Moreover, increasing unemployment benefits can change the relative attractiveness of employment causing some individuals to (temporarily) exit the labour force. The implications of changes in unemployment benefits extend to wage negotiations and employment costs as well. If unemployment benefits establish a higher baseline for income during unemployment periods, workers may demand higher wages to incentivize their return to work. This dynamic can lead to increased labour costs for employers, who might then adjust their hiring practices accordingly, potentially

dampening employment growth (Layard et al., 1991). The resultant increased cost of employment could make firms more cautious in their hiring, slowing down employment expansion (Blanchard and Portugal, 2001). Finally, the effects of changes in unemployment benefits on employment growth may not be uniform across all sectors and regions (Autor et al., 2006).

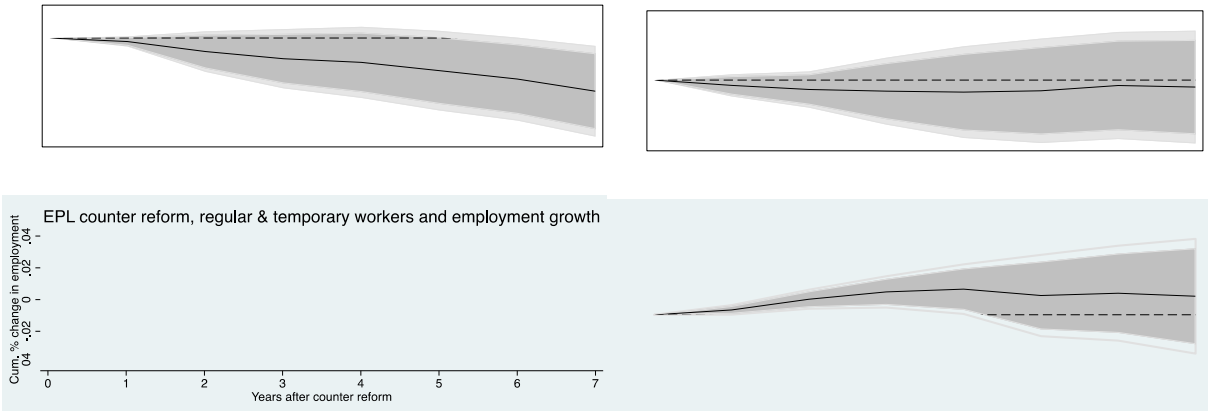
The effects of EPL counter-reforms seem to differ between regular and temporary workers. Notably, the last type of counter-reform has a positive and statistically significant effect on employment growth from the time of the reform reversal until up to 4 years ahead.. This can occur because the increased difficulty of hiring and firing regular workers may lead firms to rely more on temporary workers, who can be hired flexibly and let go more easily under the terms of such counter-reforms. Note that the Canova test now frequently cannot reject the null of dynamic homogeneity across countries.

Figure 2. Impulse responses based on local projections of unemployment benefits and employment protection legislation counter-reforms on real GDP per capita growth



Notes: The solid black lines in the figure plots the impulse responses of labour market counter-reforms on our dependent variables. Year=1 is the first year after a counter-reform took place at year=0. So, the position of the line at e.g., year=7 shows the change in real GDP growth per capita 7 years after the counter-reform. The dark grey shaded areas display the 90% SCC error bands; the light grey shaded areas display the 95% SCC error bands. The underlying regressions are shown in Tables A7 to A10 in the Appendix.

Figure 3. Impulse responses based on local projections of unemployment benefits and employment protection legislation counter-reforms on employment growth



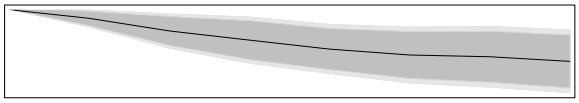
Notes: The solid black lines in the figure plots the impulse responses of labour market counter-reforms on our dependent variables. Year=1 is the first year after a counter-reform took place at year=0. So, the position of the line at e.g., year=7 shows the change in employment growth as share of the population 7 years after the counter-reform. The dark grey shaded areas display the 90% SCC error bands; the light grey shaded areas display the 95% SCC error bands. The underlying regressions are shown in Tables A11 to A14 in the Appendix.

As a next step, we examine whether business cycle conditions affect the impact of labour market counter-reforms and whether taking the economic situation into account reduces the problem of dynamic heterogeneity across countries.

4.2 Smooth transition LP approach

Figures 4 and 5 present the impulse responses when we take the business cycle position into account in analyzing the impact of labour market counter-reforms on real GDP per capita growth and employment growth, respectively, employing the smooth transition approach. The results are very different compared to those based on the simple LP approach in which the prevailing business conditions at the time of the counter-reform are ignored. Furthermore, although the Canova test is not always indicating dynamic homogeneity, the null cannot be rejected much more frequently compared to our models in which we did not condition for the state of the economy.

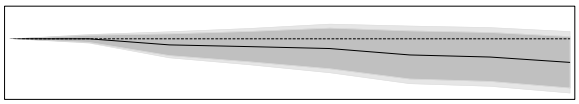
Figure 4. Impulse responses based on smooth transition approach of labour market counter-reforms on real GDP growth per capita conditional on the business cycle

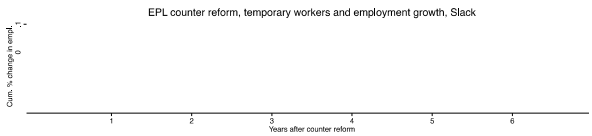


and GDP growth, Slack

Notes: The solid black lines in the figure plots the impulse responses of labour market counter-reforms on real GDP per capita growth. The dark grey shaded areas display the 90% SCC error bands; the light grey shaded areas display the 95% SCC error bands. The panels in the left part show projections for country-years when the economy is running above the trend, while the panels in the right part show country-years when the economy is running below the trend based on the output gap; the trend is based on the Hamilton (2018) filter. There are 972 observations in each regression as we lose two more observations for Poland. The underlying regressions are shown in Tables A15 to A19 in the Appendix.

Figure 5. Impulse responses based on smooth transition approach of labour market counter-reforms on employment growth conditional on the business cycle





Notes: The solid black lines in the figure plots the impulse responses of labour market counter-reforms on employment growth. The dark grey shaded areas display the 90% SCC error bands; the light grey shaded areas display the 95% SCC error bands. The panels in the left part show projections for country-years when the economy is running above the trend, while the panels in the right part show country-years when the economy is running below the trend based on the output gap; the trend is based on the Hamilton (2018) filter. There are 972 observations in each regression as we lose two more observations for Poland. The underlying regressions are shown in Tables A20 to A24 in the Appendix.

More specifically, our results suggest that labour market counter-reforms reduce real GDP per capita growth when introduced when the output gap is positive. In contrast, the cumulative effect of counter-reforms on output growth under slack is insignificant most of the time. The effects on employment growth of labour market counter-reforms are mostly insignificant under both a boom and under slack.

If the economy is already operating at or above its potential additional rigidities or protections introduced by labour market counter-reforms could exacerbate inefficiencies, limiting labour market flexibility, and hindering the economy's ability to adapt to shifting demand dynamics. This, in turn, could slow down economic growth and employment expansion by imposing higher costs and constraints on businesses. Conversely, when the economy is underperforming (negative output gap), our findings suggest that labour market counter-reforms could have a stimulative effect on real GDP per capita and employment growth. Under those circumstances, counter-reforms might provide much-needed stability and security to workers, which could, in turn, boost consumer confidence and spending. Measures like enhanced unemployment benefits or increased job security could support household incomes,

thereby raising demand for goods and services and stimulating economic activity. This could lead to improved utilization of idle resources, fostering economic recovery and job creation.

When we distinguish between EPL and UB counter-reforms, our results suggest that the effects of both types of counter-reforms on real GDP per capita growth are negative if output is above trend. However, the effect of EPL counter-reforms on real GDP per capita growth is larger than that of UB counter-reforms when output is below trend (despite both being surrounded by a large degree of uncertainty). In contrast, both types of counter-reforms do not seem to affect employment growth.

In periods of economic slack, EPL counter-reforms may positively impact growth through several mechanisms. First, increased job security provided by stricter employment protection can stabilize employment and improve consumer confidence. Workers feel more secure in their jobs, leading them to continue spending and stimulating demand for goods and services, ultimately boosting economic activity. Moreover, enhanced protections help maintain household incomes by safeguarding workers from immediate layoffs or providing severance pay. This prevents a drastic decline in consumption during economic downturns. Additionally, reduced employee turnover, a consequence of stricter EPL, can lower costs associated with hiring and training new staff, allowing businesses to redirect these savings toward productive investments that can stimulate growth. Furthermore, retaining employees encourages better skill matching, as firms are incentivized to keep their skilled workforce rather than laying off staff during challenging economic periods. This stability supports productivity and allows businesses to quickly respond when the economy begins to recover. Finally, with less frequent layoffs, companies might invest more in employee training and innovation, as retaining employees becomes more cost-effective. Such investment can lead to greater productivity, ultimately improving the long-term growth prospects. On the other hand, UB counter-reforms, which can involve increasing the generosity or duration of benefits, can have a more nuanced effect on real GDP per capita growth in periods of economic slack due to various factors. First, the immediate impact on GDP is limited because the additional income provided through unemployment benefits may not translate directly into consumption. Many households use this additional income to pay off debts or save rather than spend, which limits the broader economic impact. Moreover, extending unemployment benefits can discourage some individuals from actively seeking new employment, as they may remain out of the workforce longer due to the enhanced safety net. This behavior can lead to higher unemployment rates and reduce aggregate productivity, offsetting potential positive impacts on consumption. Additionally, the increased benefits mainly support those at the lower end of the income scale who tend to spend a higher

proportion of their income. However, the total amount distributed through increased benefits remains relatively small compared to the entire economy, limiting its impact on GDP per capita growth. Further complicating matters is that generous unemployment benefits can inadvertently increase labour market rigidities, as businesses perceive fewer active job seekers. This perception reduces the incentive to hire during periods of economic slack. Lastly, while increased unemployment benefits might positively influence retraining, skill acquisition, or transitioning workers to new industries, these benefits may take longer to manifest in GDP growth. As a result, our shorter-term statistical analysis may not capture, to the full extent, the longer-term effects adequately.

Finally, when we distinguish between EPL counter-reforms for regular and temporary workers we find that the effect of EPL counter-reforms on real GDP per capita growth is driven by regulations for regular workers. In a boom, this type of counter-reform reduces GDP per capita growth. We also find an effect on employment growth for EPL counter-reforms when we distinguish between regular and temporary workers. During a boom, the first type of counter-reform seems to reduce employment growth, while the second type increases employment growth.

5. Robustness analysis

As a first robustness test, we re-estimated the results conditional on the business cycle in the previous section using the Hodrik-Prescott filter with high smoothing parameter (λ=100) instead of the Hamilton (2018) filter to generate the output gap. Generally, the smooth transition results are similar in terms of sign, but the error bands are narrower indicating more statistically significant impulse responses. These results are available on request.

Next, we use the bias corrected LP estimator derived in Herbst and Johanssen (2024). Herbst and Johannsen (2024) show that LPs may be biased. The bias is more severe when there is high persistence, i.e., the sum of the coefficients of the lagged dependent variables is higher than 0.9. We have low persistence in most of our models as the sum of the coefficients of the lagged dependent variables is less than 0.5 all specifications when h=1 (when h>1 the persistence adds up because we are estimating cumulative growth rates, so the sum of the coefficients of the lagged dependent variables are not directly comparable at h>1). Nevertheless, in our basic LP model we implement the bias correction proposed Herbst and Johannsen (2024) since the bias also increases with h and shorter time-series dimension. The

results from that estimator are very similar to our previous estimates for eq. (1), as shown in Figure A3 in the Appendix. We therefore conclude that our models, due to the generally low persistence, are robust to the bias. We also apply the bias correction to our non-linear LP estimates and find again that the bias is negligible.[16]

Finally, we drop each country sequentially in the models used in the previous section. Table A25 and A26 in the appendix report the results concerning the effect of labour market counter-reforms on GDP per capita growth and employment growth. Our findings are robust to the exclusion of any specific country. Nevertheless, the results generally become stronger in terms of effect size and significance when either Portugal or Spain is excluded. This also holds when we decompose labour market counter-reforms into EPL counter-reforms (also for regular and temporary workers separately) and UB counter-reforms, and also when we use the smooth transition approach to estimate the effects conditional on the business cycle when the counter-reforms are introduced. These results are available on request.

6. Conclusion

This paper empirically examines the effects of labour market counter-reforms on employment and GDP growth across 25 OECD countries between 1973 and 2012, employing a narrative-based dataset of reforms. By disaggregating the counter-reforms into those affecting employment protection legislation (EPL) for regular and temporary workers and unemployment benefits (UB), our analysis reveals nuanced impacts that differ significantly across worker types and economic conditions. The local projections (LP) approach is used to estimate the dynamic effects of counter-reforms, allowing for a flexible examination of responses over time without imposing the restrictive dynamics typical of vector autoregression models. This method provides clarity on the temporal nature of reform impacts, highlighting how these effects evolve and persist up to four years after implementation.

Our findings indicate that the impacts of counter-reforms are influenced by the prevailing economic conditions and vary among different types of reforms. Specifically, labour market counter-reforms tend to decrease output growth when implemented during periods when the output gap is positive, while their effect on employment growth is not substantial. These counter-reforms are categorized into two types: employment protection legislation (EPL) and unemployment benefits (UB). Both types generally exert a negative impact on growth when the output is above its long-term trend. Notably, EPL counter-reforms have a more pronounced

[16] These results are avaible on request.

negative effect on real GDP per capita growth than UB counter-reforms. Additionally, the influence of EPL counter-reforms on employment growth varies between regular and temporary workers. In economic expansions, EPL targeted at regular workers tends to suppress employment growth, whereas it boosts employment among temporary workers.

The findings suggest significant implications for policymakers. First, the distinct effects on regular and temporary workers underscore the need for a balanced approach in EPL policies to avoid unintended consequences such as the substitution effect between different types of employment contracts. Moreover, the negative impact on real GDP per capita growth calls for careful consideration of the timing and context of implementing such reforms, especially during economic upturns where flexibility might be more crucial for maintaining growth momentum.

While our paper provides extensive insights, it is not without limitations. The generalizability of results outside the OECD context remains uncertain, and the effects in economies with different labour market structures may vary. Additionally, our paper primarily captures the short-to-medium-term effects of counter-reforms; longer-term dynamics remain less understood. Future research could focus on expanding the geographic and temporal scope of the analysis to include emerging market economies. Another promising area involves delving deeper into the sector-specific impacts of such counter-reforms, which could provide more granular insights beneficial for sector-targeted policy interventions.

In conclusion, while labour market counter-reforms are crucial in shaping employment dynamics and economic performance, their desirability heavily depend on the broader economic environment and the specific characteristics of the labour market. Thus, a nuanced, context-dependent approach in policy formulation and implementation is essential to foster both economic stability and growth.

References

Acemoglu, D., Autor, D. (2011). "Skills, tasks and technologies: Implications for employment and earnings." *Handbook of Labor Economics*, 4, 1043-1171.

Aghion, P., Bloom, N., Blundell, R., Griffith, R., Howitt, P. (2009). "The Effects of Entry on Incumbent Innovation and Productivity." *Review of Economics and Statistics*, 91(1), 20-32.

Alesina, A., Perotti, R. (1997). "Fiscal Adjustments in OECD Countries: Composition and Macroeconomic Effects." *IMF Staff Papers*, 44(2), 210-248.

Alesina, A., Drazen, A. (1991). "Why Are Stabilizations Delayed?" *American Economic Review*, 81(5), 1170-1188.

Alpanda, S., Granziera, E., Zubairy S., (2021). "State Dependence of Monetary Policy Across Business, Credit and Interest Rate Cycles." *European Economic Review*, 140, 103936.

Auerbach, A. J., Gorodnichenko, Y. (2012). "Measuring the Output Responses to Fiscal Policy." *American Economic Journal: Economic Policy*, 4(2), 1-27.

Autor, D.H., Dorn, D., Hanson, G.H. (2013). "The China Syndrome: Local Labor Market Effects of Import Competition in the United States." *American Economic Review*, 103(6), 2121-2168.

Autor, D. H., Katz, L. F., Kearney, M. S. (2006). "The Polarization of the U.S. Labor Market." *American Economic Review*, 96(2), 189-194.

Autor, D. H., Kerr, W. R., Kugler, A. D. (2007). "Does Employment Protection Reduce Productivity? Evidence From U.S. States." *Economic Journal,* 117(521), F189-F217.

Bassanini, A., Ernst, E. (2002). "Labour Market Institutions, Product Market Regulation, and Innovation: Cross-Country Evidence." OECD Economics Department Working Paper 316, OECD Publishing, Paris.

Bentolila, S., Bertola, G. (1990). "Firing Costs and Labour Demand: How Bad is Eurosclerosis?" *Review of Economic Studies,* 57(3), 381–402.

Blanchard, O. J., Summers, L. H. (1986). "Hysteresis and the European Unemployment Problem." In S. Fischer (Ed.), *NBER Macroeconomics Annual 1986*, Volume 1 (pp. 15-78). MIT Press.

Blanchard, O., Giavazzi, F. (2003). "Macroeconomic Effects of Regulation and Deregulation in Goods and Labor Markets." *Quarterly Journal of Economics*, 118(3), 879-907.

Blanchard, O., Portugal, P. (2001). "What Hides Behind an Unemployment Rate: Comparing Portuguese and U.S. Labor Markets." *American Economic Review*, 91(1), 187-207.

Bloom, N., Bond, S., Van Reenen, J. (2007). "Uncertainty and Investment Dynamics." *Review of Economic Studies*, 74(2), 391-415.

Boeri, T., van Ours, J. (2013). *The Economics of Imperfect Labor Markets*. Second edition. Princeton University Press.

Campos, N. F., Horváth, R. (2012). "On the Reversibility of Structural Reforms." *Economics Letters*, 117(1), 217-219.

Canova, F. (2024). "Should We Trust Cross-Sectional Multiplier Estimates?" *Journal of Applied Econometrics*, https://doi.org/10.1002/jae.3041.

Dabla-Norris, E., Kochhar, K., Suphaphiphat, N., Ricka, F., Tsounta, E. (2015). "Causes and Consequences of Income Inequality: A Global Perspective." IMF Staff Discussion Note 15/13, International Monetary Fund.

Da Silva, A., Givone, A., Sondermann, D. (2017). "When Do Countries Implement Structural Reforms?" ECB Working Paper 2078, European Central Bank.

de Haan, J., Wiese, R. (2022). "The Impact of Product and Labour Market Reform on Growth: Evidence for OECD Countries Based on Local Projections." *Journal of Applied Econometrics*, 37, 746–770.

Dewit, G., Leahy, D., Montagna, C. (2013). "Employment Protection, Flexibility and Firms' Strategic Location Decisions under Uncertainty." *Economica*, 80, 441-474.

Dewit, G., Görg, H., Temouri, Y. (2019). "Employment Protection and Firm Relocation: Theory and Evidence." *Economica*, 86, 663-688.

Dolado, J.J., Lalé, E., Siassi, N. (2021). "From dual to unified employment protection: Transition and steady state." *Quantitative Economics*, 12, 547-585.

Drazen, A., and W. Easterly. (2001). "Do Crises Induce Reform? Simple Empirical Tests of Conventional Wisdom." *Economics and Politics*, 13(2), 129-157.

Driscoll, J.C., Kraay, A.C. (1998). "Consistent Covariance Matrix Estimation with Spatially Dependent Panel Data." *Review of Economics and Statistics*, 80, 49-60.

Duval, R., Furceri, D. (2018). "The Effects of Labor and Product Market Reforms: The Role of Macroeconomic Conditions and Policies." *IMF Economic Review*, 66(1), 31-69.

Duval, R., Furceri, D., Miethe, J. (2021). "Robust Political Economy Correlates of Major Product and Labor Market Reforms in Advanced Economies: Evidence from BAMLE for Logit Models." *Journal of Applied Econometrics*, 36(1), 98-124.

Duval, R., Hong, G. H., Timmer, Y. (2020). "Financial Frictions and the Great Productivity Slowdown." *Review of Financial Studies,* 33(2), 475-503.

Fernandez, R., D. Rodrik. (1991). "Resistance to Reform: Status Quo Bias in the Presence of Individual-Specific Uncertainty." *American Economic Review*, 81(5), 1146-1155.

Galiani, S., Torre, I., Torrens, G. (2019). "International Organizations and Structural Reforms." *Journal of International Economics*, 121, 103249.

Gonçalves, S., Herrera, A. M., Kilian, L., Pesavento, E. (2024). "State-dependent Local Projections." *Journal of Econometrics*. https://doi.org/10.1016/j.jeconom.2024.105702.

Granger, C.W.J., Teräsvirta, T. (1993). *Modelling Non-Linear Economic Relationships*. Oxford University Press.

Griffith, R., Redding, S., Van Reenen, J. (2004). "Mapping the Two Faces of R&D: Productivity Growth in a Panel of OECD Industries." *Review of Economics and Statistics,* 86(4), 883-895.

Hamilton, J.D. (2018). "Why You Should Never Use the Hodrick-Prescott Filter." *Review of Economics and Statistics*, 100(5), 831-843.

Herbst, E. P., Johannsen, B. K. (2024). "Bias in Local Projections." *Journal of Econometrics*, 240(1), 105655.

Hülsewig, O., Rottmann, H. (2023). "Euro Area Periphery Countries' Fiscal Policy and Monetary Policy Surprises." *Oxford Bulletin of Economics and Statistics*, 84(3), 544-568.

Hunt, J. (2000). "Firing Costs, Employment Fluctuations and Average Employment: An Examination of Germany." *Economica*, 67, 177-202.

Jordà Ò. (2005). "Estimation and Inference of Impulse Responses by Local Projections." *American Economic Review*, 95, 161-182.

Jordà, Ò., Taylor, A. M. (2016). "The Time for Austerity: Estimating the Average Treatment Effect of Fiscal Policy." *Economic Journal,* 126(590), 219-255.

Jung, P., Kuester, K. (2015). "Optimal Labor-Market Policy in Recessions." *American Economic Journal: Macroeconomics,* 7(2), 124–156.

Krueger, A. B., Meyer, B. D. (2002). "Labor Supply Effects of Social Insurance." In A. J. Auerbach & M. Feldstein (Eds.), *Handbook of Public Economics,* 4, 2327-2392. Elsevier.

Layard, R., Nickell, S., Jackman, R. (1991). *Unemployment: Macroeconomic Performance and the Labour Market*. Oxford University Press.

Meyer, B. D. (1990). "Unemployment Insurance and Unemployment Spells." *Econometrica,* 58(4), 757-782.

Montiel Olea, J.L., Plagborg-Møller, M., Qian, E., Wolf, C.K. (2014). "Double Robustness of Local Projections and Some Unpleasant VARithmetic." NBER Working Paper 32495.

Näf, A., Stucki, Y., Thomet, J. (2022). "The Effects of Firing Costs on Labour Market Dynamics." *Economica*, 89, 461-488.

Nickell, S. (1997). "Unemployment and Labor Market Rigidities: Europe Versus North America." *Journal of Economic Perspectives,* 11(3), 55-74.

OECD (2019). OECD Employment Outlook 2019: The Future of Work. OECD Publishing, Paris.

Ortmans, A., Tripier F., (2021). "COVID-induced Sovereign Risk in the Euro Area: When Did the ECB Stop the Spread?" *European Economic Review*, 137, 103809.

Pesaran, M.H. (2015). "Testing Weak Cross-Sectional Dependence in Large Panels." *Econometric Reviews*, 34, 1089-1117.

Plagborg-Møller, M., Wolf, C.K. (2021). "Local Projection and VARs Estimate the Same Impulse Responses." *Econometrica,* 89(2), 955–980.

Ramey V.A., Zubairy, S. (2018). "Government Spending Multipliers in Good Times and in Bad: Evidence from US Historical Data." *Journal of Political Economy,* 126, 850-901.

Rodrik, D. (1996). "Understanding Economic Policy Reform." *Journal of Economic Literature*, 34(1), 9-41.

Rodrik, D. (2008). "The Real Exchange Rate and Economic Growth." *Brookings Papers on Economic Activity,* 2008(2), 365-412.

Roland, G., Verdier, T. (1999). "Transition and the Output Fall". *Economics of Transition and Institutional Change,* 7(1), 1-28.

Scarpetta, S., Tressel, T. (2004). "Boosting Productivity Via Innovation and Adoption of New Technologies: Any Role for Labor Market Institutions?" Policy Research Working Paper 3273, The World Bank.

Teulings, C. N., Zubanov, N. (2014). "Is Economic Recovery a Myth? Robust Estimation of Impulse Responses." *Journal of Applied Econometrics*, 29(3), 497-514.

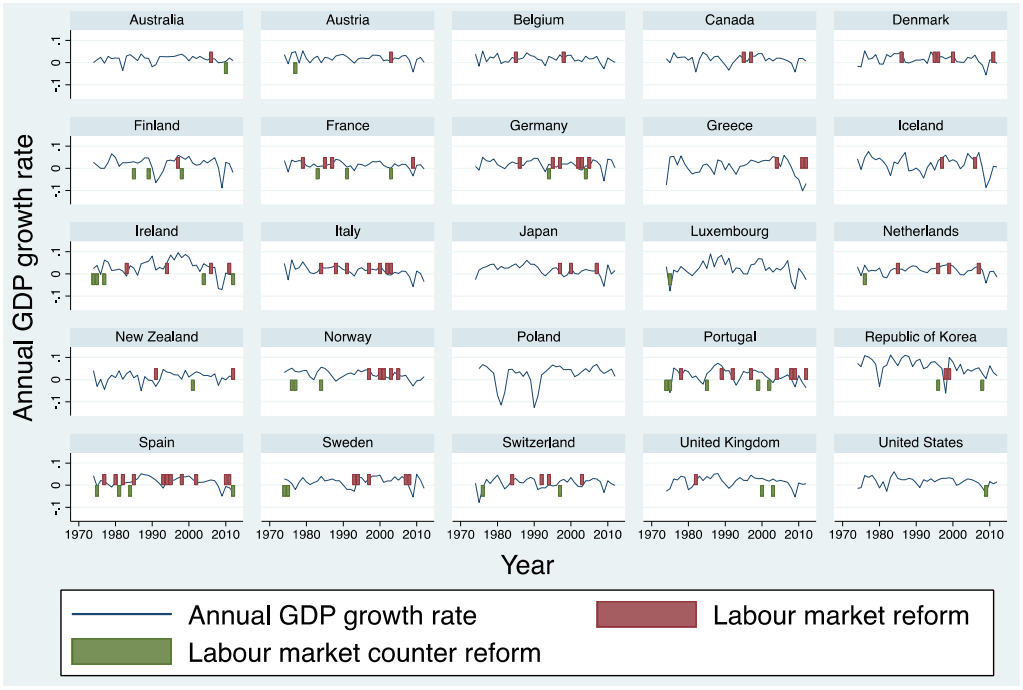
Wiese, R., Jalles, J., de Haan, J. (2023). "The Impact of Endogenous Product and Labour Market Reforms on Unemployment: New Evidence Based on Local Projections." Mimeo.

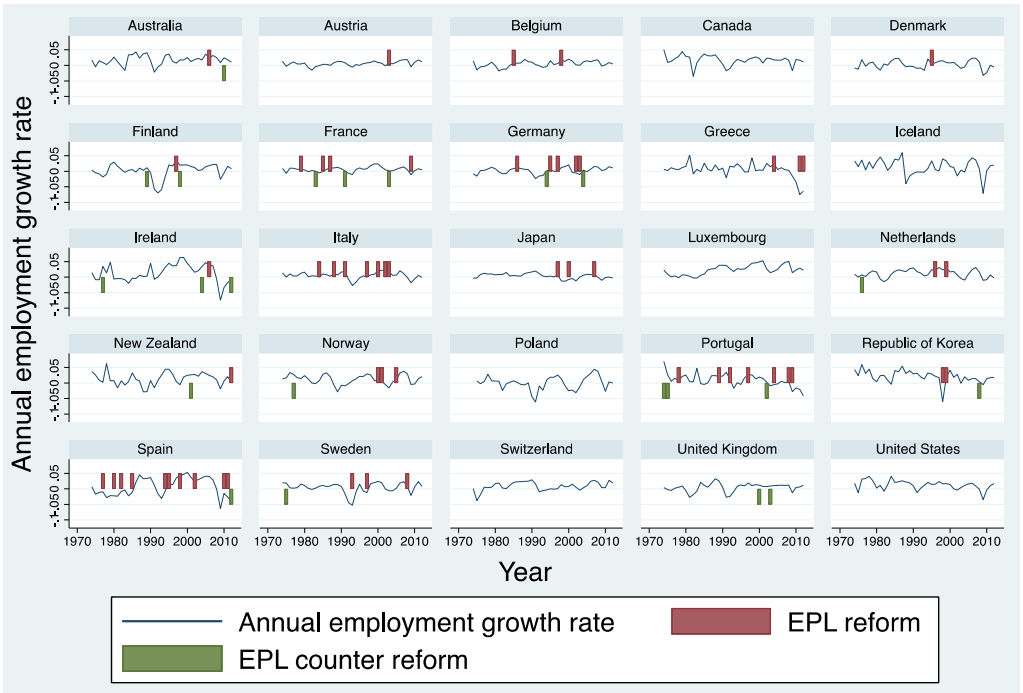
Wiese, R., Jalles, J., de Haan, J. (2024), "Structural Reforms and Income Distribution: New Evidence for OECD countries." *Oxford Economic Papers*, https://doi.org/10.1093/oep/gpae002.

Online Appendix

Figures

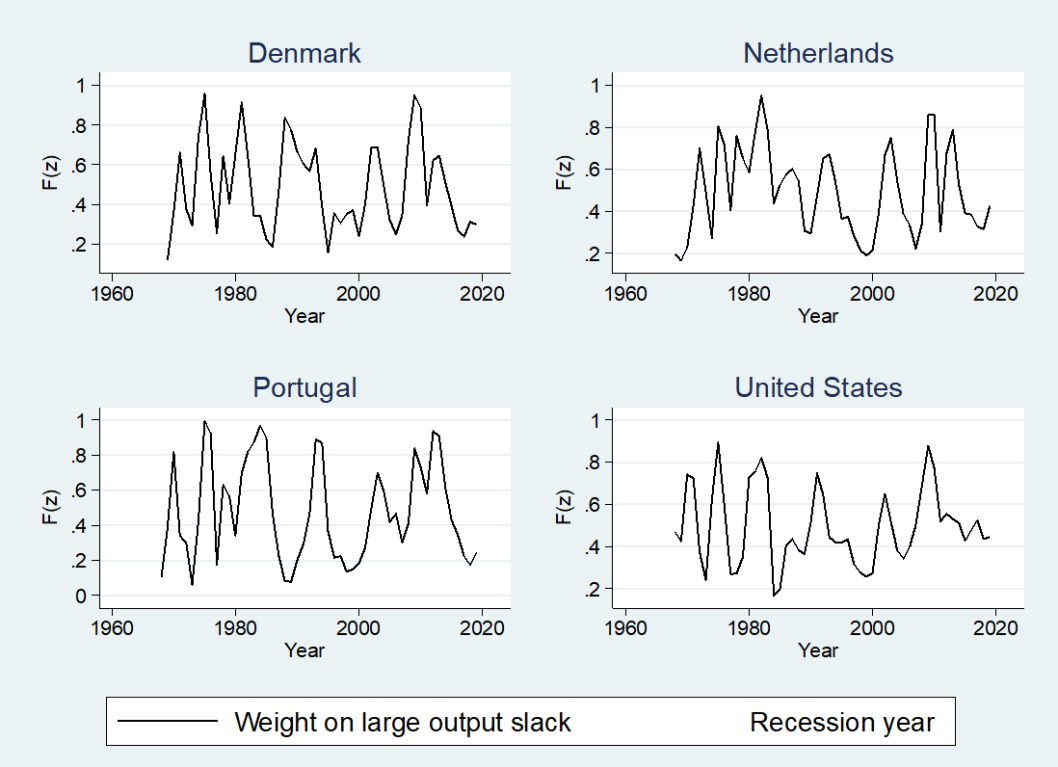
Figure A1. Growth of real GDP per capita and employment (as share of population) and labour market counter-reforms





Note: The total number of observations is 974, based on data availability in our 7-year forecast estmation sample.

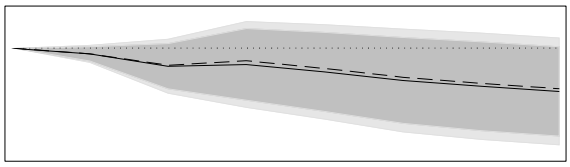
Figure A.2 Weights used based on classifying observations as recession or boom



Note: This figure shows how the smooth transition function classifies observations as recessions and shows the weights used in the smooth transition function.

Figure A3. Bias corrected impulse responses of labour market counter-reforms on real GDP per capita growth and employment growth

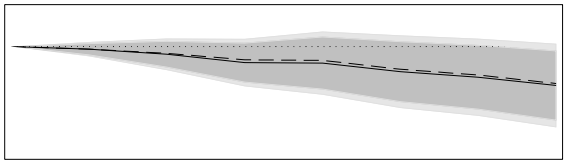
GDP growth



EPL counter reform, temporary workers

after counter reform

Employment growth



Notes: The solid (dashed) black lines in the figure plots the (non) bias corrected impulse responses of labour market counter-reforms on our dependent variables. Year=1 is the first year after a counter-reform took place at year=0. So, the position of the line at e.g., year=7 shows the change on say real GDP growth per capita 7 years after the counter-reform. The dark grey shaded areas display the 90% SCC error bands; the light grey shaded areas display the 95% SCC error bands.

Tables

Table A1. Descriptive Statistics

Variable	Observations	Mean	Standard Deviation	Minimum	Maximum
Counter LMR	974	.042	.201	0	1
Counter EPL	974	.024	.152	0	1
Counter EPL, regular	974	.014	.119	0	1
Counter EPL, temporary	974	.01	.101	0	1
Counter UB	974	.018	.135	0	1
LMR	974	.085	.279	0	1
EPL	974	.059	.235	0	1
EPL, regular	974	.029	.167	0	1
EPL, temporary	974	.038	.191	0	1
UB	974	.027	.161	0	1
Gross capital formation as share of GDP, annual growth	974	.002	.025	-.079	.14
Human capital index annual change	974	.007	.004	-.005	.042
GDP growth, annual	974	.019	.028	-.126	.111
Employment growth, annual	974	.016	.023	-.11	.117
Output gap, Hamilton filter	974	-.025	.331	-1.783	1.003

Table A2. Balancing tests counter-reforms for a counter-reform in t+1

	(1) Gross capital formation	(2) Lagged Gross capital formation	(3) Differenced Human capital index	(4) Lagged Differenced Human capital index	(5) GDP growth per capita	(6) Lagged GDP growth per capita	(7) Employment growth	(8) Lagged Employment growth
Counter LMR	0.007	0.008*	0.001	0.001	-0.002	-0.001	-0.002	-0.002
	(0.006)	(0.004)	(0.001)	(0.001)	(0.006)	(0.005)	(0.005)	(0.004)
Counter EPL	0.005	0.005	-0.001	-0.001	-0.002	-0.002	0.004	-0.000
	(0.008)	(0.005)	(0.001)	(0.001)	(0.007)	(0.006)	(0.005)	(0.005)
Counter EPL_r	0.006	0.008*	-0.000	-0.000	-0.002	-0.004	0.010*	0.000
	(0.010)	(0.004)	(0.001)	(0.001)	(0.008)	(0.008)	(0.005)	(0.007)
Counter EPL_t	-0.000	-0.002	-0.002	-0.001	0.001	0.003	0.001	0.004
	(0.005)	(0.006)	(0.001)	(0.001)	(0.006)	(0.005)	(0.004)	(0.004)
Counter UB	0.010	0.012**	0.004*	0.004	-0.001	0.000	-0.009	-0.005
	(0.008)	(0.005)	(0.002)	(0.002)	(0.009)	(0.008)	(0.006)	(0.004)
Obs.	974	974	974	974	974	974	974	974

Robust standard errors in parentheses: *** p<0.01, ** p<0.05, * p<0.1

Table A3. Critical values based on the bootstrap method from Canova (2024), 5% significance level

	h=1	h=2	h=3	h=4	h=5	h=6	h=7
Critical value	1.335	0.969	1.027	0.999	1.003	1.000	1.001

Note: We use the method described in Canova (2024) to calculate the critical values. We set T=40 and N=20. When estimating the coefficient of variation based on each time-series estimate unit-by-unit, we lose the units without counter reforms such that N becomes lower than what can be used in the panel estimates.

Table A4. Pairwise correlations

Variables	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
(1) c_LMR	1.000									
(2) c_EPL	0.742*	1.000								
(3) c_EPL_r	0.576*	0.777*	1.000							
(4) c_EPL_t	0.486*	0.655*	0.073*	1.000						
(5) c_UB	0.655*	-0.021	-0.017	-0.014	1.000					
(6) LMR	-0.027	-0.023	-0.037	0.005	-0.015	1.000				
(7) EPL	-0.030	-0.010	-0.030	0.018	-0.034	0.817*	1.000			
(8) EPL_r	0.025	0.054	-0.021	0.104*	-0.024	0.542*	0.664*	1.000		
(9) EPL_t	-0.042	-0.031	-0.024	-0.020	-0.027	0.651*	0.797*	0.191*	1.000	
(10) UB	-0.003	-0.026	-0.020	-0.017	0.025	0.543*	-0.041	-0.028	-0.033	1.000

**** p<0.01, ** p<0.05, * p<0.1 after Bonferroni correction*

Table A5. Labour market counter-reforms and GDP growth

VARIABLES	(1) GDP growth h=1	(2) GDP growth h=2	(3) GDP growth h=3	(4) GDP growth h=4	(5) GDP growth h=5	(6) GDP growth h=6	(7) GDP growth h=7
Counter LMR	-0.003	-0.009	-0.007	-0.011	-0.016	-0.019	-0.022
	(0.003)	(0.008)	(0.012)	(0.014)	(0.015)	(0.015)	(0.015)
L.Counter LMR	-0.005	-0.008	-0.011	-0.017*	-0.021**	-0.024**	-0.027**
	(0.005)	(0.006)	(0.007)	(0.009)	(0.009)	(0.009)	(0.010)
L2.Counter LMR	0.000	-0.002	-0.008	-0.013*	-0.015**	-0.016**	-0.022***
	(0.003)	(0.005)	(0.007)	(0.006)	(0.006)	(0.007)	(0.007)
L3.Counter LMR	-0.003	-0.008	-0.013**	-0.015**	-0.015*	-0.020**	-0.024***
	(0.003)	(0.005)	(0.005)	(0.006)	(0.008)	(0.008)	(0.008)
L4.Counter LMR	-0.004	-0.007**	-0.009*	-0.010	-0.015*	-0.019*	-0.020
	(0.002)	(0.003)	(0.005)	(0.007)	(0.008)	(0.010)	(0.013)
Gross capital form.	-0.227	-0.583	-0.818	-1.357*	-1.406	-1.272	-1.420
	(0.366)	(0.749)	(0.878)	(0.801)	(0.845)	(1.016)	(1.102)
L.Gross capital form.	0.040	0.186	0.371	0.939	1.105	1.026	1.259
	(0.331)	(0.731)	(0.965)	(0.944)	(0.871)	(0.905)	(0.940)
d.Human capital	0.816*	1.422	1.781	2.528**	3.084**	3.123*	2.566
	(0.445)	(0.936)	(1.058)	(1.220)	(1.485)	(1.744)	(1.833)
Ld.Human capital	-0.839***	-1.359**	-1.630**	-2.180***	-2.833***	-3.094***	-2.621**
	(0.279)	(0.639)	(0.696)	(0.679)	(0.779)	(1.117)	(1.159)
gdp_growth	0.162	-0.053	-0.203	-0.718	-0.788	-0.725	-0.949
	(0.344)	(0.685)	(0.812)	(0.744)	(0.750)	(0.856)	(0.912)
L.gdp_growth	0.030	0.239	0.355	0.897	0.992	0.817	1.048
	(0.329)	(0.714)	(0.929)	(0.884)	(0.832)	(0.898)	(0.930)
L2.gdp_growth	0.076*	0.013	-0.018	-0.096	-0.190	-0.170	-0.110
	(0.039)	(0.054)	(0.087)	(0.111)	(0.131)	(0.139)	(0.167)
L3.gdp_growth	-0.078**	-0.087	-0.128	-0.205	-0.191	-0.106	0.013
	(0.037)	(0.071)	(0.100)	(0.130)	(0.138)	(0.163)	(0.172)
L4.gdp_growth	0.015	0.010	-0.026	0.025	0.138	0.232	0.126
	(0.031)	(0.072)	(0.113)	(0.121)	(0.143)	(0.154)	(0.153)
F.LMR	-0.005***	-0.007**	-0.012***	-0.012***	-0.012***	-0.011**	-0.013**
	(0.002)	(0.003)	(0.003)	(0.004)	(0.004)	(0.005)	(0.006)
F2.LMR		-0.014***	-0.017***	-0.023***	-0.022***	-0.021***	-0.021***
		(0.005)	(0.006)	(0.005)	(0.006)	(0.006)	(0.006)
F3.LMR			-0.019**	-0.022**	-0.027***	-0.026***	-0.025***
			(0.008)	(0.008)	(0.008)	(0.009)	(0.008)
F4.LMR				-0.021***	-0.024***	-0.028***	-0.027***
				(0.007)	(0.008)	(0.008)	(0.008)
F5.LMR					-0.022**	-0.025**	-0.029***
					(0.008)	(0.009)	(0.009)
F6.LMR						-0.022***	-0.024***
						(0.008)	(0.008)
F7.LMR							-0.027***
							(0.006)
F.c_LMR	-0.001	-0.006	-0.012	-0.008	-0.012	-0.017	-0.022
	(0.003)	(0.005)	(0.010)	(0.014)	(0.015)	(0.016)	(0.017)
F2.c_LMR		-0.005	-0.008	-0.014	-0.009	-0.011	-0.018
		(0.003)	(0.005)	(0.010)	(0.014)	(0.016)	(0.019)
F3.c_LMR			-0.005	-0.008	-0.014	-0.009	-0.014
			(0.006)	(0.007)	(0.011)	(0.015)	(0.017)
F4.c_LMR				-0.015***	-0.018***	-0.024**	-0.019
				(0.005)	(0.006)	(0.010)	(0.015)
F5.c_LMR					-0.015	-0.019**	-0.024**
					(0.009)	(0.009)	(0.012)
F6.c_LMR						-0.014	-0.019*
						(0.011)	(0.010)
F7.c_LMR							-0.014
							(0.012)
Constant	0.026***	0.045***	0.091***	0.124***	0.144***	0.174***	0.213***
	(0.006)	(0.012)	(0.013)	(0.015)	(0.017)	(0.017)	(0.018)
Observations	974	974	974	974	974	974	974
Number of groups	25	25	25	25	25	25	25
Canova CV test	1.242	0.975	0.817	0.862	1.022§	1.155§	1.429§

Notes: SCC standard errors in parentheses: *** p<0.01, ** p<0.05, * p<0.1. § indicates Canova CV test statistic rejects the null of dynamic homogeneity at the 5% level.

Table A6. Labour market counter-reforms and employment growth

VARIABLES	(1) Employment growth h=1	(2) Employment growth h=2	(3) Employment growth h=3	(4) Employment growth h=4	(5) Employment growth h=5	(6) Employment growth h=6	(7) Employment growth h=7
Counter LMR	-0.001	-0.004	-0.007	-0.008	-0.013	-0.016	-0.021*
	(0.002)	(0.005)	(0.007)	(0.009)	(0.010)	(0.011)	(0.012)
Gross capital form.	-0.160***	-0.271***	-0.365***	-0.411***	-0.436***	-0.434***	-0.380***
	(0.032)	(0.048)	(0.065)	(0.071)	(0.070)	(0.067)	(0.074)
L.Gross capital form.	0.001	-0.041	-0.059	-0.082	-0.077	-0.034	-0.033
	(0.022)	(0.031)	(0.046)	(0.055)	(0.070)	(0.068)	(0.063)
d.Human capital	0.304	0.847	1.279**	1.611**	1.701**	1.871**	1.873*
	(0.259)	(0.563)	(0.623)	(0.670)	(0.782)	(0.881)	(1.057)
L.d.Human capital	-0.138	-0.535	-0.911*	-1.252**	-1.405**	-1.674**	-1.817
	(0.215)	(0.406)	(0.487)	(0.515)	(0.619)	(0.750)	(1.142)
Employment growth	0.455***	0.633***	0.607***	0.534***	0.487***	0.479***	0.425**
	(0.055)	(0.082)	(0.095)	(0.103)	(0.124)	(0.152)	(0.189)
L.Employment growth	0.008	-0.078	-0.107	-0.106	-0.105	-0.160	-0.168
	(0.036)	(0.069)	(0.108)	(0.133)	(0.148)	(0.180)	(0.184)
L2.Employment growth	-0.034	-0.026	-0.001	-0.008	-0.087	-0.082	-0.038
	(0.040)	(0.073)	(0.095)	(0.110)	(0.138)	(0.142)	(0.160)
L3.Employment growth	0.009	0.037	0.016	-0.059	-0.039	0.019	0.027
	(0.041)	(0.072)	(0.079)	(0.105)	(0.117)	(0.147)	(0.117)
L4.Employment growth	0.034	0.011	-0.020	0.045	0.109	0.111	0.102
	(0.032)	(0.069)	(0.104)	(0.118)	(0.130)	(0.152)	(0.170)
Constant	0.008***	0.018***	0.041***	0.065***	0.077***	0.102***	0.127***
	(0.002)	(0.004)	(0.007)	(0.008)	(0.010)	(0.011)	(0.011)
Lags of counter reforms	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Leads of counter reforms and reforms	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Country and time FEs	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	974	974	974	974	974	974	974
Number of groups	25	25	25	25	25	25	25
Canova CV test	-0.880	-1.489§	9.055§	2.319§	4.575§	-4.784§	-1.158§

Notes: SCC standard errors in parentheses: *** p<0.01, ** p<0.05, * p<0.1. § indicates that the Canova CV test statistic rejects the null of dynamic homogeneity at the 5% level.

Table A7. UB counter-reforms and GDP growth

VARIABLES	(1) GDP growth h=1	(2) GDP growth h=2	(3) GDP growth h=3	(4) GDP growth h=4	(5) GDP growth h=5	(6) GDP growth h=6	(7) GDP growth h=7
Counter UB	-0.001	-0.014	-0.012	-0.017	-0.023	-0.026	-0.031
	(0.005)	(0.012)	(0.016)	(0.019)	(0.020)	(0.019)	(0.020)
Gross capital form.	-0.212	-0.538	-0.746	-1.261	-1.376	-1.254	-1.416
	(0.368)	(0.758)	(0.906)	(0.818)	(0.861)	(1.038)	(1.147)
L.Gross capital form.	0.038	0.154	0.298	0.801	0.982	0.866	1.058
	(0.335)	(0.752)	(1.021)	(1.024)	(0.945)	(0.978)	(1.010)
d.Human capital	0.768	1.458	1.882	2.621**	3.399**	3.692**	3.324*
	(0.509)	(1.013)	(1.194)	(1.294)	(1.555)	(1.721)	(1.805)
L.d.Human capital	-0.736**	-1.216*	-1.414**	-1.818***	-2.526***	-2.926**	-2.607**
	(0.292)	(0.644)	(0.683)	(0.655)	(0.819)	(1.128)	(1.112)
gdp_growth	0.188	0.014	-0.103	-0.589	-0.718	-0.656	-0.892
	(0.346)	(0.696)	(0.838)	(0.759)	(0.766)	(0.881)	(0.958)
L.gdp_growth	0.025	0.202	0.284	0.762	0.888	0.679	0.870
	(0.333)	(0.736)	(0.983)	(0.957)	(0.897)	(0.958)	(0.995)
L2.gdp_growth	0.076**	0.019	-0.015	-0.076	-0.168	-0.148	-0.101
	(0.037)	(0.055)	(0.089)	(0.116)	(0.135)	(0.147)	(0.171)
L3.gdp_growth	-0.079**	-0.093	-0.122	-0.204	-0.191	-0.122	0.002
	(0.036)	(0.071)	(0.101)	(0.130)	(0.141)	(0.164)	(0.178)
L4.gdp_growth	0.016	0.020	-0.019	0.032	0.137	0.238	0.122
	(0.030)	(0.068)	(0.111)	(0.126)	(0.148)	(0.162)	(0.167)
Constant	0.030***	0.036***	0.050***	0.122***	0.126***	0.141***	0.165***
	(0.003)	(0.007)	(0.010)	(0.013)	(0.015)	(0.016)	(0.018)
Lags of counter reforms	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Leads of counter reforms and reforms	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Country and time FEs	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	974	974	974	974	974	974	974
Number of groups	25	25	25	25	25	25	25
Canova CV test	0.751	0.840	0.772	0.818	0.954	0.997	1.094§

Notes: SCC standard errors in parentheses: *** p<0.01, ** p<0.05, * p<0.1. § indicates that the Canova CV test statistic rejects the null of dynamic homogeneity at the 5% level.

Table A8. EPL counter-reforms and GDP growth, regular and temporary workers

VARIABLES	(1) GDP growth h=1	(2) GDP growth h=2	(3) GDP growth h=3	(4) GDP growth h=4	(5) GDP growth h=5	(6) GDP growth h=6	(7) GDP growth h=7
Counter EPL, r&t	-0.005	-0.006	-0.003	-0.008	-0.013	-0.016	-0.019
	(0.004)	(0.009)	(0.017)	(0.018)	(0.022)	(0.023)	(0.024)
Gross capital form.	-0.221	-0.598	-0.821	-1.355*	-1.407*	-1.327	-1.543
	(0.360)	(0.750)	(0.867)	(0.783)	(0.812)	(0.985)	(1.091)
L.Gross capital form.	0.028	0.176	0.348	0.881	1.002	0.931	1.189
	(0.324)	(0.726)	(0.948)	(0.943)	(0.899)	(0.927)	(0.982)
d.Human capital	0.882**	1.557*	2.033*	2.892**	3.490**	3.460*	2.943
	(0.435)	(0.916)	(1.061)	(1.247)	(1.546)	(1.916)	(2.096)
L.d.Human capital	-0.907***	-1.506**	-1.882**	-2.563***	-3.306***	-3.510***	-3.001**
	(0.295)	(0.679)	(0.752)	(0.729)	(0.848)	(1.202)	(1.309)
gdp_growth	0.169	-0.065	-0.201	-0.708	-0.785	-0.772	-1.054
	(0.337)	(0.679)	(0.796)	(0.725)	(0.713)	(0.819)	(0.898)
L.gdp_growth	0.016	0.234	0.338	0.847	0.901	0.742	1.008
	(0.322)	(0.706)	(0.911)	(0.881)	(0.853)	(0.914)	(0.962)
L2.gdp_growth	0.082*	0.020	-0.012	-0.081	-0.164	-0.135	-0.055
	(0.041)	(0.054)	(0.087)	(0.111)	(0.132)	(0.140)	(0.163)
L3.gdp_growth	-0.079**	-0.085	-0.122	-0.192	-0.164	-0.063	0.047
	(0.036)	(0.071)	(0.098)	(0.126)	(0.133)	(0.155)	(0.168)
L4.gdp_growth	0.021	0.025	-0.002	0.065	0.196	0.289*	0.193
	(0.031)	(0.072)	(0.107)	(0.112)	(0.131)	(0.144)	(0.142)
Constant	-0.005	-0.006	-0.003	-0.008	-0.013	-0.016	-0.019
	(0.004)	(0.009)	(0.017)	(0.018)	(0.022)	(0.023)	(0.024)
Lags of counter reforms	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Leads of counter reforms and reforms	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Country and time FEs	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	974	974	974	974	974	974	974
Number of groups	25	25	25	25	25	25	25
Canova CV test	-0.719	-3.502§	1.556§	3.824§	3.344§	1.939§	2.066§

Notes: SCC standard errors in parentheses: *** p<0.01, ** p<0.05, * p<0.1. § indicates that the Canova CV test statistic rejects the null of dynamic homogeneity at the 5% level.

Table A9. EPL counter-reforms and GDP growth, regular workers

VARIABLES	(1) GDP growth h=1	(2) GDP growth h=2	(3) GDP growth h=3	(4) GDP growth h=4	(5) GDP growth h=5	(6) GDP growth h=6	(7) GDP growth h=7
Counter EPL, r	-0.004	-0.006	0.004	0.004	0.006	0.009	0.008
	(0.006)	(0.013)	(0.025)	(0.024)	(0.026)	(0.029)	(0.030)
Gross capital form.	-0.214	-0.563	-0.792	-1.335*	-1.441*	-1.323	-1.478
	(0.362)	(0.766)	(0.884)	(0.792)	(0.821)	(1.008)	(1.122)
L.Gross capital form.	0.028	0.153	0.305	0.819	0.982	0.871	1.073
	(0.322)	(0.745)	(0.983)	(0.986)	(0.923)	(0.965)	(1.029)
d.Human capital	0.869*	1.498	1.892*	2.678**	3.334**	3.459*	3.093
	(0.452)	(0.969)	(1.118)	(1.281)	(1.619)	(2.002)	(2.149)
L.d.Human capital	-0.876***	-1.424**	-1.684**	-2.195***	-2.857***	-3.079**	-2.637*
	(0.294)	(0.652)	(0.735)	(0.791)	(1.008)	(1.434)	(1.540)
gdp_growth	0.182	-0.013	-0.142	-0.649	-0.771	-0.719	-0.938
	(0.340)	(0.695)	(0.813)	(0.733)	(0.721)	(0.845)	(0.933)
L.gdp_growth	0.018	0.215	0.310	0.799	0.900	0.704	0.909
	(0.320)	(0.725)	(0.943)	(0.920)	(0.872)	(0.943)	(1.001)
L2.gdp_growth	0.083**	0.023	-0.009	-0.073	-0.153	-0.127	-0.061
	(0.041)	(0.055)	(0.091)	(0.116)	(0.139)	(0.149)	(0.170)
L3.gdp_growth	-0.080**	-0.085	-0.123	-0.187	-0.167	-0.076	0.023
	(0.035)	(0.068)	(0.098)	(0.130)	(0.137)	(0.160)	(0.173)
L4.gdp_growth	0.022	0.023	0.003	0.060	0.176	0.258*	0.151
	(0.031)	(0.072)	(0.109)	(0.115)	(0.134)	(0.148)	(0.148)
Constant	0.030***	0.060***	0.086***	0.140***	0.161***	0.185***	0.192***
	(0.004)	(0.007)	(0.011)	(0.012)	(0.014)	(0.016)	(0.016)
Lags of counter reforms	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Leads of counter reforms and reforms	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Country and time FEs	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	974	974	974	974	974	974	974
Number of groups	25	25	25	25	25	25	25
Canova CV test	2.338§	2.357§	1.425§	3.429§	24.73§	6.261§	-8.320§

Notes: SCC standard errors in parentheses: *** p<0.01, ** p<0.05, * p<0.1. § indicates that the Canova CV test statistic rejects the null of dynamic homogeneity at the 5% level.

Table A10. EPL counter-reforms and GDP growth, temporary workers

VARIABLES	(1) GDP growth h=1	(2) GDP growth h=2	(3) GDP growth h=3	(4) GDP growth h=4	(5) GDP growth h=5	(6) GDP growth h=6	(7) GDP growth h=7
Counter EPL, t	-0.003	0.000	-0.005	-0.017	-0.028	-0.035	-0.042
	(0.003)	(0.005)	(0.009)	(0.017)	(0.023)	(0.026)	(0.030)
Gross capital form.	-0.225	-0.578	-0.751	-1.254	-1.302	-1.192	-1.428
	(0.357)	(0.736)	(0.868)	(0.790)	(0.848)	(1.030)	(1.169)
L.Gross capital form.	0.032	0.157	0.274	0.750	0.824	0.667	0.882
	(0.321)	(0.714)	(0.954)	(0.965)	(0.949)	(0.999)	(1.076)
d.Human capital	0.852*	1.445	1.777	2.547**	3.076**	3.034	2.466
	(0.441)	(0.943)	(1.064)	(1.220)	(1.495)	(1.808)	(2.015)
L.d.Human capital	-0.898***	-1.433**	-1.696**	-2.258***	-2.897***	-3.056**	-2.469*
	(0.258)	(0.670)	(0.677)	(0.653)	(0.781)	(1.129)	(1.267)
gdp_growth	0.164	-0.053	-0.149	-0.632	-0.700	-0.646	-0.945
	(0.333)	(0.664)	(0.791)	(0.723)	(0.730)	(0.843)	(0.957)
L.gdp_growth	0.024	0.216	0.267	0.728	0.754	0.506	0.748
	(0.319)	(0.695)	(0.914)	(0.900)	(0.897)	(0.978)	(1.053)
L2.gdp_growth	0.081**	0.024	-0.002	-0.056	-0.146	-0.096	-0.009
	(0.039)	(0.056)	(0.087)	(0.115)	(0.132)	(0.144)	(0.168)
L3.gdp_growth	-0.077**	-0.083	-0.107	-0.188	-0.144	-0.033	0.091
	(0.037)	(0.073)	(0.103)	(0.128)	(0.138)	(0.161)	(0.172)
L4.gdp_growth	0.020	0.029	-0.005	0.075	0.214	0.318**	0.212
	(0.031)	(0.069)	(0.105)	(0.114)	(0.137)	(0.152)	(0.155)
Constant	0.030***	0.062***	0.088***	0.119***	0.159***	0.202***	0.238***
	(0.004)	(0.007)	(0.013)	(0.015)	(0.016)	(0.017)	(0.018)
Lags of counter reforms	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Leads of counter reforms and reforms	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Country and time FEs	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	974	974	974	974	974	974	974
Number of groups	25	25	25	25	25	25	25
Canova CV test	12.31§	1.878§	1.855§	10.07§	18.70§	3.016§	-12.86§

Notes: SCC standard errors in parentheses: *** p<0.01, ** p<0.05, * p<0.1. § indicates that the Canova CV test statistic rejects the null of dynamic homogeneity at the 5% level.

Table A11. UB counter-reforms and employment growth

VARIABLES	(1) Employment growth h=1	(2) Employment growth h=2	(3) Employment growth h=3	(4) Employment growth h=4	(5) Employment growth h=5	(6) Employment growth h=6	(7) Employment growth h=7
Counter UB	-0.003	-0.011	-0.016	-0.019	-0.026	-0.032*	-0.042**
	(0.002)	(0.008)	(0.012)	(0.014)	(0.016)	(0.017)	(0.018)
Gross capital form.	-0.165***	-0.278***	-0.376***	-0.423***	-0.435***	-0.450***	-0.402***
	(0.033)	(0.054)	(0.069)	(0.068)	(0.066)	(0.060)	(0.064)
L.Gross capital form.	0.003	-0.034	-0.052	-0.060	-0.067	-0.027	-0.027
	(0.023)	(0.033)	(0.052)	(0.054)	(0.072)	(0.070)	(0.068)
d.Human capital	0.273	0.776	1.273*	1.557**	1.785**	2.260**	2.363**
	(0.277)	(0.606)	(0.644)	(0.673)	(0.812)	(0.931)	(1.102)
L.d.Human capital	-0.067	-0.346	-0.642	-0.791	-0.914	-1.328	-1.510
	(0.223)	(0.427)	(0.471)	(0.545)	(0.720)	(0.828)	(1.214)
Employment growth	0.452***	0.641***	0.611***	0.562***	0.555***	0.525***	0.461***
	(0.055)	(0.082)	(0.098)	(0.098)	(0.117)	(0.141)	(0.167)
L.Employment growth	0.009	-0.083	-0.103	-0.078	-0.107	-0.166	-0.201
	(0.038)	(0.056)	(0.090)	(0.110)	(0.123)	(0.158)	(0.172)
L2.Employment growth	-0.040	-0.027	0.020	0.000	-0.084	-0.110	-0.084
	(0.038)	(0.067)	(0.083)	(0.093)	(0.119)	(0.127)	(0.142)
L3.Employment growth	0.016	0.060	0.031	-0.053	-0.060	-0.027	-0.021
	(0.040)	(0.066)	(0.072)	(0.098)	(0.108)	(0.129)	(0.106)
L4.Employment growth	0.031	-0.010	-0.069	-0.057	-0.030	-0.049	-0.105
	(0.030)	(0.063)	(0.097)	(0.119)	(0.137)	(0.165)	(0.182)
Constant	0.014***	0.009***	0.010*	0.068***	0.064***	0.066***	0.086***
	(0.001)	(0.003)	(0.006)	(0.006)	(0.008)	(0.009)	(0.011)
Lags of counter reforms	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Leads of counter reforms and reforms	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Country and time FEs	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	974	974	974	974	974	974	974
Number of groups	25	25	25	25	25	25	25
Canova CV test	-1.025	11.03§	1.420§	0.878	0.976	1.416§	14.81§

Notes: SCC standard errors in parentheses: *** p<0.01, ** p<0.05, * p<0.1. § indicates Canova CV test statistic rejects the null of dynamic homogeneity at the 5% level.

Table A12. EPL counter-reforms and employment growth, regular and temporary

VARIABLES	(1) Employment growth h=1	(2) Employment growth h=2	(3) Employment growth h=3	(4) Employment growth h=4	(5) Employment growth h=5	(6) Employment growth h=6	(7) Employment growth h=7
Counter EPL, r & t	-0.001	0.001	0.001	0.001	-0.003	-0.001	-0.003
	(0.003)	(0.005)	(0.008)	(0.011)	(0.014)	(0.014)	(0.015)
Gross capital form.	-0.167***	-0.278***	-0.374***	-0.425***	-0.446***	-0.465***	-0.434***
	(0.031)	(0.048)	(0.063)	(0.072)	(0.072)	(0.070)	(0.079)
L.Gross capital form.	0.005	-0.036	-0.052	-0.072	-0.084	-0.061	-0.076
	(0.020)	(0.031)	(0.045)	(0.052)	(0.063)	(0.065)	(0.063)
d.Human capital	0.346	0.912	1.388*	1.810**	1.878**	1.896*	1.933
	(0.260)	(0.583)	(0.695)	(0.751)	(0.853)	(0.998)	(1.212)
L.d.Human capital	-0.162	-0.568	-0.956	-1.372**	-1.523**	-1.616*	-1.661
	(0.222)	(0.437)	(0.569)	(0.614)	(0.715)	(0.890)	(1.286)
Employment growth	0.452***	0.636***	0.636***	0.571***	0.546***	0.507***	0.424**
	(0.054)	(0.083)	(0.097)	(0.102)	(0.118)	(0.147)	(0.185)
L.Employment growth	0.012	-0.052	-0.087	-0.057	-0.087	-0.150	-0.141
	(0.035)	(0.067)	(0.108)	(0.127)	(0.152)	(0.186)	(0.189)
L2.Employment growth	-0.023	-0.016	0.027	0.004	-0.068	-0.033	0.049
	(0.043)	(0.074)	(0.089)	(0.110)	(0.136)	(0.139)	(0.156)
L3.Employment growth	0.007	0.043	0.005	-0.071	-0.035	0.049	0.045
	(0.041)	(0.068)	(0.080)	(0.105)	(0.116)	(0.143)	(0.120)
L4.Employment growth	0.038	0.011	-0.006	0.083	0.166	0.165	0.175
	(0.029)	(0.067)	(0.098)	(0.105)	(0.126)	(0.157)	(0.183)
Constant	0.009***	0.025***	0.045***	0.067***	0.086***	0.102***	0.114***
	(0.001)	(0.003)	(0.004)	(0.006)	(0.008)	(0.010)	(0.011)
Lags of counter reforms	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Leads of counter reforms and reforms	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Country and time FEs	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	974	974	974	974	974	974	974
Number of groups	25	25	25	25	25	25	25
Canova CV test	-17.52§	-43.67§	10.03§	7.719§	4.437§	2.218§	1.946§

Notes: SCC standard errors in parentheses: *** p<0.01, ** p<0.05, * p<0.1. § indicates that the Canova CV test statistic rejects the null of dynamic homogeneity at the 5% level.

Table A13. EPL counter-reforms and employment growth, regular

VARIABLES	(1) Employment growth h=1	(2) Employment growth h=2	(3) Employment growth h=3	(4) Employment growth h=4	(5) Employment growth h=5	(6) Employment growth h=6	(7) Employment growth h=7
Counter EPL, r	-0.003	-0.006	-0.007	-0.008	-0.007	-0.003	-0.005
	(0.004)	(0.006)	(0.011)	(0.015)	(0.017)	(0.018)	(0.019)
Gross capital form.	-0.167***	-0.277***	-0.381***	-0.434***	-0.446***	-0.477***	-0.449***
	(0.030)	(0.049)	(0.066)	(0.072)	(0.074)	(0.074)	(0.083)
L.Gross capital form.	0.008	-0.033	-0.051	-0.063	-0.080	-0.052	-0.057
	(0.020)	(0.033)	(0.049)	(0.056)	(0.065)	(0.066)	(0.068)
d.Human capital	0.323	0.849	1.284*	1.651*	1.797*	1.921	2.018
	(0.263)	(0.612)	(0.749)	(0.867)	(1.047)	(1.283)	(1.526)
L.d.Human capital	-0.154	-0.548	-0.882	-1.215*	-1.396	-1.534	-1.604
	(0.214)	(0.439)	(0.576)	(0.683)	(0.843)	(1.101)	(1.544)
Employment growth	0.459***	0.665***	0.670***	0.623***	0.634***	0.578***	0.514**
	(0.051)	(0.081)	(0.100)	(0.103)	(0.127)	(0.164)	(0.210)
L.Employment growth	0.017	-0.057	-0.082	-0.035	-0.094	-0.133	-0.131
	(0.031)	(0.065)	(0.105)	(0.128)	(0.157)	(0.198)	(0.206)
L2.Employment growth	-0.025	-0.014	0.038	-0.005	-0.061	-0.043	0.022
	(0.041)	(0.074)	(0.096)	(0.120)	(0.149)	(0.153)	(0.165)
L3.Employment growth	0.007	0.047	-0.003	-0.070	-0.046	0.020	0.015
	(0.042)	(0.070)	(0.083)	(0.115)	(0.123)	(0.143)	(0.124)
L4.Employment growth	0.033	-0.004	-0.021	0.047	0.109	0.106	0.106
	(0.030)	(0.071)	(0.109)	(0.117)	(0.134)	(0.164)	(0.185)
Constant	0.009***	0.025***	0.030***	0.061***	0.078***	0.086***	0.096***
	(0.001)	(0.002)	(0.005)	(0.005)	(0.007)	(0.009)	(0.011)
Lags of counter reforms	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Leads of counter reforms and reforms	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Country and time FEs	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	974	974	974	974	974	974	974
Number of groups	25	25	25	25	25	25	25
Canova CV test	4.567§	4.909§	2.977§	2.656§	3.271§	2.511§	4.542§

Notes: SCC standard errors in parentheses: *** p<0.01, ** p<0.05, * p<0.1. § indicates that the Canova CV test statistic rejects the null of dynamic homogeneity at the 5% level.

Table A14. EPL counter-reforms and employment growth, temporary

VARIABLES	(1) Employment growth h=1	(2) Employment growth h=2	(3) Employment growth h=3	(4) Employment growth h=4	(5) Employment growth h=5	(6) Employment growth h=6	(7) Employment growth h=7
Counter EPL, t	0.004*	0.013***	0.018***	0.021**	0.016	0.017	0.015
	(0.002)	(0.004)	(0.006)	(0.010)	(0.017)	(0.020)	(0.024)
Gross capital form.	-0.163***	-0.272***	-0.360***	-0.413***	-0.444***	-0.475***	-0.432***
	(0.033)	(0.050)	(0.067)	(0.073)	(0.071)	(0.074)	(0.080)
L.Gross capital form.	0.002	-0.038	-0.059	-0.088*	-0.112*	-0.085	-0.121*
	(0.022)	(0.031)	(0.046)	(0.050)	(0.066)	(0.066)	(0.069)
d.Human capital	0.342	0.945	1.372*	1.879**	2.023**	2.180**	2.208*
	(0.280)	(0.609)	(0.685)	(0.775)	(0.891)	(0.996)	(1.192)
L.d.Human capital	-0.150	-0.564	-0.854	-1.292**	-1.473**	-1.674*	-1.761
	(0.232)	(0.427)	(0.533)	(0.572)	(0.692)	(0.836)	(1.246)
Employment growth	0.453***	0.635***	0.631***	0.545***	0.502***	0.469***	0.383**
	(0.054)	(0.082)	(0.099)	(0.102)	(0.117)	(0.148)	(0.182)
L.Employment growth	0.012	-0.058	-0.111	-0.082	-0.094	-0.170	-0.157
	(0.036)	(0.066)	(0.107)	(0.122)	(0.138)	(0.169)	(0.173)
L2.Employment growth	-0.031	-0.036	0.011	0.008	-0.077	-0.025	0.066
	(0.041)	(0.069)	(0.083)	(0.096)	(0.118)	(0.118)	(0.133)
L3.Employment growth	0.010	0.052	0.032	-0.060	-0.014	0.082	0.082
	(0.041)	(0.067)	(0.075)	(0.097)	(0.108)	(0.128)	(0.112)
L4.Employment growth	0.043	0.025	-0.007	0.088	0.171	0.138	0.085
	0.004*	0.013***	0.018***	0.021**	0.016	0.017	0.015
Constant	0.009***	0.024***	0.036***	0.054***	0.087***	0.101***	0.134***
	(0.001)	(0.003)	(0.006)	(0.007)	(0.009)	(0.009)	(0.011)
Lags of counter reforms	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Leads of counter reforms and reforms	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Country and time FEs	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	974	974	974	974	974	974	974
Number of groups	25	25	25	25	25	25	25
Canova CV test	0.730	0.729	0.600	0.636	0.881	1.127§	1.129§

Notes: SCC standard errors in parentheses: *** p<0.01, ** p<0.05, * p<0.1. § indicates Canova CV test statistic rejects the null of dynamic homogeneity at the 5% level.

Table A15. Labour market counter-reforms and GDP growth, conditional on business cycle

VARIABLES	(1) GDP growth h=1	(2) GDP growth h=2	(3) GDP growth h=3	(4) GDP growth h=4	(5) GDP growth h=5	(6) GDP growth h=6	(7) GDP growth h=7
Counter LMR, boom	-0.017*	-0.042**	-0.060**	-0.078***	-0.089***	-0.093***	-0.102***
	(0.009)	(0.018)	(0.024)	(0.025)	(0.029)	(0.031)	(0.032)
Counter LMR, slump	0.010**	0.020**	0.041	0.049	0.048	0.044	0.046
	(0.005)	(0.010)	(0.028)	(0.031)	(0.035)	(0.043)	(0.044)
Controls, leads & lags	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Country and time FEs	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	972	972	972	972	972	972	972
Number of groups	25	25	25	25	25	25	25
Canova CV test, β^H	0.505	5.806§	0.554	0.477	1.249§	-0.606	-3.529§
Canova CV test, β^L	-1.551§	1.252§	2.213§	1.246§	1.913§	0.849	0.968

Notes: SCC standard errors in parentheses: *** p<0.01, ** p<0.05, * p<0.1. § indicates that the Canova CV test statistic rejects the null of dynamic homogeneity at the 5% level.

Table A16. UB counter-reforms and GDP growth, conditional on business cycle

VARIABLES	(1) GDP growth h=1	(2) GDP growth h=2	(3) GDP growth h=3	(4) GDP growth h=4	(5) GDP growth h=5	(6) GDP growth h=6	(7) GDP growth h=7
Counter UB, boom	-0.015*	-0.046	-0.053**	-0.073***	-0.087***	-0.087**	-0.096***
	(0.009)	(0.028)	(0.023)	(0.022)	(0.027)	(0.032)	(0.035)
Counter UB, slump	0.009*	0.011	0.019	0.027	0.026	0.019	0.016
	(0.005)	(0.013)	(0.023)	(0.036)	(0.041)	(0.048)	(0.050)
Controls, leads & lags	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Country and time FEs	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	972	972	972	972	972	972	972
Number of groups	25	25	25	25	25	25	25
Canova CV test, β^H	-5.320§	-3.089§	-4.511§	-0.932	-0.818	-0.595	-0.573
Canova CV test, β^L	0.875	0.733	0.721	0.633	0.619	0.656	0.666

Notes: SCC standard errors in parentheses: *** p<0.01, ** p<0.05, * p<0.1. § indicates that the Canova CV test statistic rejects the null of dynamic homogeneity at the 5% level.

Table A17. EPL counter-reforms and GDP growth, regular and temporary workers conditional on business cycle

VARIABLES	(1) GDP growth h=1	(2) GDP growth h=2	(3) GDP growth h=3	(4) GDP growth h=4	(5) GDP growth h=5	(6) GDP growth h=6	(7) GDP growth h=7
Counter EPL, r&t boom	-0.019	-0.047	-0.088*	-0.097*	-0.110*	-0.112*	-0.114*
	(0.014)	(0.030)	(0.049)	(0.053)	(0.059)	(0.060)	(0.059)
Counter LMR, r&t slump	0.007	0.028*	0.072	0.069	0.069	0.064	0.060
	(0.007)	(0.015)	(0.044)	(0.043)	(0.053)	(0.062)	(0.065)
Controls, leads & lags	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Country and time FEs	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	972	972	972	972	972	972	972
Number of groups	25	25	25	25	25	25	25
Canova CV test, β^H	0.847	-1.005	-1.722§	0.685	-1.576§	60.65§	6.102§
Canova CV test, β^L	-0.508	-1.636§	-0.863	-0.682	-0.837	-0.968	-0.938

Notes: SCC standard errors in parentheses: *** p<0.01, ** p<0.05, * p<0.1. § indicates that the Canova CV test statistic rejects the null of dynamic homogeneity at the 5% level.

Table A18. EPL counter-reforms and GDP growth, regular workers conditional on business cycle

VARIABLES	(1) GDP growth h=1	(2) GDP growth h=2	(3) GDP growth h=3	(4) GDP growth h=4	(5) GDP growth h=5	(6) GDP growth h=6	(7) GDP growth h=7
Counter EPL_r boom	-0.027	-0.082**	-0.134**	-0.145***	-0.156***	-0.153***	-0.158***
	(0.022)	(0.036)	(0.053)	(0.051)	(0.053)	(0.055)	(0.053)
Counter LMR_r, slump	0.014	0.046**	0.116*	0.121**	0.132*	0.133	0.131
	(0.009)	(0.017)	(0.063)	(0.055)	(0.066)	(0.082)	(0.086)
Controls, leads & lags	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Country and time FEs	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	972	972	972	972	972	972	972
Number of groups	25	25	25	25	25	25	25
Canova CV test, β^H	-1.372§	-1.015§	4.956§	1.636§	4.251§	2.184§	1.195§
Canova CV test, β^L	2.431§	1.028§	4.094§	0.625	0.906	2.755§	-1.624§

Notes: SCC standard errors in parentheses: *** p<0.01, ** p<0.05, * p<0.1. § indicates that the Canova CV test statistic rejects the null of dynamic homogeneity at the 5% level.

Table A19. EPL counter-reforms and GDP growth, temporary workers conditional on business cycle

VARIABLES	(1) GDP growth h=1	(2) GDP growth h=2	(3) GDP growth h=3	(4) GDP growth h=4	(5) GDP growth h=5	(6) GDP growth h=6	(7) GDP growth h=7
Counter EPL_t boom	-0.007	-0.001	-0.004	-0.018	-0.022	-0.029	-0.039
	(0.007)	(0.010)	(0.020)	(0.030)	(0.038)	(0.040)	(0.045)
Counter LMR_t slump	-0.006	-0.011	-0.017	-0.026	-0.041	-0.055	-0.065
	(0.008)	(0.016)	(0.027)	(0.042)	(0.055)	(0.063)	(0.074)
Controls, leads & lags	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Country and time FEs	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	972	972	972	972	972	972	972
Number of groups	25	25	25	25	25	25	25
Canova CV test, β^H	-0.821	-0.990	-8.451§	3.168§	-0.956	1.641§	1
Canova CV test, β^L	-0.876	-0.714	-0.643	-0.622	1.857§	-1.416§	-0.712

Notes: SCC standard errors in parentheses: *** p<0.01, ** p<0.05, * p<0.1. § indicates that the Canova CV test statistic rejects the null of dynamic homogeneity at the 5% level.

Table A20. Labour market counter-reforms and employment growth, conditional on business cycle

VARIABLES	(1) Employment growth h=1	(2) Employment growth h=2	(3) Employment growth h=3	(4) Employment growth h=4	(5) Employment growth h=5	(6) Employment growth h=6	(7) Employment growth h=7
Counter LMR, boom	-0.000	-0.011	-0.014	-0.017	-0.029	-0.032	-0.042
	(0.004)	(0.012)	(0.017)	(0.022)	(0.026)	(0.027)	(0.028)
Counter LMR, slump	-0.002	0.002	-0.001	0.002	0.002	-0.000	-0.001
	(0.005)	(0.009)	(0.015)	(0.023)	(0.027)	(0.031)	(0.034)
Controls, leads & lags	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Country and time FEs	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	972	972	972	972	972	972	972
Number of groups	25	25	25	25	25	25	25
Canova CV test, β^H	-15.43§	-2.082§	-2.961§	-1.984§	-1.373§	-6.798§	-3.326§
Canova CV test, β^L	-0.769	-2.102§	-3.703§	-3.122§	-8.842§	-5.737§	-1.535§

Notes: SCC standard errors in parentheses: *** p<0.01, ** p<0.05, * p<0.1. § indicates that the Canova CV test statistic rejects the null of dynamic homogeneity at the 5% level.

Table A21. UB counter-reforms and employment growth, conditional on business cycle

VARIABLES	(1) Employment growth h=1	(2) Employment growth h=2	(3) Employment growth h=3	(4) Employment growth h=4	(5) Employment growth h=5	(6) Employment growth h=6	(7) Employment growth h=7
Counter UB, boom	0.001	-0.014	-0.015	-0.018	-0.032	-0.042	-0.059
	(0.004)	(0.020)	(0.023)	(0.025)	(0.029)	(0.034)	(0.040)
Counter UB, slump	-0.006	-0.008	-0.018	-0.021	-0.021	-0.025	-0.029
	(0.005)	(0.010)	(0.020)	(0.032)	(0.041)	(0.049)	(0.055)
Controls, leads & lags	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Country and time FEs	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	972	972	972	972	972	972	972
Number of groups	25	25	25	25	25	25	25
Canova CV test, β^H	5.709§	1.089§	0.746	46.87§	-1.263§	-1.058§	-0.618
Canova CV test, β^L	-1.232	-0.987	-1.241§	1.812§	0.871	0.657	0.760

Notes: SCC standard errors in parentheses: *** p<0.01, ** p<0.05, * p<0.1. § indicates that the Canova CV test statistic rejects the null of dynamic homogeneity at the 5% level.

Table A22. EPL counter-reforms and employment growth, regular and temporary workers conditional on business cycle

VARIABLES	(1) Employment growth h=1	(2) Employment growth h=2	(3) Employment growth h=3	(4) Employment growth h=4	(5) Employment growth h=5	(6) Employment growth h=6	(7) Employment growth h=7
Counter EPL, r&t boom	-0.003	-0.015	-0.031	-0.037	-0.047	-0.044	-0.040
	(0.008)	(0.022)	(0.038)	(0.052)	(0.059)	(0.059)	(0.060)
Counter LMR, r&t slump	0.002	0.014	0.028	0.034	0.036	0.035	0.028
	(0.008)	(0.014)	(0.023)	(0.030)	(0.034)	(0.034)	(0.036)
Controls, leads & lags	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Country and time FEs	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	972	972	972	972	972	972	972
Number of groups	25	25	25	25	25	25	25
Canova CV test, β^H	1.868§	1.055§	1.157§	-0.995	-1.027§	0.825	0.998
Canova CV test, β^L	-1.542§	-0.795	-0.934	-1.604§	-2.253§	-0.767	-0.777

Notes: SCC standard errors in parentheses: *** p<0.01, ** p<0.05, * p<0.1. § indicates that the Canova CV test statistic rejects the null of dynamic homogeneity at the 5% level.

Table A23. EPL counter-reforms and employment growth, regular workers conditional on business cycle

VARIABLES	(1) Employment growth h=1	(2) Employment growth h=2	(3) Employment growth h=3	(4) Employment growth h=4	(5) Employment growth h=5	(6) Employment growth h=6	(7) Employment growth h=7
Counter EPL_r boom	-0.014	-0.042*	-0.070	-0.093	-0.106	-0.109*	-0.114**
	(0.010)	(0.024)	(0.044)	(0.058)	(0.063)	(0.058)	(0.051)
Counter LMR_r, slump	0.006	0.026*	0.044**	0.063**	0.076***	0.084***	0.082***
	(0.010)	(0.013)	(0.022)	(0.027)	(0.028)	(0.027)	(0.028)
Controls, leads & lags	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Country and time FEs	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	972	972	972	972	972	972	972
Number of groups	25	25	25	25	25	25	25
Canova CV test, β^H	11.39§	-1.360§	-3.019§	-2.184§	-2.431§	-3.113§	7.174§
Canova CV test, β^L	0.661	0.637	1.270§	2.385§	1.885§	-1.414§	-1.406§

Notes: SCC standard errors in parentheses: *** p<0.01, ** p<0.05, * p<0.1. § indicates that the Canova CV test statistic rejects the null of dynamic homogeneity at the 5% level.

Table A24. EPL counter-reforms and employment growth, temporary workers conditional on business cycle

VARIABLES	(1) Employment growth h=1	(2) Employment growth h=2	(3) Employment growth h=3	(4) Employment growth h=4	(5) Employment growth h=5	(6) Employment growth h=6	(7) Employment growth h=7
Counter EPL_t boom	0.011***	0.024**	0.037*	0.050*	0.059	0.072*	0.085**
	(0.004)	(0.010)	(0.020)	(0.027)	(0.037)	(0.037)	(0.040)
Counter LMR_t slump	-0.003	0.001	0.003	-0.005	-0.026	-0.035	-0.055
	(0.006)	(0.015)	(0.026)	(0.034)	(0.047)	(0.053)	(0.059)
Controls, leads & lags	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Country and time FEs	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	972	972	972	972	972	972	972
Number of groups	25	25	25	25	25	25	25
Canova CV test, β^H	0.649	0.911	-4.286§	2.153§	4.139§	27.19§	1
Canova CV test, β^L	-93.97§	-0.821	-5.224§	-0.722	-0.593	-0.645	-0.734

Notes: SCC standard errors in parentheses: *** p<0.01, ** p<0.05, * p<0.1. § indicates that the Canova CV test statistic rejects the null of dynamic homogeneity at the 5% level.

Table A25. Labour market counter-reforms and GDP growth, stability of baseline estimates when each country is excluded one at the time

Country excluded	(1) GDP growth h=1	(2) GDP growth h=2	(3) GDP growth h=3	(4) GDP growth h=4	(5) GDP growth h=5	(6) GDP growth h=6	(7) GDP growth h=7
Austria	-0.0041	-0.0113	-0.0090	-0.0140	-0.0193	-0.0230	-0.0259
	(0.0024)	(0.0077)	(0.0121)	(0.0130)	(0.0141)	(0.0145)	(0.0147)
Australia	-0.0022	-0.0090	-0.0066	-0.0112	-0.0166	-0.0201	-0.0218
	(0.0022)	(0.0080)	(0.0126)	(0.0137)	(0.0150)	(0.0155)	(0.0155)
Belgium	-0.0032	-0.0096	-0.0071	-0.0116	-0.0164	-0.0196	-0.0226
	(0.0025)	(0.0080)	(0.0125)	(0.0137)	(0.0148)	(0.0153)	(0.0153)
Canada	-0.0032	-0.0092	-0.0067	-0.0109	-0.0161	-0.0192	-0.0223
	(0.0025)	(0.0079)	(0.0124)	(0.0135)	(0.0148)	(0.0152)	(0.0153)
Denmark	-0.0030	-0.0090	-0.0069	-0.0116	-0.0168	-0.0201	-0.0227
	(0.0025)	(0.0080)	(0.0125)	(0.0137)	(0.0150)	(0.0154)	(0.0155)
Finland	-0.0029	-0.0080	-0.0039	-0.0087	-0.0139	-0.0159	-0.0175
	(0.0030)	(0.0082)	(0.0125)	(0.0131)	(0.0143)	(0.0153)	(0.0157)
France	-0.0033	-0.0093	-0.0057	-0.0105	-0.0157	-0.0200	-0.0232
	(0.0029)	(0.0088)	(0.0137)	(0.0148)	(0.0156)	(0.0159)	(0.0158)
Germany	-0.0031	-0.0094	-0.0070	-0.0118	-0.0155	-0.0189	-0.0224
	(0.0027)	(0.0082)	(0.0131)	(0.0143)	(0.0155)	(0.0158)	(0.0159)
Greece	-0.0029	-0.0090	-0.0064	-0.0104	-0.0152	-0.0184	-0.0214
	(0.0024)	(0.0078)	(0.0123)	(0.0134)	(0.0148)	(0.0154)	(0.0156)
Iceland	-0.0030	-0.0086	-0.0058	-0.0097	-0.0145	-0.0180	-0.0212
	(0.0025)	(0.0079)	(0.0124)	(0.0136)	(0.0146)	(0.0150)	(0.0149)
Ireland	-0.0025	-0.0091	-0.0114	-0.0127	-0.0162	-0.0178	-0.0203
	(0.0020)	(0.0069)	(0.0088)	(0.0105)	(0.0112)	(0.0113)	(0.0112)
Italy	-0.0031	-0.0093	-0.0067	-0.0109	-0.0158	-0.0190	-0.0218
	(0.0025)	(0.0079)	(0.0124)	(0.0136)	(0.0148)	(0.0151)	(0.0153)
Japan	-0.0032	-0.0093	-0.0067	-0.0113	-0.0160	-0.0190	-0.0214
	(0.0025)	(0.0079)	(0.0124)	(0.0135)	(0.0146)	(0.0149)	(0.0149)
Luxembourg	-0.0030	-0.0085	-0.0056	-0.0092	-0.0138	-0.0162	-0.0187
	(0.0028)	(0.0081)	(0.0129)	(0.0140)	(0.0154)	(0.0160)	(0.0162)
Netherlands	-0.0027	-0.0087	-0.0057	-0.0107	-0.0153	-0.0181	-0.0209
	(0.0024)	(0.0079)	(0.0123)	(0.0137)	(0.0149)	(0.0153)	(0.0154)
New Zealand	-0.0040	-0.0115	-0.0089	-0.0135	-0.0176	-0.0210	-0.0234
	(0.0027)	(0.0080)	(0.0130)	(0.0143)	(0.0154)	(0.0158)	(0.0158)
Norway	-0.0039	-0.0109	-0.0084	-0.0128	-0.0178	-0.0220	-0.0275
	(0.0026)	(0.0085)	(0.0134)	(0.0151)	(0.0163)	(0.0167)	(0.0168)
Poland	-0.0027	-0.0079	-0.0049	-0.0098	-0.0157	-0.0198	-0.0232
	(0.0023)	(0.0075)	(0.0119)	(0.0129)	(0.0140)	(0.0145)	(0.0144)
Portugal	-0.0026	-0.0113	-0.0096	-0.0141	-0.0206	-0.0249	-0.0290
	(0.0030)	(0.0085)	(0.0133)	(0.0144)	(0.0159)	(0.0171)	(0.0173)
Republic of Korea	-0.0029	-0.0054	-0.0031	-0.0080	-0.0124	-0.0150	-0.0150
	(0.0027)	(0.0066)	(0.0123)	(0.0139)	(0.0155)	(0.0163)	(0.0163)
Spain	-0.0039	-0.0109	-0.0084	-0.0129	-0.0188	-0.0221	-0.0261*
	(0.0026)	(0.0084)	(0.0126)	(0.0132)	(0.0150)	(0.0151)	(0.0150)
Sweden	-0.0033	-0.0078	-0.0034	-0.0075	-0.0128	-0.0164	-0.0197
	(0.0027)	(0.0082)	(0.0125)	(0.0136)	(0.0151)	(0.0155)	(0.0157)
Switzerland	-0.0041	-0.0094	-0.0061	-0.0116	-0.0156	-0.0180	-0.0204
	(0.0031)	(0.0085)	(0.0132)	(0.0147)	(0.0155)	(0.0160)	(0.0158)
United Kingdom	-0.0032	-0.0098	-0.0075	-0.0115	-0.0169	-0.0197	-0.0222
	(0.0026)	(0.0083)	(0.0131)	(0.0144)	(0.0156)	(0.0163)	(0.0164)
United States	-0.0033	-0.0095	-0.0076	-0.0130	-0.0186	-0.0222	-0.0251
	(0.0025)	(0.0080)	(0.0124)	(0.0133)	(0.0145)	(0.0150)	(0.0153)

Notes: SCC standard errors in parentheses: *** p<0.01, ** p<0.05, * p<0.1.

Table A26. Labour market counter-reforms and employment growth, stability of baseline estimates when each country is excluded one at the time

Country excluded	(1) Employment growth h=1	(2) Employment growth h=2	(3) Employment growth h=3	(4) Employment growth h=4	(5) Employment growth h=5	(6) Employment growth h=6	(7) Employment growth h=7
Austria	-0.0016	-0.0043	-0.0079	-0.0086	-0.0143	-0.0176	-0.0226*
	(0.0021)	(0.0048)	(0.0073)	(0.0095)	(0.0107)	(0.0113)	(0.0123)
Australia	-0.0013	-0.0035	-0.0071	-0.0072	-0.0121	-0.0152	-0.0197
	(0.0020)	(0.0046)	(0.0070)	(0.0094)	(0.0108)	(0.0114)	(0.0124)
Belgium	-0.0015	-0.0040	-0.0077	-0.0080	-0.0133	-0.0166	-0.0212*
	(0.0021)	(0.0045)	(0.0070)	(0.0092)	(0.0105)	(0.0111)	(0.0121)
Canada	-0.0016	-0.0040	-0.0075	-0.0075	-0.0128	-0.0159	-0.0208*
	(0.0021)	(0.0045)	(0.0069)	(0.0091)	(0.0104)	(0.0110)	(0.0120)
Denmark	-0.0014	-0.0037	-0.0073	-0.0077	-0.0131	-0.0165	-0.0212*
	(0.0021)	(0.0046)	(0.0070)	(0.0093)	(0.0107)	(0.0113)	(0.0123)
Finland	-0.0010	-0.0022	-0.0040	-0.0034	-0.0075	-0.0094	-0.0127
	(0.0023)	(0.0047)	(0.0068)	(0.0082)	(0.0094)	(0.0107)	(0.0123)
France	-0.0011	-0.0033	-0.0064	-0.0069	-0.0120	-0.0161	-0.0210
	(0.0024)	(0.0050)	(0.0077)	(0.0098)	(0.0110)	(0.0116)	(0.0125)
Germany	-0.0013	-0.0034	-0.0072	-0.0073	-0.0133	-0.0167	-0.0215*
	(0.0022)	(0.0048)	(0.0076)	(0.0098)	(0.0112)	(0.0118)	(0.0126)
Greece	-0.0017	-0.0043	-0.0079	-0.0079	-0.0124	-0.0150	-0.0193
	(0.0020)	(0.0045)	(0.0071)	(0.0094)	(0.0107)	(0.0113)	(0.0123)
Iceland	-0.0014	-0.0037	-0.0072	-0.0075	-0.0126	-0.0155	-0.0200*
	(0.0020)	(0.0045)	(0.0069)	(0.0092)	(0.0105)	(0.0111)	(0.0118)
Ireland	-0.0012	-0.0056	-0.0098	-0.0104	-0.0136	-0.0156	-0.0195
	(0.0015)	(0.0043)	(0.0066)	(0.0089)	(0.0104)	(0.0110)	(0.0119)
Italy	-0.0015	-0.0038	-0.0074	-0.0074	-0.0126	-0.0156	-0.0200
	(0.0020)	(0.0046)	(0.0069)	(0.0093)	(0.0107)	(0.0113)	(0.0123)
Japan	-0.0015	-0.0038	-0.0073	-0.0078	-0.0129	-0.0158	-0.0202
	(0.0020)	(0.0045)	(0.0069)	(0.0092)	(0.0106)	(0.0111)	(0.0121)
Luxembourg	-0.0012	-0.0032	-0.0061	-0.0059	-0.0106	-0.0133	-0.0175
	(0.0019)	(0.0044)	(0.0067)	(0.0090)	(0.0105)	(0.0111)	(0.0121)
Netherlands	-0.0013	-0.0036	-0.0074	-0.0077	-0.0125	-0.0153	-0.0197
	(0.0020)	(0.0046)	(0.0069)	(0.0093)	(0.0106)	(0.0112)	(0.0122)
New Zealand	-0.0015	-0.0039	-0.0076	-0.0084	-0.0137	-0.0169	-0.0215*
	(0.0021)	(0.0046)	(0.0068)	(0.0091)	(0.0105)	(0.0111)	(0.0121)
Norway	-0.0018	-0.0046	-0.0082	-0.0084	-0.0127	-0.0153	-0.0203
	(0.0022)	(0.0049)	(0.0076)	(0.0102)	(0.0121)	(0.0130)	(0.0140)
Poland	-0.0014	-0.0036	-0.0067	-0.0066	-0.0116	-0.0149	-0.0197
	(0.0021)	(0.0046)	(0.0069)	(0.0090)	(0.0102)	(0.0107)	(0.0117)
Portugal	-0.0017	-0.0048	-0.0093	-0.0103	-0.0168	-0.0213*	-0.0276**
	(0.0020)	(0.0048)	(0.0071)	(0.0094)	(0.0104)	(0.0113)	(0.0125)
Republic of Korea	-0.0016	-0.0019	-0.0060	-0.0073	-0.0125	-0.0160	-0.0195
	(0.0022)	(0.0037)	(0.0064)	(0.0090)	(0.0104)	(0.0110)	(0.0117)
Spain	-0.0019	-0.0056	-0.0086	-0.0086	-0.0140	-0.0169*	-0.0223**
	(0.0019)	(0.0043)	(0.0062)	(0.0078)	(0.0092)	(0.0093)	(0.0097)
Sweden	-0.0017	-0.0041	-0.0074	-0.0079	-0.0132	-0.0169	-0.0221
	(0.0021)	(0.0049)	(0.0075)	(0.0099)	(0.0113)	(0.0120)	(0.0131)
Switzerland	-0.0019	-0.0036	-0.0061	-0.0058	-0.0107	-0.0133	-0.0171
	(0.0025)	(0.0048)	(0.0071)	(0.0095)	(0.0108)	(0.0112)	(0.0119)
United Kingdom	-0.0015	-0.0043	-0.0080	-0.0082	-0.0137	-0.0171	-0.0223
	(0.0022)	(0.0049)	(0.0075)	(0.0099)	(0.0114)	(0.0122)	(0.0133)
United States	-0.0016	-0.0039	-0.0079	-0.0089	-0.0144	-0.0178	-0.0225*
	(0.0020)	(0.0046)	(0.0068)	(0.0089)	(0.0102)	(0.0106)	(0.0115)

Notes: SCC standard errors in parentheses: *** p<0.01, ** p<0.05, * p<0.1.