Labor and Product Market Reforms in Advanced Economies: Fiscal Costs, Gains, and Support

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Key questions

Background and motivation:

- Europe still in need of reforms but appetite for them is waning…
- …in part due to concerns regarding modest short-term gains, especially under slack and limited monetary and fiscal policy space (IMF April 2016 WEO)…
- …as well as broader reform fatigue and persistent political obstacles to reform implementation

Key questions:

- Would reforms help (re)build fiscal space?
- If so, could temporary fiscal support and incentives enhance their short-term effects and facilitate implementation, *without* adding to the debt burden?
- Under what conditions? What about countries without fiscal space?

Three complementary approaches

Empirical Analysis

Estimates average impact of major labor and product market reforms on budgetary outcomes

(using method similar to IMF April 2016 WEO chapter)

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Numerical Simulations

Assesses conditions under which reform + fiscal support packages may be self-financing

(numerical framework, see supplementary slides)

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Case Studies and Counterfactual Analysis

Documents use of fiscal and non-fiscal incentives alongside reform implementation

(five case studies: FIN, DEU, IRL, NLD, UK)

Fiscal support to and payoffs from reforms

Key findings

1. **Most labor and product market reforms strengthen medium-term public finances indirectly by raising output**

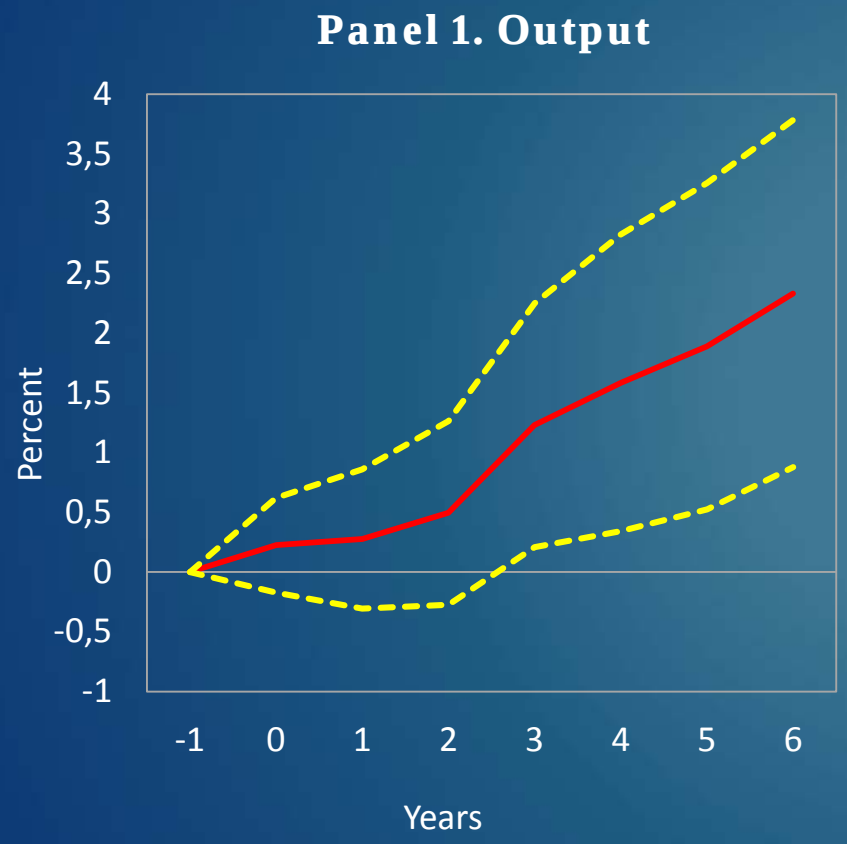
2. **Impact of labor market reforms on fiscal outcomes depends on cyclical conditions—weaker for EPL and UB reforms under slack**

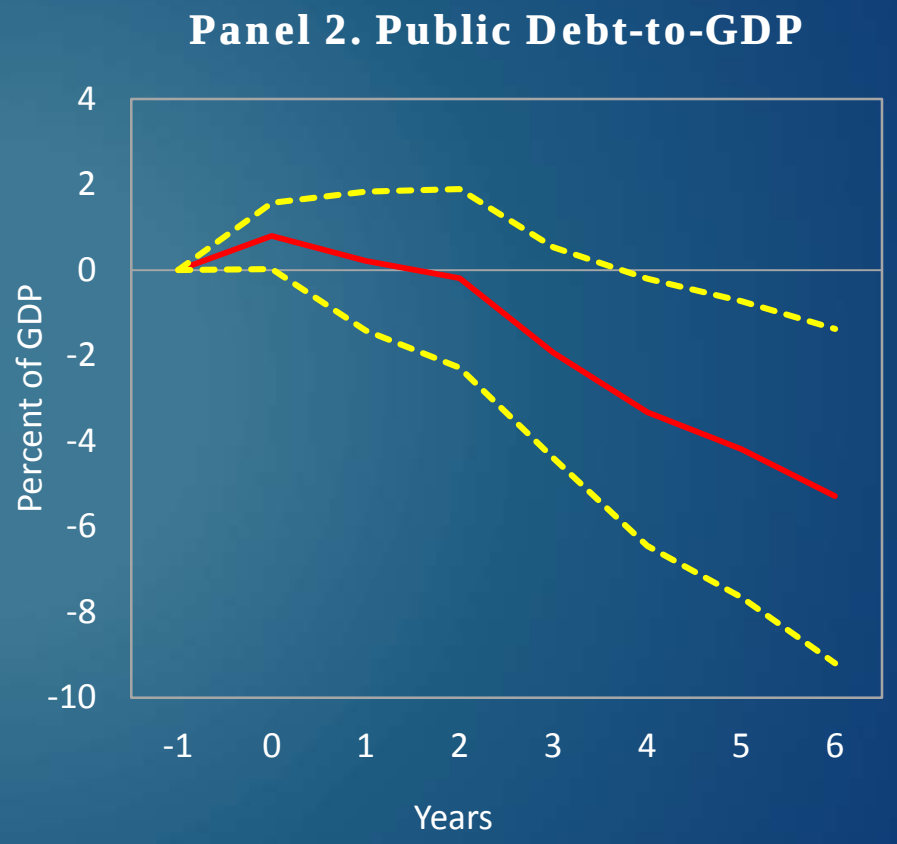
3. **Package combining reforms with credible, temporary, well-designed fiscal support can yield net medium-term fiscal *gain*—especially for some labor market reforms under weak cyclical conditions**

4. **Fiscal and non-fiscal incentives can, and have facilitated reforms by alleviating transition and political costs, alongside strong commitment to reform**

The Effects of Reforms on Fiscal Positions

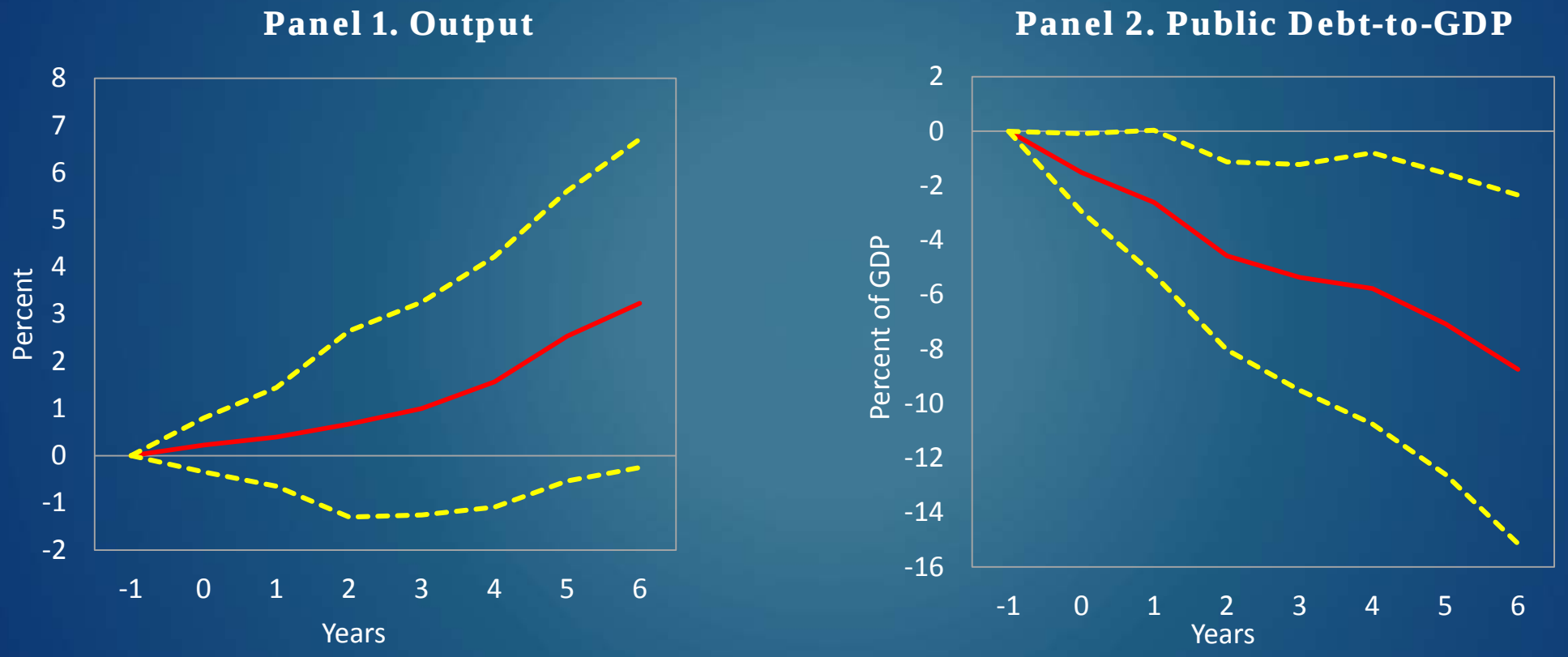
Fiscal gains from product market reforms...





Note: Based on empirical analysis where t=0 is the year of the major reform shock. Solid red lines denote the average estimated response to the shock; dashed yellow lines denote 90 percent confidence intervals.

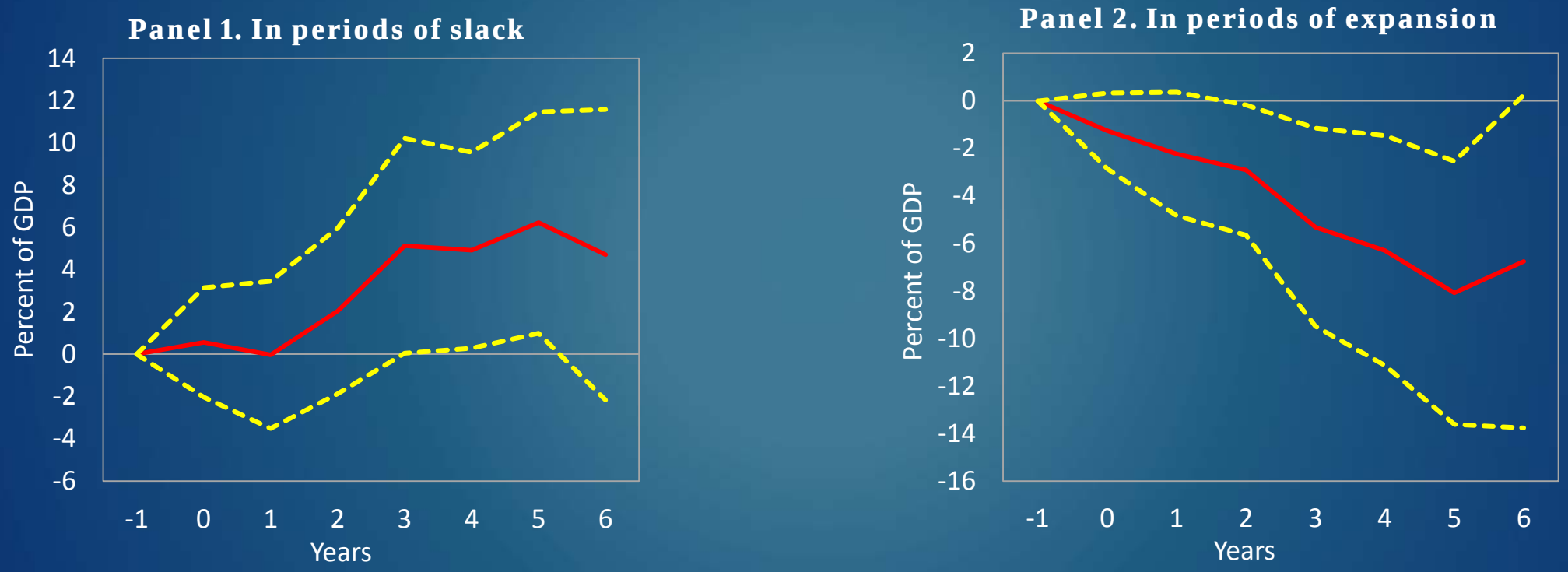
...and unemployment benefit reforms



Note: Based on empirical analysis where t=0 is the year of the major reform shock . Solid red lines denote the average estimated response to the shock; dashed yellow lines denote 90 percent confidence intervals.

Fiscal effects of some reforms depend on cyclical conditions: EPL reform

Impact on Public Debt-to-GDP Ratio

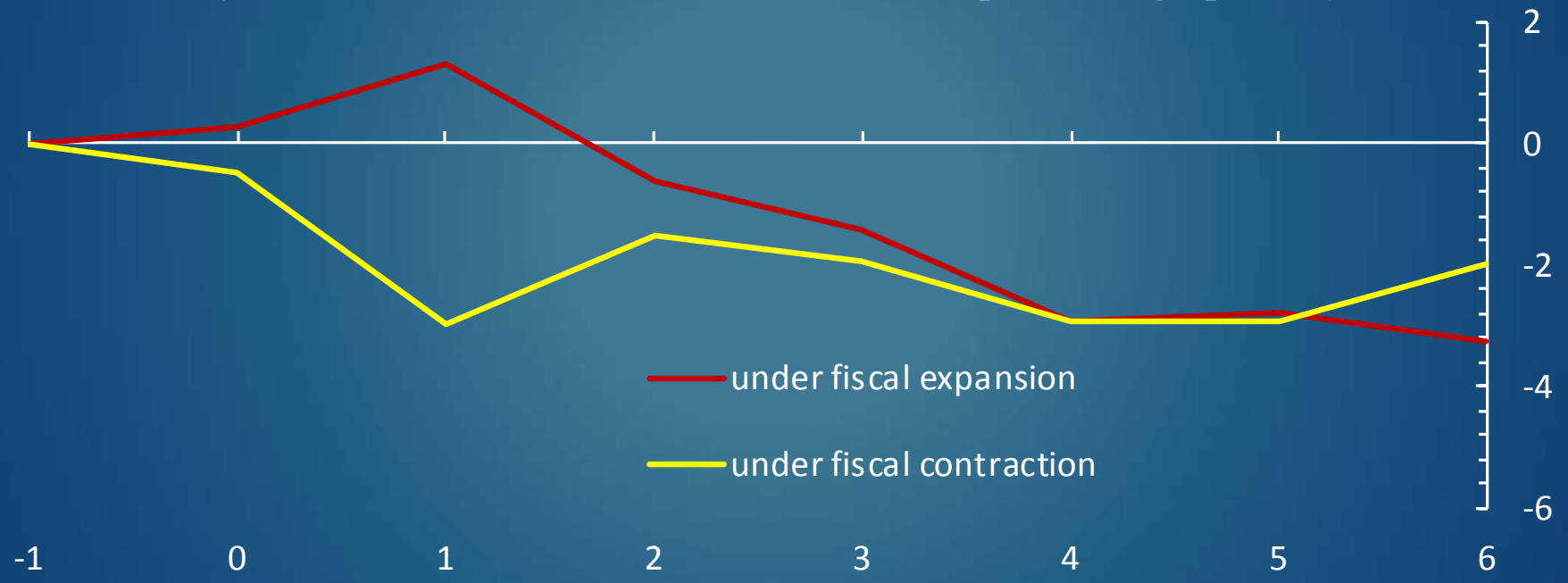


Note: Based on empirical analysis where t=0 is the year of the major reform shock. Solid yellow lines denote the estimated response to the reform shock; dashed yellow lines denote 90 percent confidence intervals. The solid red line shows the unconditional result, i.e., the average estimated impact across different growth regimes. The growth regime (expansion vs. slack) is defined using a smooth transition function as in Auerbach and Gorodnichenko (2012), which takes values between 0 and 1 depending on the extent to which the economy is in recession. The charts show estimated impulse responses for large and low values of the smooth transition function, that is, assuming F(z)=0.75 and F(z)=0.25

Case for Reforms and Fiscal Support Package

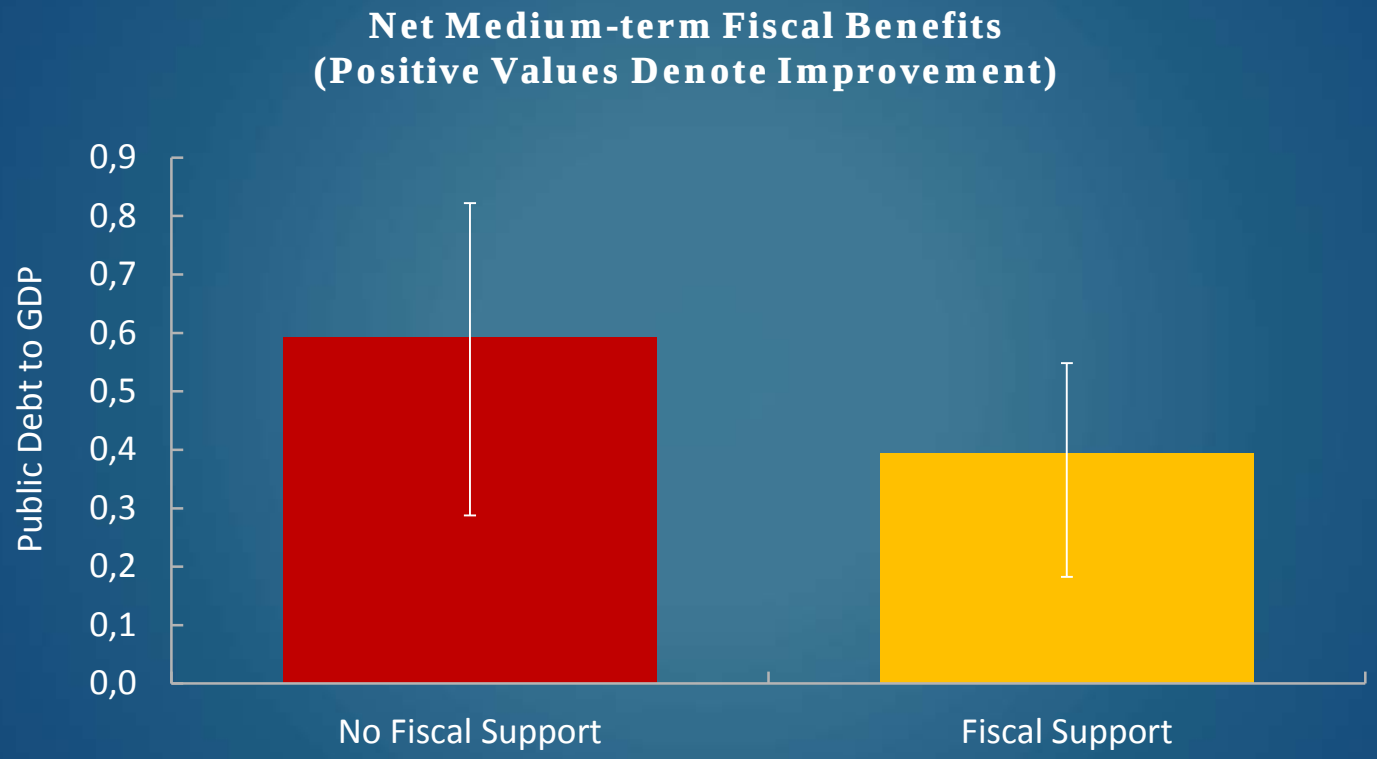
Economic case: fiscal *gain* from combining EPL reform with fiscal support under weak cyclical conditions

Effect of major EPL reforms on public debt-to-GDP ratio under fiscal expansions vs. fiscal contractions
(deviation from no reform scenario, in percentage points)



Note: t=0 is the year of the shock. The solid blue (red) lines represent the average results under fiscal contractions (expansions). The fiscal policy regime (expansion vs. contraction) is defined using a smooth transition function as in Auerbach and Gorodnichenko (2012), which takes values between 0 and 1 depending on the extent to which the economy is experimenting fiscal contraction. See supplementary slides for details. The charts show estimated impulse responses for large and low values of the smooth transition function, that is, assuming F(z)=0.75 and F(z)=0.25. F(z)=0.75 (0.25) typically corresponds in the sample to an unanticipated government consumption shocks of about -0.85(+0.85) percent of GDP. See SDN Appendix for details.

Political economy case: net fiscal gain of product market reform remain even with upfront fiscal support



Note: Based on numerical simulations including estimated output effects of reforms and current country-specific parameters for marginal tax rates, the real interest rate and the trend growth rate of the economy, the bars represent the net fiscal gains associated with product market reform, as measured by the improvement in the overall fiscal balance relative to the no-reform scenario over the medium term. The red bar represents the average net medium-term fiscal gain without an upfront fiscal support. The yellow bar captures the average gains associated with reforms supported by 1% of GDP fiscal support. The error bars show minimum and maximum values in OECD countries. The medium-term multiplier for the fiscal support is conservatively assumed to be zero in this exercise. See SDN Appendix for details.

Sensitivity of results to key parameters

Medium-term fiscal gain from policy package combining reform with temporary fiscal support could be higher if:

- Real interest rates close to or below real growth rates (as in several economies)
- Fiscal support raised medium-term output by focusing on measures that raise potential (e.g. infrastructure) or if hysteresis

Medium-term gain may not materialize if:

- Real interest rates >> real growth rates or if real rates rise due to the fiscal support
- Reform effects lower due to weak reforms and poor implementation

Case studies show widespread use of reform incentives

Labor market reforms supported by:

- Income tax cuts, targeted at low-income groups
- Broad reform packages

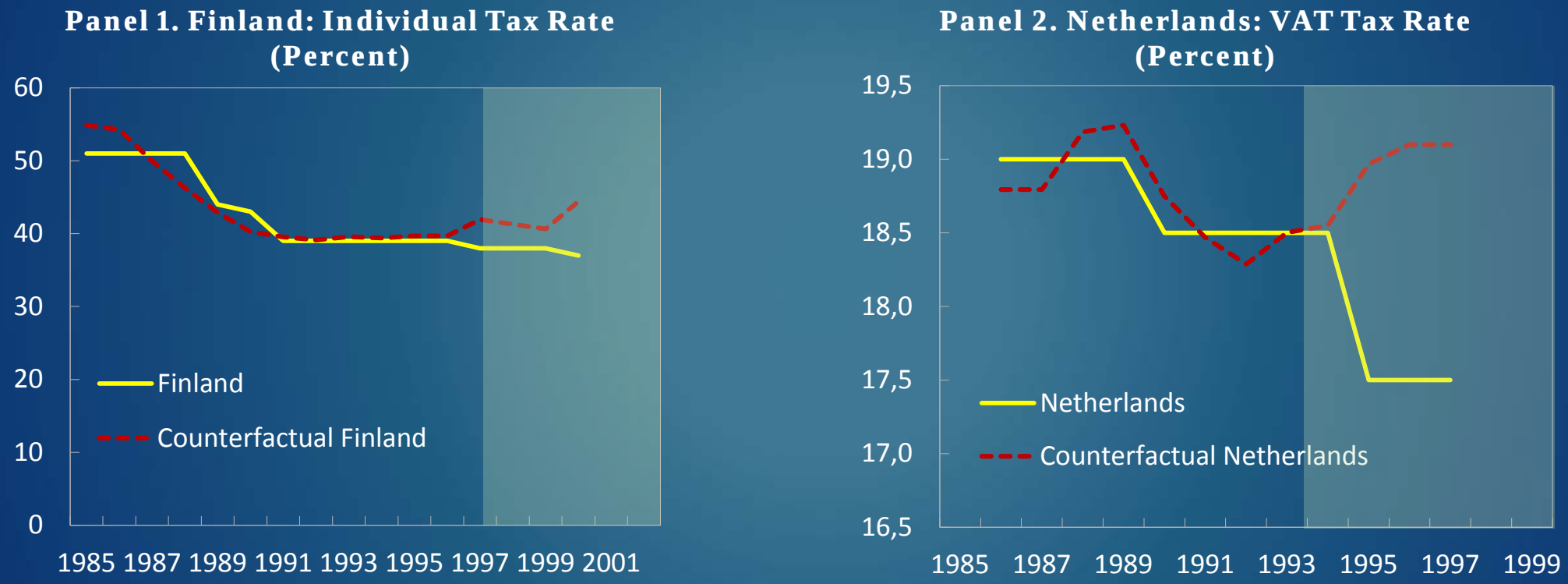
Product market reforms supported by:

- Corporate tax cuts
- Fiscal sweeteners for privatization/ex-post fiscal buy-outs

Common feature: strong ownership and political support for reforms

Reforms have often been accompanied by tax cuts

How Reformers Fared Relative to Counterfactuals, Selected Countries

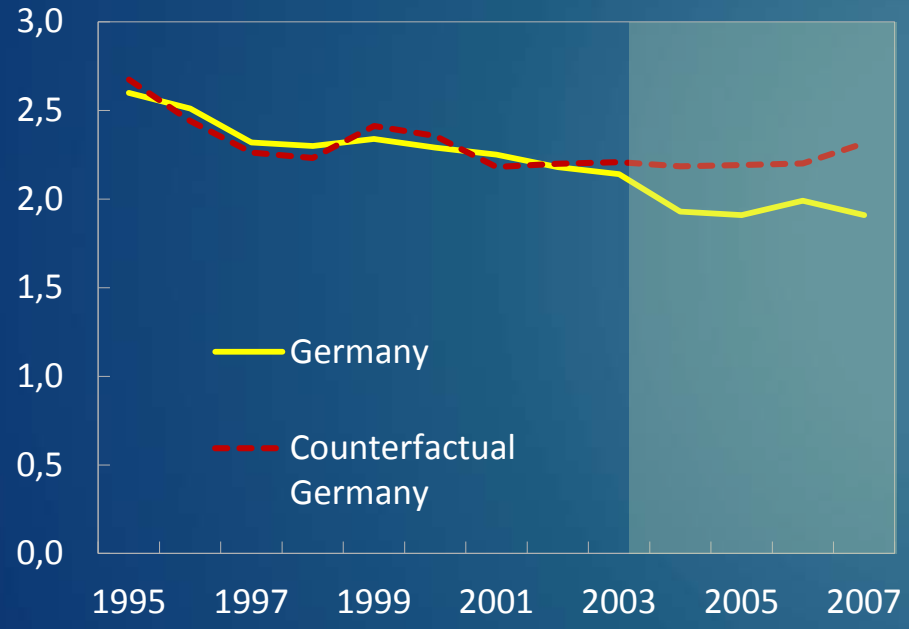


Note: Counterfactual analysis using the Synthetic Control Method (SCM), a data driven technique which identifies a synthetic counterfactual country that could be compared with the reforming country. The counterfactual analysis was based on reform phases instead of individual reforms as many reforms were implemented in packages resulting in overlaps between the impact of individual reforms. The determination of the beginning of the reform phase in countries was based on judgment given the leads and lags in the interaction between fiscal measures and structural reforms. The selected dates are Finland (1997) and the Netherlands (1994). This approach allows us to measure the deviations between the performance of reforming countries and their non-reforming counterfactuals.

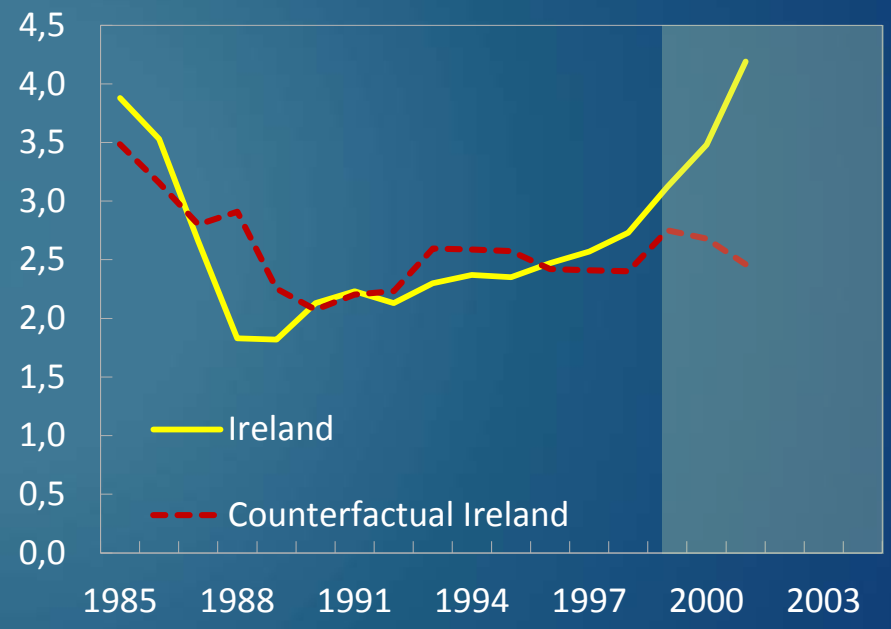
Fiscal incentives sometimes offset by harmful decline in public investment when fiscal consolidation was pursued

How Reformers Fared Relative to Counterfactuals, Selected Countries

Panel 1. Germany: Public Investment (Percent of GDP)



Panel 2. Ireland: Public Investment (Percent of GDP)



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Policy implications

Countries with fiscal space

- Could provide temporary upfront reform support, especially if there is economic slack

- Target support to stimulate economy (including in long term, e.g. infrastructure) and reduce adjustment costs (e.g. for the most vulnerable)

Policy implications (continued)

Countries without fiscal space

- Careful prioritization and sequencing of reforms is crucial
- Focus on lower cost product market reforms and budget-neutral labor market reform packages (deliver gradual output and fiscal gains)
- Other labor market reforms can be designed to frontload gains (passing law with delayed implementation…)
- If fiscal incentives are provided, do not offset their cost by cutting public investment

Design and implementation of fiscal rules should encompass flexibility to incentivize reforms and acknowledge their dynamic fiscal gains

Ownership and credible commitment to major reforms as well as medium-term fiscal framework: essential pre-conditions in all of the above

Thank you!

Supplementary slides

Reform shocks: new IMF dataset on major labor and product market reforms (26 advanced economies, 1970-2013)

• "Narrative" approach to identify major legislative and regulatory actions (for PMR, EPL, UB) based on *OECD Economic Surveys* and additional country-specific sources.

• Alternative criteria to identify reforms: (i) normative language; (ii) actions mentioned several times across different surveys and/or in retrospective assessments; (iii) actions corresponding to large changes in OECD indicators.

• Advantages compared to existing databases: (i) identification of major events; (ii) exact timing; (iii) larger country and time coverage ; (iv) areas of reforms for which no indicator exists (e.g. UB duration, conditionality, structural activation policies); (v) additional info for selected reforms (retail trade and professional services).

• Shortcomings: (i) reforms may be endogenous ->issue addressed in the empirical analysis; (ii) heterogeneity of reform shocks ->average historical impact estimated.

Examples of reforms

Announcement Year	Implementation/ Scored Year	Area	Country	Content	Normative language	Mention in reports	Large change in OECD indicator
1982	1984	Product market (telecommunications)	USA	antitrust suit against AT&T	The most important deregulatory move in telecommunications came with the antitrust suit against AT&T by the U.S. ...Competition for long-distance voice services entered a new phase in 1984..	1986, 1989, 2004	no
1993	mid-1994/1995	Employment protection legislation	Spain	a draft law modifying the current law regulating employment. It introduces....dismissals of permanent workers;	... far-reaching labor market reforms aimed at lifting barriers to job creation. A decree was passed at the end of December 1993 and a draft has been presented to Parliament and is expected to become law by the middle of 1994	no	yes for 1995
n.a.	1994	Unemployment benefits	Denmark	Labor market reforms of 1994: activation of the unemployed, limiting the period of unemployment benefits, enforcing job availability criteria, compulsory full-time activation, stricter eligibility criteria.	The measures taken ...are steps in the right direction,...raining and education offers are fully operational, a foundation has been established for reducing the duration of unemployment benefits on a sustainable basis..	2000	yes for 1994 (replacement rate), other aspects (duration, eligibility, active policies) not captured

Empirical analysis

- Macro effects:

Baseline:

$$y_{t+k,i} - y_{t-1,i} = \alpha_i + \gamma_t + \beta_k R_{i,t} + \theta X_{i,t} + \varepsilon_{i,t}$$

Slack/Policies:

$$y_{t+k,i} - y_{t-1,i} = \alpha_i + \gamma_t + \beta_k^L F(z_{i,t}) R_{i,t} + \beta_k^H (1 - F(z_{i,t})) R_{i,t} + \theta X_{i,t} + \varepsilon_{i,t}$$

y = Debt, Balance, CAB, Output;
R = reform shock (see next slide);
X = lagged debt and output growth, recession dummies, past reforms (slack, policies); growth forecasts (robustness check)
F(.) = smooth transition function (F = 1 ⇔ major recession/fiscal contraction);

Numerical analysis: framework (for EPL and PMR reforms)

• ST impact of reform and fiscal expansion (including their interaction) on Y and D:

(1) $\Delta Y = \mu\Delta G + \epsilon_0 R + \epsilon_1(\Delta G)R$

(2) $\Delta D = (1-\mu\tau)\Delta G - \tau(\epsilon_0+\epsilon_1\Delta G)R$

Where $\epsilon_0+\epsilon_1$ = direct + indirect (through interaction with fiscal expansion) ST impact of R on Y, which may differ depending on macro conditions (for EPL). NB: For PMR, we set $\epsilon_1 = 0$.

➔ Implied annual financing burden to maintain stable D/Y over LT (NB: 5-year horizon here):

(3) $(r-g)\Delta D = (r-g)[(1-\mu\tau)\Delta G - \tau(\epsilon_0+\epsilon_1\Delta G)R\ ]$

• LT impact of reform and fiscal expansion (including their interaction) on Y and T (tax receipts):

(4) $\Delta Y = (\gamma_0 + \gamma_1\Delta G)R$

(5) $\tau\Delta Y = \tau(\gamma_0 + \gamma_1\Delta G)R$

Where $\gamma_0+\gamma_1$ = direct + indirect (through interaction with fiscal expansion) LT impact of R on Y

• Combining (3) and (5) leads to the self-financing condition:

(6) $(r-g)[\ (1-\mu\tau)\Delta G - \tau(\epsilon_0+\epsilon_1\Delta G)R\ ] - \tau(\gamma_0 + \gamma_1\Delta G)R < 0$

Synthetic Control Method for Event Studies (Germany, Netherlands, Finland, and Ireland)

- Objective: "Build" a counterfactual path of fiscal variable (*Ft*) in absence of reforms

- Counterfactual is a linear combination potential "control" (non-reformers) countries:

$$\sum_{j=2}^{J+1} w_j^* F_{jt}, \text{ where } \sum_{j=2}^{J+1} w_j^* = 1$$

- Optimal weights w_j^* are obtained by minimizing the distance between pre-reform characteristics of the reformer and the control group: $X_1 - X_0 w$

- Following Abadie et al. (2010), the lead-specific effects of reform for the country are:

$$\hat{\alpha}_{1t} = F_{1t} - \sum_{j=2}^{J+1} w_j^* F_{jt}, \text{ for } t \in \{T_0 + 1, \ldots, 5\}$$

- Example of synthetic control weights :
  - Germany's 2003 reforms: France (77%); Australia (16%); Japan (7%)
  - Ireland's 1999 reforms: Norway (59%); Belgium (41%)