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Labor and Product Market Reforms in Advanced Economies: Fiscal Costs, Gains, and Support—Case Studies of Finland, Germany, Ireland, the Netherlands, and the United Kingdom

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Labor and Product Market Reforms in Advanced Economies: Fiscal Costs, Gains, and Support—Case Studies of Finland, Germany, Ireland, the Netherlands, and the United Kingdom

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CONTENTS

AN OVERVIEW

1. **Objective.** The case studies complement the empirical analysis by documenting: (i) the use of fiscal policy and measures to incentivize structural reforms and (ii) the impact of structural reforms on a range of fiscal variables. In addition, the case studies also highlight (iii) the existence of non-fiscal factors that helped push reforms forward, such as a strong political and economic mandate for reforms, legally mandated social partnership arrangements, etc. The former could reduce the need for fiscal incentives to implement reforms, whereas the latter could increase the likelihood of reform packages comprising quid-pro-quo agreements of fiscal sweeteners in exchange for reforms. The benefit of case studies is that they can identify granular information regarding the interaction between fiscal policy and structural reforms beyond those captured by fiscal and macroeconomic aggregates.

2. **Country selection.** The case studies focus on a group of large and small advanced economies: Finland, Germany, Ireland, the Republic of the Kingdom of Netherlands, and the United Kingdom. These countries were selected because they were some of the biggest reformers of the past three decades, implementing a large number and broad range of reforms. They generally also have a record of fiscal prudence during their reform years. Together, their structural reform episodes capture the use of a broad range of fiscal measures to support structural reforms.[1] The case studies generally focus on major reform phases during 1980–2007 as this is the time period over which they implemented major reforms. This time frame eliminates more recent reforms undertaken in the aftermath of the global crisis.

3. **Coverage of reforms.** With few exceptions, the case studies largely focus on the types of reforms documented in the 2016 IMF database (Duval and others 2016, forthcoming) to ensure consistency with the empirical analysis. They include the following broad categories: the labor tax wedge, active labor market policies (ALMP), unemployment benefit reforms, employment protection reform as well as a range of product market reforms.[2] However, in practice, the reforms undertaken under each category can be very specific and detailed; the case studies focus on all these measures. To the extent possible, they document the use of fiscal and non-fiscal incentives for <u>all</u> reforms undertaken in the five countries during reform episodes in order to provide a more systematic picture of the use of fiscal tools to aid reforms in the biggest European reformers.

4. **The narrative approach.** The narrative approach is based on the following framework:

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[1] It is also helpful that the impact of structural reforms on output in each of the selected counties has been analyzed using counterfactual analysis (Adhikari and others, 2016). Such analysis provides a key piece of information regarding the output channel for explaining the medium-term effects of structural reforms on debt.

[2] Other important reforms were also implemented in the case study countries during this period, e.g., in the housing market or in pension and health systems or financial sector, but such reforms are outside the scope of the paper.

- The exercise focuses on the nexus between fiscal and structural policies, regardless of the strength, design and impact of the reforms, as well as whether or not the reforms were fully or partially completed, permanent or reversed over time. Nor does the discussion take into account whether the fiscal incentives were desirable and properly designed and executed, or had other unintended consequences over time.

- There are long leads and lags in the interaction of fiscal parameters and reforms, e.g., fiscal incentives can coincide with, or even predate the initiation of the structural reform. The case studies seek to document all such interactions over the arc of the reform instead of those at the date of reform completion.

- The word fiscal "incentive" is used somewhat loosely. It covers measures implemented with a clear and well documented intent to gain the acceptance of reforms. But it also includes measures that were implemented simultaneously, and perhaps with a different objective in mind, but nevertheless helped progress the reforms, for example by mitigating the short-term negative effects on aggregate demand.

5. Synthetic Control Method. The narrative approach in the case studies is complemented by an empirical counterfactual assessment of the effect of structural reform phases on fiscal variables using the Synthetic Control Method (SCM). In such analyses, each reforming country's fiscal variable (debt, fiscal balance, and public investment as a percent of GDP as well as tax rates) is compared against that of a counterfactual scenario with no reforms. The synthetic counterfactual country is constructed from a control group of other advanced economies which have not implemented reforms but for which the level and evolution of a specific fiscal variable look similar to the reforming country before the reforms took place. This counterfactual is calculated as a weighted average of observations from all the non-treated (non-reforming) countries. The counterfactual analysis was conducted for Finland, Germany, Ireland and the Netherlands, but not the United Kingdom. This is due to the unavailability of a comprehensive set of the relevant data in the control group ten years before the start of the United Kingdom's reform phase in 1979 which would be required to construct a synthetic counterfactual for the United Kingdom with a reasonably good fit.[3] [4] The counterfactual analysis was also not conducted for all reform phases because of data limitations for earlier years. The next chapter discusses methodological aspects as well as the pros and cons of such analysis in greater detail.

[3] In most of the cases, except for some slow-moving variables such as tax rates in some countries, the pre-treatment fit was sufficiently good as evidenced by low root mean square prediction error (RMSPE) of the outcome variables.

[4] Resorting to reform phases instead of estimating the effect of every single reform is also justified by the fact that (i) reforms were in most of the cases implemented as packages (that included other policies), and (ii) time distance between major reform measures was relatively short.

A. Main Findings

6. **The economic and political context for reforms**. Countries generally undertook labor and product market reforms during of difficult economic conditions marked by high unemployment, a stagnant economy, and pressures on public finances. Several significant reforms were preceded by strong ownership and a growing realization and an emerging consensus that reforms were unavoidable. Such was the case, for example, in the lead up to Germany's Hartz reforms in the early 2000s; the United Kingdom's sweeping reforms of the 1980s; Finland's post-crisis reforms of the 1990s; Irish reforms during the 1980s; and, reforms in the Netherlands in the 1980s and 1990s). Some governments explicitly ran on a reform mandate and succeeded, signaling a general consensus for reforms (e.g., the election of the Thatcher government in 1979). Reforms were also triggered by the need to adhere to European Union laws and to maintain fiscal discipline in order to reduce government debt.

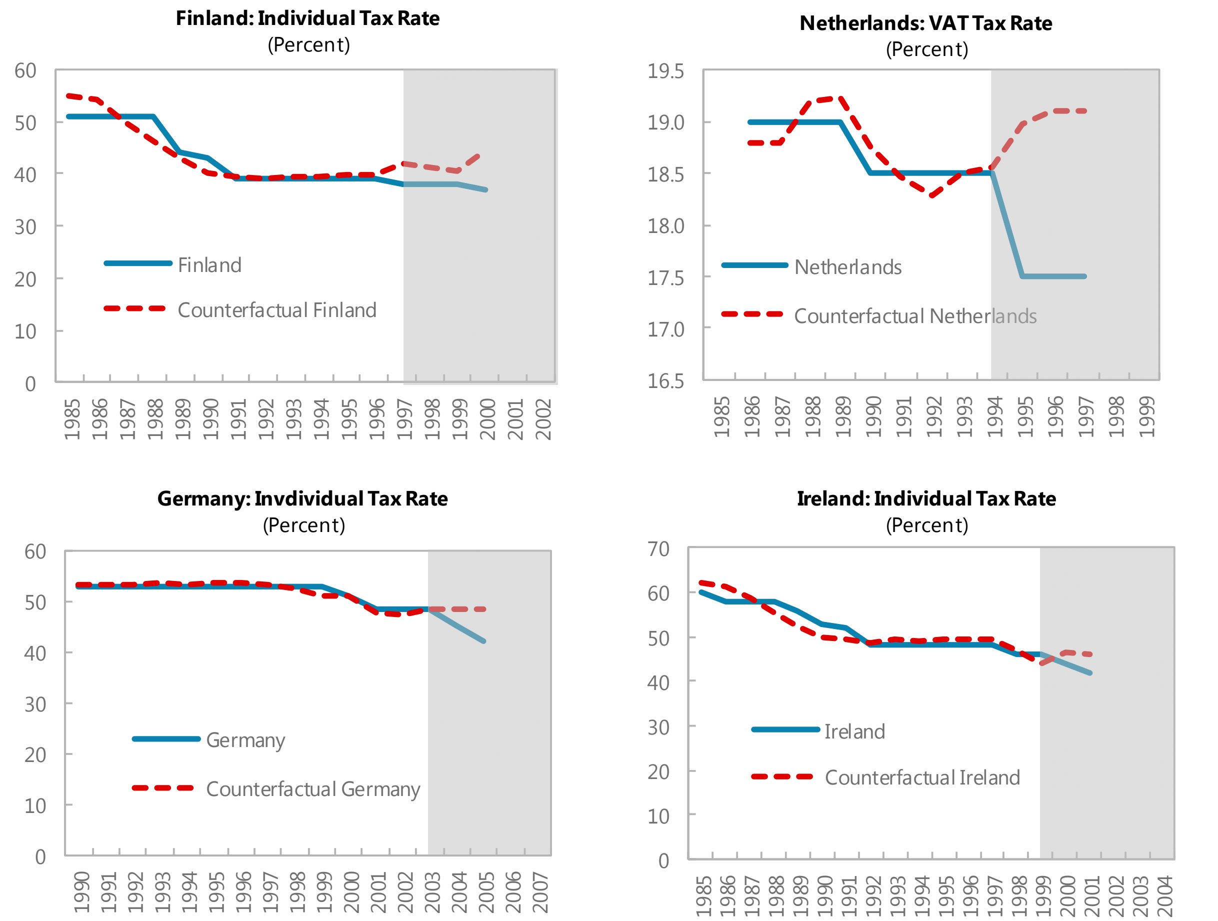
Incentivizing labor market reforms

7. **Reforms.** A broad range of labor market reforms were implemented in the case study countries during 1980–2007 in exchange for fiscal sweeteners. Reforms included: wage moderation and greater wage flexibility together with an easing of centralized collective bargaining, the reform of employment protection legislation for regular workers, the restructuring and rationalization of unemployment benefits, and the strengthening of ALMPs.

8. **A range of fiscal sweeteners were used to incentivize the above reforms**. They comprised both permanent and temporary measures. While such incentives helped facilitate reforms, in some cases reforms were reversed over time. A prominent example of such reversal are the unemployment benefit reforms in Germany of the 1990s which were subsequently reversed in 1999. The reforms were initiated once again in the early 2000s (Hartz reforms) and were also accompanied by tax cuts.

9. **Income tax cuts.** Cuts in personal income tax rates were widely used to secure buy-in for labor market reforms, especially the reduction and rationalization of unemployment benefits and social safety nets and wage moderation (in all case study countries). There was a special focus on reducing the **tax burden for low incomes** (all countries); introducing progressively higher income tax thresholds to benefit the poor (Finland, Germany, Ireland, the United Kingdom), and higher personal tax allowances (the United Kingdom). These policies were implemented with the intention of mitigating the impact of reforms on the most vulnerable groups. Counterfactual analysis of broad reform episodes involving multiple reforms in Finland, Germany, Ireland, and the Netherlands suggests similar conclusions (Figure 1). Labor market reforms were associated with lower tax rates relative to non-reforming counterfactual countries, including personal income tax cuts (Finland), the VAT rate (the Netherlands), personal income tax and corporate tax rates (Germany) and a combination of rate cuts (Ireland).

Figure 1. Reforms and Tax Rates



Sources: WEO, and IMF Staff Estimates.

10. Some countries simultaneously implemented **a broader reform package** to boost growth, jobs and employment as well as support the unemployed. Consistent with IMF (2014), the case studies also find that reforms of unemployment and social safety net benefits tended to be accompanied by fiscal structural reforms such as the lowering of non-wage labor costs for low-income workers (the labor tax wedge) and the expansion of active labor market policies targeted at low-skilled workers (including the youth) and the long-term unemployed (Finland, Germany, Netherlands and the United Kingdom). For example, there was direct budget support for ALMPs such as wage subsidies (Germany) or temporary tax cuts (Netherlands) for firms hiring the long-term unemployed; the creation of subsidized jobs (Netherlands, Germany, the United Kingdom); and, the introduction of subsidies for firms hiring disabled workers (the Netherlands). Some countries also introduced greater flexibility in employment protection (e.g., the subsidization of part time work in Germany after the age of 55) and implemented product market reforms to increase competition and the business climate in order to facilitate job creation and employment (Finland, Ireland, the United Kingdom).

11. **Non-fiscal incentives were quite important as well.** Given the prominent role of social partnerships[5] in all countries, a number of other trade-offs also facilitated reforms, such as the use of grandfathering to reduce the burden of adjustment on existing workers from a reform (e.g., the Netherlands for disability insurance; the reduction in unemployment benefits in Germany in the 1990s) or a reduction in working hours (the Netherlands). A myriad of other factors also helped reduce the political costs of reforms, such as the gradual decline in the strength of centralized collective bargaining and trade unions (Netherlands, Ireland and the United Kingdom), an effective prioritization of reforms with the most important and politically easiest reforms implemented first (Germany's Hartz reforms and the reform of disability insurance in Netherlands in the early 2000s); and, the use of the EU funding to support active labor market reforms (Ireland).

Promoting product market reforms

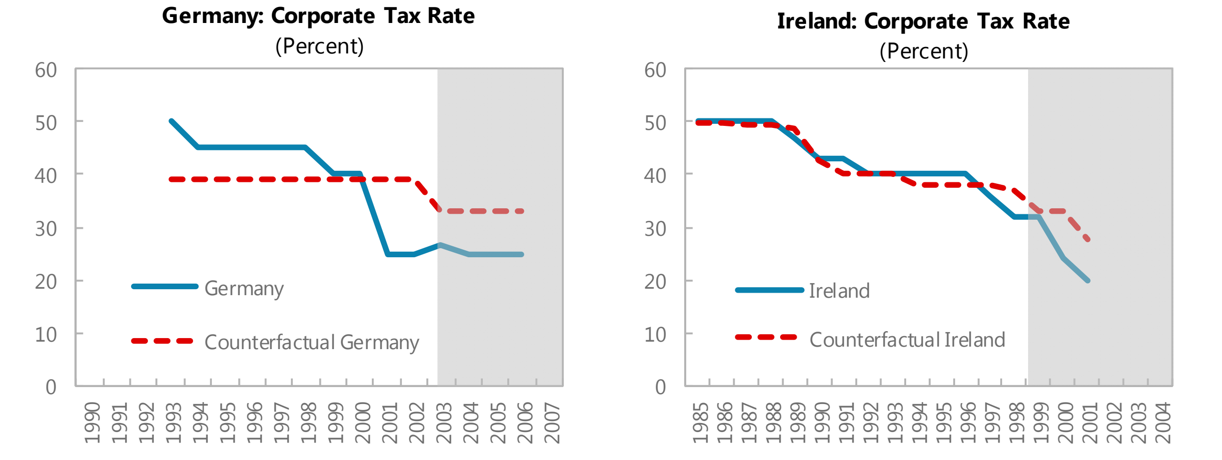
12. Product market reforms implemented by the case study countries included the harmonization of competition policies with EU laws; the deregulation and privatization of utilities, network industries and state owned enterprises; improvements in the business climate including through the deregulation of various sectors. The fiscal-reform interlinkages varied across these different types of reforms.

13. Reforms to improve the business climate were generally accompanied by **corporate tax cuts** (Germany, Ireland, and the United Kingdom), although not in Finland or the Netherlands. For example, in the late 1990s, Germany improved the access to capital for small and medium-sized enterprises, reduced barriers to trades, and simplified procedures for starting new businesses. At the same time, it reduced the corporate tax burden for SMEs and shifted them to larger corporations. These conclusions are borne out by the counterfactual analysis (Figure 2) which shows that corporate tax rates tended to be higher for the non-reforming synthetic counterfactual country compared to those in the case studies.

14. There was a significant use of **fiscal sweeteners** to initiate privatization. This took many forms, such as the reduction of debt related pension liabilities (Ireland), share options for employees (Ireland, the United Kingdom). A special case was the privatization of east Germany companies during 1990–95 which included agreements on a lower selling price, grants, debt cancellation, redundancy payments, budget support for the wage bill, and special early retirement schemes in exchange for firm commitments regarding jobs and investment. All this was supported by ALMP policies, including public works programs to support the unemployed.

[5] For example, the 1982 Wassenaar Agreement in Netherlands between trade unions, employers and the government to lower wages in exchange for shorter work weeks, and, four partnership agreements between the government and social partners in Ireland during 1987–2003. The latter included detailed agreements on the development of a wide range of state services, including social welfare transfers, and also privatization of state assets in exchange for fiscal discipline. Over time, such agreements included the community and voluntary sector, broadly representing the unemployed and other groups not represented by employers and trade unions.

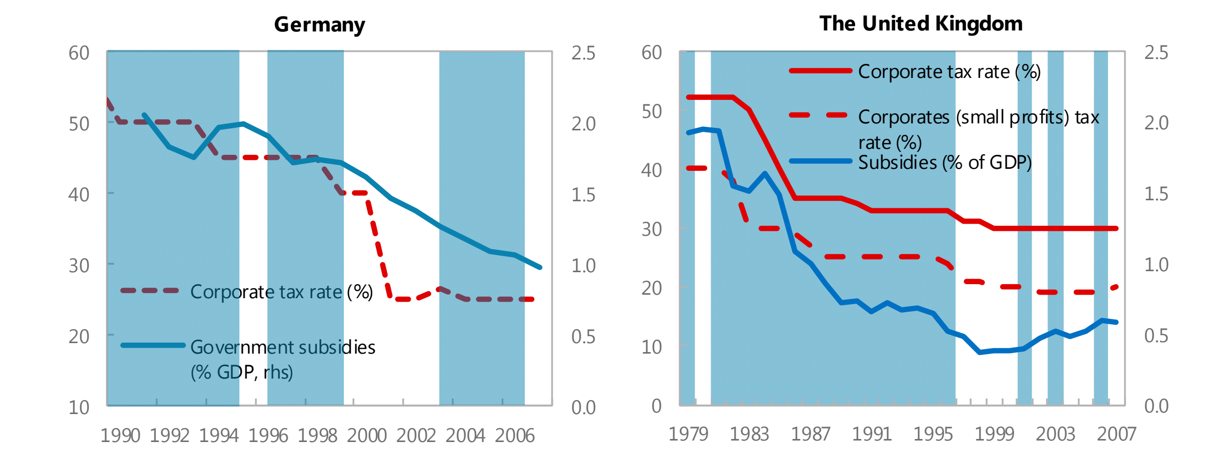
Figure 2. Product Market Reforms and Corporate Tax Rates



Sources: WEO and IMF Staff Estimates.

15. Given the strong public sector footprint in several sectors in European countries in the post-war era, the privatization of state owned enterprises helped reduce **public sector subsidies** over time (Germany, Finland, Ireland, and the United Kingdom) and remove impending future infrastructure investment expenditures and debts off its balance sheets (Figures 3). Privatization receipts were used to service government debt (Finland, Germany); for investment and R&D (Finland); to strengthen the privatized entity (Finland) and set aside to cover future pension liabilities (Ireland).

Figure 3. Product Market Reforms, Corporate Tax Rates, and Government Subsidies



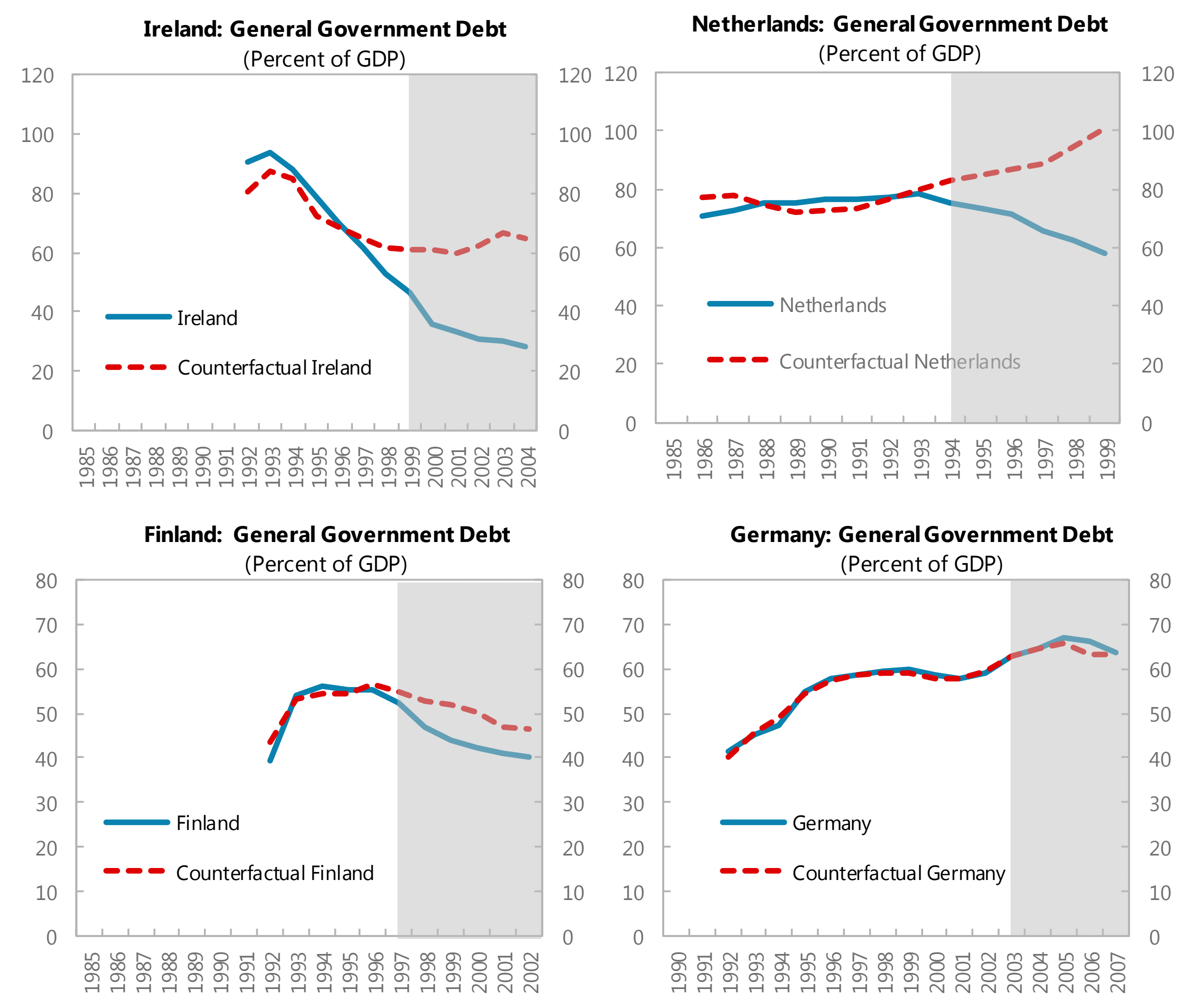
Sources: WEO, Office for National Statistics, "Privatisation", RP 14/61, House of Commons Library, 2014, and IMF staff estimates.

16. **Non-fiscal incentives.** Reforms which included deregulation and the enhancement of competition were largely fostered by the need to comply with EU Directives (all countries). In addition, some reforms were incentivized by grandfathering: during the liberalization of professional services in the Netherlands, some professions were grandfathered (e.g., there was a two-year transition period for public notaries). There are a few cases when fiscal sweeteners were used—such as a special tax relief to write off the capital losses from the deregulation of the taxi industry in Ireland—but they were the exception rather than the rule.

Impact of reforms on fiscal outcomes

17. The counterfactual analysis concludes that countries that provided some fiscal support for reforms (Ireland and the Netherlands) witnessed a larger reduction in public debt relative to the non-reforming counterfactual during the post-reform years (Figure 4). In contrast, countries that pursued fiscal consolidation while reforming experienced a smaller decline in general government debt (Finland) or no decline in general government debt relative to its synthetic counterfactual (Germany). Structural reform phases tended to be associated with improved overall balance when accompanied by some fiscal support, especially given the difficult economic conditions preceding the adoption of reforms. This was likely because of the growth effects of stronger public investment**.**

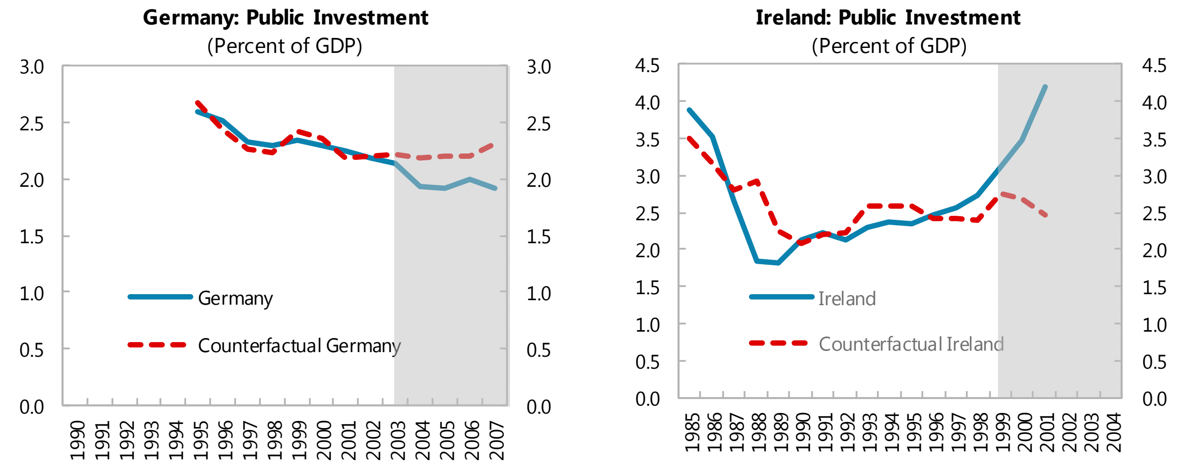
Figure 4. Impact of Fiscal Stance on Public Debt



Sources: WEO and IMF Staff Estimates.

18. Fiscal consolidation was financed by cuts in public investment. Germany and Finland embarked on overall fiscal consolidation while implementing structural reforms, in contrast with Ireland and the Netherlands which provided fiscal support. The former countries experienced declines in public investment which were significantly larger than in the counterfactual countries or on a declining trend following the reform (Finland). Ireland, on the other hand, was able to increase public investment well above that of its counterfactual country (Figure 5).

Figure 5. Impact of Fiscal Stance on Public Investment



Sources: IMF, WEO; and IMF Staff Estimates.

MEASURING THE EFFECTS OF STRUCTURAL REFORMS ON FISCAL VARIABLES

This chapter provides quantitative estimates of the effects of structural reforms on a number of fiscal variables. The estimates are based on counterfactual analysis produced on the basis of the synthetic control method (SCM). The analysis is produced for four of the five case study countries—Finland, Germany, Ireland and the Netherlands—but not for the United Kingdom (discussed below).

A. The Synthetic Control Method

1. The SCM was developed by Abadie and Gardeazabal (2003) and extended in Abadie, Diamond, and Hainmueller (2010). It is an interesting alternative tool to assess the effects of large scale events or programs. Cavallo et al. (2013) use the SCM to investigate the effects of natural disasters on per capita income. Billmeier and Nannicini (2013) apply the technique to measure the effects of trade liberalization on output. Gathani et al. (2013) use a similar methodology to investigate the impact of the introduction of a one-stop shop for business registration on new firm creation. Recently, Adhikari et al. (2016) investigated the effects of structural reforms on output for a number of case studies focusing on advanced economies.

2. Under this approach, a weighted combination of potential control countries—henceforth referred to as the synthetic control or the counterfactual—is constructed to approximate the most relevant characteristics of the reforming country affected by the intervention (i.e., the reform). The SCM can be used to estimate the counterfactual evolution of the outcome variables (in this case, public debt, fiscal balance, public investment, tax rates) in the counterfactual countries, i.e., in the absence of the reform, following the date at which reforms are implemented in the reforming country. To get a sense of the average treatment effect (i.e., the average effect of the reform), deviations between each treated or reforming country and its corresponding synthetic control (or counterfactual) are computed.

3. The SCM has two advantages. One advantage lies in the fact that the counterfactual outcome of the treated (reforming) country is estimated transparently. In other words, the counterfactual outcome is a linear combination of a number of untreated countries (i.e., countries which have not reformed). The countries that form the synthetic control unit (or the counterfactual) are selected on the basis of an algorithm which ensures that they are similar to the treated (reforming) country before the treatment (reform date) with respect to the behavior of the fiscal outcome variable being assessed. A second advantage of the SCM is that, unlike most of the previous estimators used in the literature, it can help deal with endogeneity from omitted variables bias by accounting for the presence of time-varying unobservable factors. The SCM provides an improvement over panel models such as fixed effects or difference-in-differences, which can account for only time-invariant unobservable factors.

4. Nevertheless, the SCM is not without limitations. One limitation is that it does not account for the fact that structural reforms might be triggered by the expectation of higher growth and improved fiscal outcomes in the future as well as expectations regarding the political buy-in of reforms packages, thus leading to endogeneity bias. For example, structural reforms are in most cases are implemented in bad times to improve economic outcomes. Expectations about future impacts can influence economic decisions of the private sector before the reform kicks in. In addition, reform choices are not independent from the political context which implies that some reforms can be easier to implement compared with others. This selection bias is not directly and fully addressed by the SCM. Another drawback of the SCM is that it does not account for the impact of other big events or shocks that could occur simultaneously or after the structural reform has been implemented, and influence the results (such as other reforms, social and political instability, changes to the macroeconomic policy mix). However, this caveat could also be extended to all non-experimental reduced-form causal analysis (Cavallo et al., 2013). Finally, the SCM assumes that the main driver of the results (here, the treatment or the structural reform shock) does not affect the set of counterfactual countries or controls directly or indirectly (i.e., there is a stable unit treatment value assumption, SUTVA). But this may not necessarily be the case if the country affected by the reform is large and if the control group is composed mostly of close trading partners. These can seriously bias the results upward or downward.

B. Empirical Design

Determining the counterfactual

5. The SCM examines whether structural reforms (R) in a given economy in year T leads to higher or lower values of various fiscal measures in the reforming country in years $T+i$ (with $i \in [1, 5]$) compared to similar countries that have not implemented such reforms. The fiscal measures considered in this chapter are: public debt, overall government balance, cyclically adjusted overall balance and public investment, all as a share of GDP as well as the corporate income tax, personal income tax and VAT tax rates.

6. To isolate the impact of structural reforms from other influences, the analysis uses the SCM as a way of finding the counterfactual (i.e., how the trajectory of fiscal variables would have evolved had the structural reform not been implemented). The primary motivation to use synthetic control is the belief that the effect of a particular intervention can be empirically assessed only by comparison with the appropriate counterfactual.

7. The procedure for implementing the SCM is discussed in Appendix I. The usual measures of statistical significance, relying on regression-based standard errors, is not relevant in such analysis because the uncertainty regarding the estimations of the causal effect of structural reforms does not come from uncertainty about the aggregate data. The analysis uses placebo effects to makes inferences about the statistical significance of the impact.

Inference in comparative case studies

8. Following Abadie and Gardeazabal (2003), Abadie et al. (2010), and Cavallo et al. (2013), exact inference techniques, similar to permutation tests, are employed to conduct inference in comparative case studies (see Appendix I). The idea in Abadie et al. (2010) consists in assuming that every other country in the control sample for a given country exposed to the reform implements a similar (and imaginary) structural reform in the same year. We then produce counterfactual synthetic control for each "placebo control" (i.e. every other country in the control sample implements a similar (and imaginary) structural reform in the same year). These synthetic counterfactuals are then used to calculate the impact of the placebo structural reform in every year following its (non)-occurrence. This allows for assessing whether the effect estimated by the synthetic control for the country exposed to a particular structural reform is large relative to the effect estimated for a country randomly chosen (which was not exposed to the reform at all).

Data and sample

9. The sample is composed of high-income OECD countries observed over the period 1985–2014, except for Germany where the sample starts in 1995 for data on public investment. The sample length is conditional on the availability of time series data for all the variables mobilized for the study. This constrains the paper to focus on reform episodes between 1990 and the 2000s. Key macroeconomic variables (fiscal ratios) are from the IMF's World Economic Outlook. Statutory tax rates are from Vegh and Vuletin (2015), national country tax offices and IMF desk tables.

10. For the implementation of the SCM, the sample is restricted to countries that have at least 25 consecutive time-series data on all the variables. In order to select a comparable control group that can provide a counterfactual with a reasonably good fit, the pool of donor countries is restricted in several ways. First, those countries that also had a major reform within a window of five years before or after the treatment year (i.e., the year in which our case study country implemented reforms) are removed from the donor pool. Second, if there are any missing values for the outcome variable in the sample window, then that country is dropped from the donor pool. The sample period is also restricted to 10 pre-treatment/reform years to better calibrate the synthetic unit (counterfactual) and at most 5 post-treatment periods to evaluate the impact of the treatment. In most of the cases, except for some slow-moving variables such as tax rates in some countries, the pre-treatment fit was sufficiently good as evidenced by low root mean square prediction error (RMSPE) of the outcome variables.

11. A crucial piece of information is the selection of the reform dates. For all countries, the treatment year (i.e. reform date or the launch of a major reform wave) is built from the reform database recently produced by the Duval et al. (2016). Focusing on the date of the launch of the reforms instead of the date of the completion of the reform wave helps take into account possible fiscal incentives granted at the time of the reform negotiations. Resorting to reform phases instead of estimating the effect of every single reform is also justified by the fact that (i) reforms were in most of the cases implemented as packages (that included other policies), and (ii) time distance between some major reform measures was relatively short.

C. Fiscal Impact of Structural Reforms

12. The results of the SCM estimates are discussed below for four of the five countries selected for the case studies: Finland, Germany, Ireland, and the Netherlands. The estimations are not done for the U.K. because of the unavailability of a comprehensive set of the relevant data ten years before the start of the reform phase in 1979 to construct a synthetic counterfactual for the U.K. with a reasonably good statistical fit. Furthermore, for some variables and countries, the estimated effects are not always statistically relevant, especially when the SCM does not provide a reasonable good pre-treatment fit of the data (especially in the case of some slow-moving variables such as tax rates in certain countries).

Finland 1997

13. Finland is an interesting case study of reforms launched amidst ongoing fiscal consolidation but in presence of relatively higher growth. Public debt-to-GDP ratio went down significantly in the years following the reforms compared with the counterfactual scenario, supported by higher growth and cuts in public investment.[6] Interestingly, some fiscal incentives were provided through cuts in the personal income tax rate around the reform time (Figure 1).

- The public debt-to-GDP ratio is lower than in the counterfactual scenario of no reforms helped by a restrictive fiscal stance in the years following the reforms. The cyclically-adjusted primary balance ratio improved significantly in the years surrounding the reforms.
- However, the strengthening of fiscal balances in the post-reform years was associated with substantial cuts in the public investment ratio compared to the counterfactual. Public investment ratio dropped gradually but remained above the no-reform counterfactual scenario.
- On the tax front, the analysis indicates that the personal income tax rate dropped more than what would have occurred in absence of reforms, suggesting that an incentive through lower personal income tax was likely provided concomitantly. Results regarding the corporate income tax estimates are not shown as they are not statistically relevant because of the poor pre-treatment fit of the data.

[6] It is also worth noting that a gradual decline in investment ratio in Finland took place amid the adoption of a medium-term expenditure framework to support fiscal consolidation plans.

Germany 2003

14. Growth was weak and unemployment was high when Germany launched its reform plan. The fiscal position measured by the public debt-to-GDP ratio is found to be not very different from the counterfactual scenario of no reforms, despite substantial fiscal consolidation supported by cuts in public investment.

- However, there is a robust indication that in absence of the reforms, the observed cuts in individual tax rate would not have occurred otherwise, likely suggesting the presence of some fiscal incentives (see Figure 2).

- The cyclically adjusted primary balance is significantly higher than what would have occurred in the counterfactual scenario of no reforms. However, the pre-treatment fit of the data is not very strong, suggesting that the results for this variable should be taken with caution.

- Fiscal consolidation was triggered by cuts in government expenditure ratios, including public investment. Compared with the counterfactual scenario, public investment is substantially lower and on a downward path in the years surrounding the reforms. However, the overall contractionary fiscal stance was somewhat dampened by cuts in personal income tax, whereas there is no evidence that other statutory tax rates were cut in a statistically-significant way.

Ireland 1999[7]

15. The counterfactual analysis for Ireland indicates a post-reform strengthening of the country's fiscal position which is not surprising, given the evidence of fiscal stimulus including tax cuts, introduced during and after the inception of reforms (Figure 3). The Irish economy was growing substantially, helping to ease the implementation of reforms.

- Public debt dropped sharply in Ireland compared with the counterfactual scenario. The gap is substantial and statistically significant. The high growth environment played a critical factor in curbing the debt-to-GDP ratio.

- The fiscal stance (cyclically-adjusted primary balance) was accommodative compared with the counterfactual scenario, due to higher public investment at the same time as the product market reforms and reduced tax rates across the board.

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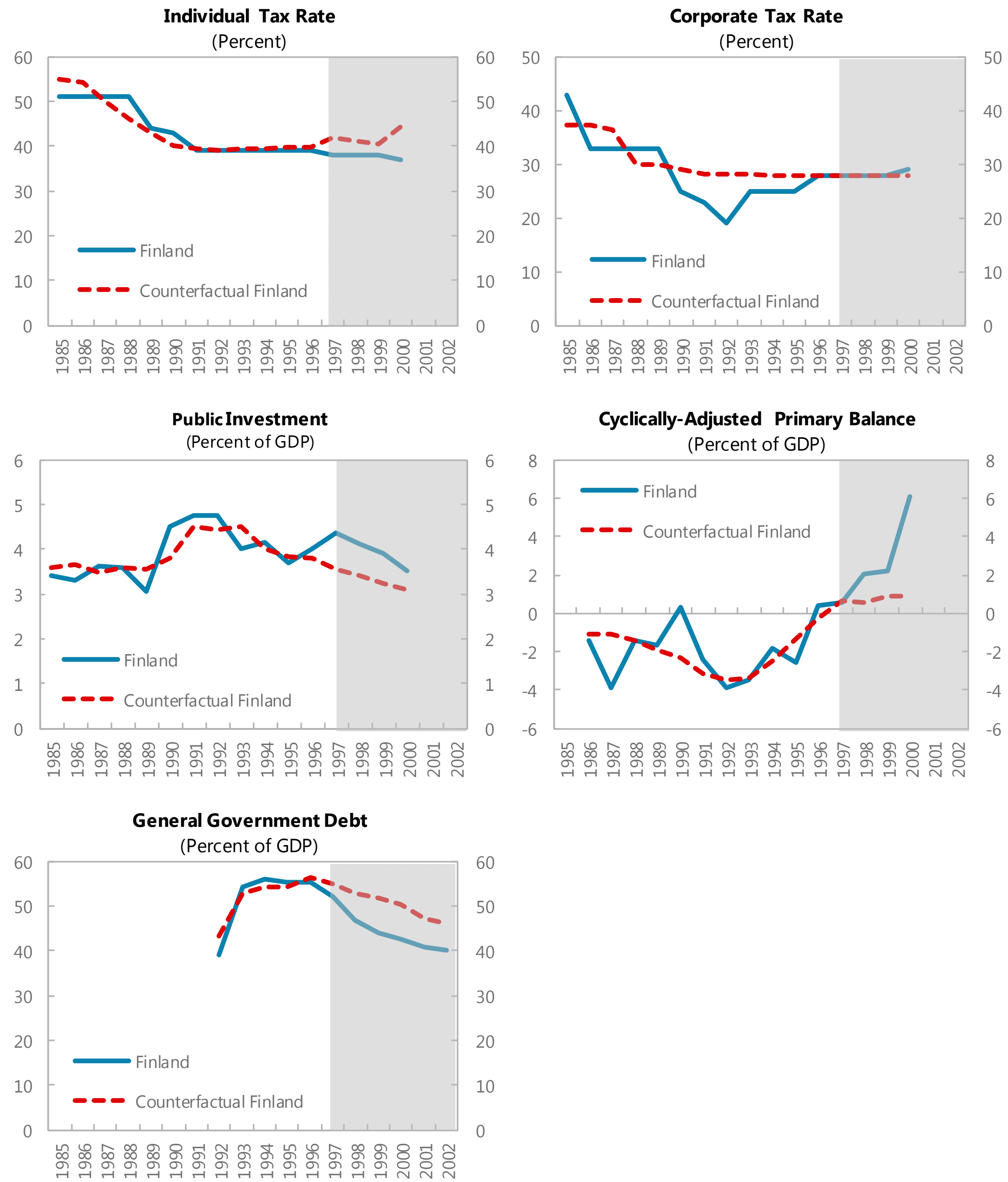
[7] For Ireland, the Duval et al. (2016) reform database also identifies a labor market reform in 1994 (cut in unemployment benefits). The 1999 reform studied in this paragraph refers to a product market reform phase, which gives enough pre-reform treatment data to implement the SCM.

Netherlands 1994

16. The results for Netherlands show that public debt-to-GDP significantly dropped after the 1994 reform wave started, despite a somewhat small fiscal stimulus soon afterwards in 1995 (the cyclically-adjusted balance deteriorated briefly in 1995 likely on account of the reduced VAT standard rate by about 1 percentage point amid cuts in public investment, see Figure 4). The fiscal stance turned robustly restrictive in the subsequent years following the reform implementation helping to reduce debt.

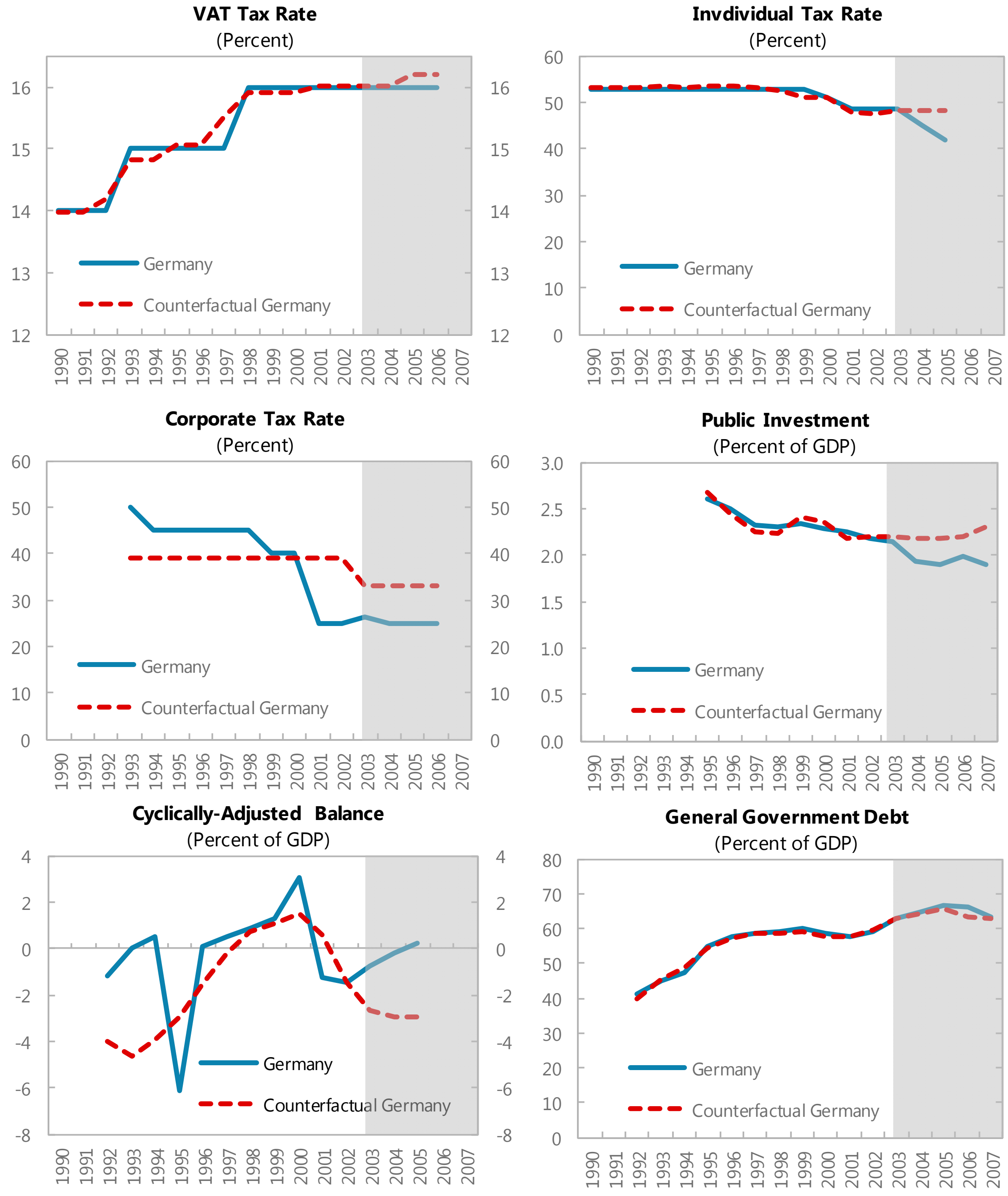
- The gap between public debt to GDP ratio in Netherlands and its counterfactual is negative and rising (see Figure 4).
- Interestingly, there is an evidence of fiscal relaxation in the year of the reform package (1994) and one year after characterized by a deterioration of the cyclically-adjusted fiscal balance which dropped to more than 4 percent of GDP after the VAT cut in 2015. However, while the decline in the fiscal balance is substantial, caution regarding the statistical interpretation of the results is warranted given the relatively limited pre-treatment fit of the data.
- The results show that public investment was cut and remained lower compared to the counterfactual in the years surrounding the reforms.
- On the revenue side, corporate and income tax rates remained flat post-reform years whereas the results show a cut in the VAT rate in 1995. The opposite occurred in the counterfactual scenario.

Figure 1. Finland: Fiscal Impact of Structural Reforms



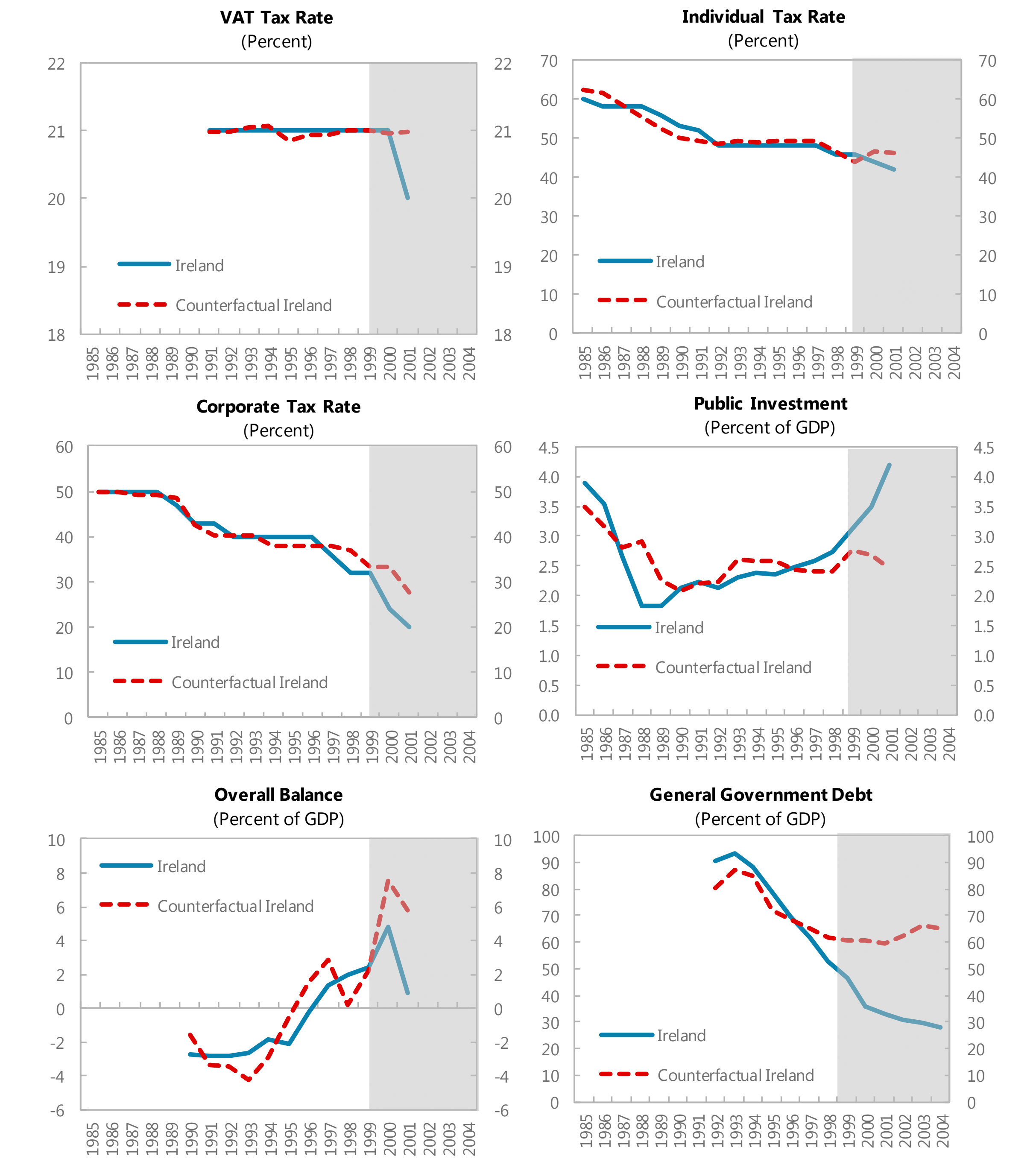
Sources: WEO and IMF Staff Estimates.

Figure 2. Germany: Fiscal Impact of Structural Reforms



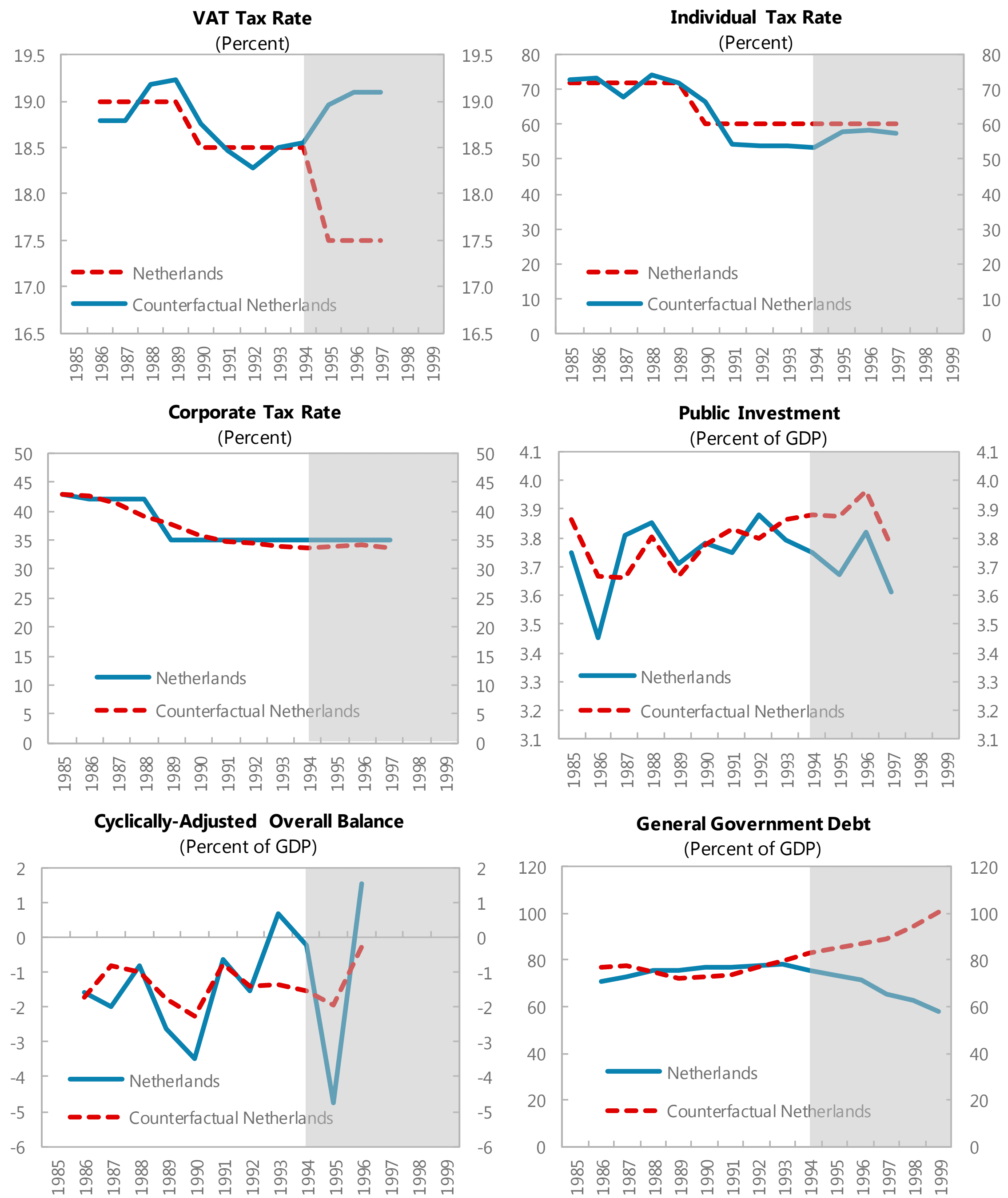
Sources: WEO and IMF Staff Estimates.

Figure 3. Ireland: Fiscal Impact of Structural Reforms



Sources: WEO and IMF Staff Estimates.

Figure 4. Netherlands: Fiscal Impact of Structural Reforms



Sources: WEO and IMF Staff Estimates.

Appendix I. Theoretical Formulation of the Impact of Structural Reforms

We observe $J + 1$ countries. Without loss of generality, let the first country be the one exposed to a certain type of structural reforms (e.g. labor or product market reforms or both), so that we have J remaining countries that serve as potential controls for each reform case. In comparative case studies, it is assumed that the treated unit (the reforming country) is uninterruptedly exposed to treatment after some initial intervention period. In our case, this is indeed the case as there are very few cases of reform reversals in our sample of countries.

Following Abadie et al. (2010) and Cavallo et al. (2013), let F_{it}^{N} be the fiscal variable that would be observed for country i at time t in the absence of the tax reform, for countries $i = 1, \ldots, J+1$ and time periods $t = 1, \ldots, T$. Let T_0 be the number of periods before the reform shock, with $1 \leq T_0 < T$. Let F_{it}^{I} be the fiscal variable that would be observed for country i at time t if country i is exposed to a given structural reform from period $T_0 + 1$ to T. Let $\alpha_{it} = F_{it}^{I} - F_{it}^{N}$ be the effect of structural reforms for country i at time t if country i is exposed to the reforms in periods $T_0 + 1, T_0 + 2, \ldots, T$ (where $1 \leq T_0 < T$). We therefore allow this effect to potentially vary over time. More formally, we have:

$$F_{it}^{I} = F_{it}^{N} + \alpha_{it} D_{it}.$$

where D_{it} is an indicator that takes the value 1 if country i is exposed to a reform episode at time t and value 0 otherwise. Let's assume for now that only the country 1 has implemented structural reforms. Our parameters of interest are therefore $(\alpha_{1,T_0+1}, \ldots, \alpha_{1,T})$, the lead-specific causal effect of structural reforms on fiscal variables. Note that F_{1t}^{I} is observed and equals to F_{1t}. Therefore, to estimate α_{1t}, we need only to come up with an estimate for R_{1t}^{N}.

Suppose that there exists a set of weights $(w_2^*, \ldots, w_{J+1}^*)$ satisfying $\sum_{j=2}^{J+1} w_j^* = 1$ such that:

$\sum_{j=2}^{J+1} w_j^* F_{j1} = Y_{1,1}, \ldots, \sum_{j=2}^{J+1} w_j^* F_{jT_0} = F_{1,T_0}$, and $\sum_{j=2}^{J+1} w_j^* Z_j = Z_1$ with Z_i the ($r\times 1$) vector of observed predictors for the fiscal variables (dated before the reform wave takes place).[8]

[8] This set of covariates is restricted to pre-reform averages of the dependent variables as it produces a better pre-treatment fit. Specifications using a richer set of covariates produce qualitatively similar results.

Abadie et al. (2010) suggest using: $\hat{\alpha}_{1t} = F_{1t} - \sum_{j=2}^{J+1} w_j^* F_{jt}$, for $t \in \{T_0 + 1, \ldots, T\}$ as an estimator of α_{1t}. The set of weights w is obtained by minimizing the distance between the observations of the treated unit Z_1 and the observations for the group of control $Z_0 w$ during the pre-treatment period.

Statistical significance of estimated effects

The usual statistical significance based on regression-based standard errors is not relevant in this case since the uncertainty regarding the estimate of $\hat{\alpha}_{it}$ does not come from uncertainty about the aggregate data. Uncertainty in comparative case studies with synthetic control is derived from uncertainty regarding the ability of the post-treatment synthetic control to replicate the counterfactual post-treatment in the treated observations.

We now discuss how to resort to placebo effects to provide inference. We compute the lead-specific significance level (p) for the estimated structural reform impact as follows:[9]

$$p_l = \mathrm{Prob}\left(\hat{\alpha}_{1,l}^{PL} < \hat{\alpha}_{1,l}\right) = \frac{\sum_{j=2}^{J+1} I\left(\hat{\alpha}_{1,l}^{PL(j)} < \hat{\alpha}_{1,l}\right)}{\#\text{ of control countries}}$$

$$= \frac{\sum_{j=2}^{J+1} I\left(\hat{\alpha}_{1,l}^{PL(j)} < \hat{\alpha}_{1,l}\right)}{J}$$

where $\hat{\alpha}_{1,l}^{PL(j)}$ is the lead l-specific effect of a structural reform shock when control country j is assigned a placebo structural reform at the same time as the treated country 1. $\hat{\alpha}_{1,l}^{PL(j)}$ is computed following the same procedure outlined for $\hat{\alpha}_{1,l}$.

[9] Here we assume for example that structural reforms (the treatment) are expected to lower public debt (the outcome variable), leading us to assess whether the estimated impacts are sufficiently lower than the placebos estimates.

CASE STUDY OF FINLAND

In response to the deep recession and high unemployment following a major economic and banking crisis in early 1990s, Finland underwent sweeping structural reforms. The government pursued a consensual strategy with social partners and actively used fiscal incentives as a carrot to incentivize consensus on reforms, particularly labor market reforms; this was very much a Finnish tradition. These reforms had a positive impact on government finances, taking into account both direct and indirect effects through a reduction in unemployment and stronger growth.

A. Product Market Reforms: 1993–98

1. Economic context. Until the early 1990s, Finland relied on a combination of industrial support and market regulation that tended to reduce competition in sectors where the authorities wanted to develop capital-intensive, primary industries in order to exploit the country's natural resources. Over time, grants and guarantees became the dominant support instrument, benefiting mostly state-owned enterprises. State involvement in the business sector through direct ownership of enterprises was relatively large in Finland.[10]

2. In the 1980s, operating under fixed exchange rates, the financial systems of Finland and its Nordic neighbors Norway and Sweden underwent major deregulation, setting off a sustained lending boom, capital inflows, rising asset prices, rapidly increasing consumption and investment, and an overheated non-tradable sector. The boom turned into a bust around 1990, with capital outflows, systemic banking crises, and deep recessions in the three Nordic countries. The recession in Finland was further amplified by the collapse and disintegration of the Soviet Union, with Finnish exports to Russia dropping rapidly. Meanwhile, the global forest industry was in recession and the level of international interest rates high. The deepest and longest post-war recession led to a cumulative drop in real GDP by about 12 percent between 1990 and 1993, and put almost one fifth of the labor force out of work. The recession also led to the failure of the largest banking group, the savings banks. The budget deficit expanded strongly—peaking at 8 percent of GDP in 1993—in response to the handling of the economic crisis and bank losses, and government debt tripled to about 60 percent of GDP. The economic crisis of the early 1990s revealed the shortcomings of the old strategy, while creating the impetus for a fundamental reorientation of industrial policy in Finland (OECD, 1998a).

3. In addition, in May 1992, Finland signed the agreement on the European Economic Area (EEA), and entered the EEA and the European Union (EU) in 1994 and 1995 respectively. Also, as early as 1993, Finland started to actively prepare to be in the first group of countries to adopt the euro when it was introduced in 1999. By giving up the domestic monetary policy instrument associated

[10] In 1992, around 16 per cent of workers in the manufacturing and energy sector were employed by state-owned companies, while the equivalent figure in transportation and communication was 41 per cent.

with the adoption of the euro, the burden of adjustment to changing economic situations fell increasingly on fiscal policy which was also constrained by the requirements of Stability and Growth Pact and the rising costs associated with the ageing of the population. Given the constraints on macroeconomic policies and to prepare Finnish domestic market for international competition and fuller participation in the European integration process, structural reforms were emphasized in order to improve non-inflationary growth prospects and sustainably reduce unemployment through greater efficiency in the public and private sectors.

4. Political context. Against this economic background, a center-right government took office in 1991 and initiated a broad-based product market reforms—the ''National Industrial Strategy for Finland''—in 1993. The succeeding government continued and expanded the reform. The period of intensive reforms lasted until 1998.

5. Product market reforms. The strategy aimed at promoting competition and improving business conditions through deregulation and privatization of state-owned enterprises (SOEs), and included the following key elements:

- *Harmonization of competition policies*. Restrictions on foreign ownership were abolished at the beginning of 1993. Finnish laws on price setting, entry conditions, acquisition were harmonized with the European Union (EU) laws, including for professional services.

- *Deregulation of selected network markets*. Key reforms in this area were the liberalization of telecom and electricity markets. The telecom market was fully liberalized in 1994 by opening domestic long distance services and international telecommunication services to private suppliers. The liberalization of electricity markets started in 1995 and after 1997 the market was effectively part of the Scandinavian electricity market and the wholesale and retail markets were fully liberalized for all customers.

- *Deregulation of the retail market.* The 1996 Work Hour Act partly deregulated the retail market by allowing longer store opening hours some days of the week and stores to remain open during a limited number of weekends.

- *Small and medium-sized enterprises (SMEs).* Deregulation initiatives were also targeted at the SME sector, primarily in the context of an EU wide program (SLIM), with the view to simplifying administrative rules. In this context, fifteen regional offices were established to offer one-stop-shop facilities for handling the administrative formalities of SMEs.

- *Privatization of state owned enterprises (SOEs)*. Following a Parliament mandate in 1992, a pragmatic and gradual privatization process of SOEs started in 1993 and accelerated in 1998, in tandem with the recovery and the internationalization of the Finnish stock market.[11] The 1992 authorization by Parliament concerned only twelve large multinational companies and did not allow for the complete privatization of all SOEs but the mandate was broadened gradually. The government's privatization program focused on government enterprises in manufacturing and public utilities sectors. By end-1998, the government had privatized 13 companies completely, reduced its stake to less than one-third in four companies, but kept full control in 29 companies.

6. Fiscal incentives. The privatization proceeds are split between the companies being privatized and the government on the basis of ad hoc negotiations, with the companies' take used to strengthen its capital structure.

7. Non-fiscal incentive. Finland's adoption of a medium-term expenditure framework in 1991, entry into the EEA in 1994 and the EU in 1995 provided additional impetus for the reforms. In addition, to incentivize the deregulation and privatization reforms, the enterprises were given autonomy in managing their activities along the lines of broad objectives set by the government.

8. Fiscal impact. The recovery was, first and foremost, export-led and triggered by large-scale exchange rate adjustment, with Markka put on floating since November 1991. The wide-ranging product market reforms also contributed significantly to Finland's favorable performance in the second half of 1990s. Deregulation in the electricity and telecom sectors to some degree fostered the development of a thriving ICT sector, in particular Nokia, which played a critical role in Finland's economic success of the late 1990s and the sustained growth in the decade that followed. During 1994–2000, the Finnish economy grew at an annual rate of as much as 4–6 percent. Economic growth and expenditure savings from lower subsidies to SOEs contributed to the improvement in general government balance from a deficit of 8 percent of GDP to surpluses after 1998. Moreover, the sale of public holdings during 1993–98 generated gross privatization proceeds in excess of FIM 27 billion (on average ½ per cent of GDP per annum). While FIM 8 billion was used to increase the equity capital of the companies involved, the state retained FIM 19 billion, most of which was used to reduce government debt but also partly used to fund R&D, risk financing for SMEs and infrastructure investments. These privatization proceeds facilitated the fiscal consolidation process and brought government debt down from 60 percent of GDP in 1994 to below 50 percent of GDP in 1998.

B. Labor Market Reforms: 1995–99

9. Economic context. The deep recession of the early 1990s resulted in a surge in the unemployment rate, from about 3 percent in 1990 to 17 percent in 1993. The participation rate, especially of younger workers, fell sharply since 1989, significantly reducing the labor force. Despite the robust export-led recovery in 1993–94, the unemployment rate in 1995 exceeded 15 per cent of

[11] The recession and the depressed state of the stock market caused major privatization initiatives under consideration to be postponed.

the labor force—the second highest rate in the OECD, and double the area average of 8 per cent. Moreover, the "true" labor slack was substantially greater than suggested due to the drop in labor force participation (Gronqvist and others, 2009). Another concern was the almost thirty-fold increase in long-term unemployment during 1990–95.

10. There was significant evidence that structural, rather than cyclical, factors were responsible for persistently high levels of unemployment. Labor market institutions, particularly the overly generous unemployment insurance system,[12] exceptionally high labor tax wedge,[13] poorly designed ALMPs,[14] and one of the most restrictive fixed-term employment protection legislations (EPL)[15] in the OECD, generated severe work disincentives and slowed the re-employment of workers. Meanwhile, with almost 20 per cent of the working-age population receiving some form of unemployment compensation of practically unlimited duration, there was a sharp rise in public spending associated with unemployment, which peaked at over 15 per cent of GDP in 1993.

11. **Political context.** Against the backdrop of Finland's aspiration for euro adoption and the continuing post-crisis fiscal consolidation process as well as the expenditure pressures from rapidly aging populations, labor market reforms became essential to underpinning the expenditure-based consolidation under the medium-term expenditure framework adopted in 1991. In response to the unprecedentedly high unemployment and associated fiscal pressures, the new "rainbow government", which took office in April 1995, aimed to bring about a fundamental improvement in employment by the end of its four years in office, with significant expenditure cuts focused on subsidies and transfers. A comprehensive Employment Program was adopted in September 1995, setting out key reforms to reduce unemployment to 8–9 per cent of the labor force by 1999 (OECD 1996a).

[12] Unemployment Insurance (UI) combined with in-kind benefits frequently exceeded 100 per cent of previously earned wages (OECD, 1997). The generosity of the system was further increased in 1989 when the regulation that benefits should be reduced by 12.5 per cent after 200 days was rescinded.

[13] The marginal tax wedge for an average production worker peaked at 71.6 per cent in 1994, leading to significant distortions in the functioning of the labor market.

[14] ALMPs were administered by the Public Employment Service (PES) and included referrals to subsidized job and training programs, combined with normal job broking. Due to the weak labor market, spending on training programs increased significantly. The majority of PES placements into private sector jobs were subsidized, with employers receiving a support from the state amounting to between 140 and 180 per cent of the basic unemployment benefit. Placement in subsidized employment was in many cases effectively used by the UI/UA beneficiaries as a way to renew their eligibility after 500 working days of unemployment assistance (OECD, 1997). Hence, unemployment benefits duration was de facto unlimited.

[15] It worth noting that fixed-term contracts have been the main source of flexibility in work contracts in Finland as part-time jobs are less popular. The similar level of restrictiveness of permanent and fixed-term contracts minimized the duality of EPL and prevented labor market segmentation.

12. **Easing employment protection of permanent contracts.** Several measures were implemented to increase the flexibility of permanent contracts, including halving the notice period for permanent contracts for both employees and employers, allowing termination of fixed-term contracts for unstable businesses, and waiving the minimum wage requirement for new and young entrants to the labor market with reductions in required pay in the range of 10–50 percent. The legislation on working hours was simplified and eased in the 1996 Working Hours Act. The new Act allowed non-organized employers to apply more flexible work-time agreements in collective agreements. While overtime restrictions become tighter, provisions were introduced permitting more flexible working time arrangements at the local level and regulations restricting unusual working hours were eased.

13. **Tightening unemployment benefits.** The indexation of unemployment benefits to wages was frozen during 1995–98 (and would not be compensated for later). In addition, the conditionality of unemployment benefits was tightened and their generosity reduced during 1996–98 (although the duration of benefits remained long by international comparison). The eligibility requirement for the unemployment insurance and allowance schemes was increased to an employment record of 43 weeks during the previous two years, from 26 weeks during 8 months. Hence, the unemployed could no longer ''requalify'' for full benefits through participation in subsidized job programs, which usually lasted for six months. For those re-entering unemployment after a temporary job, benefits were lowered somewhat. The age requirement for unlimited periods of unemployment benefits for the long-term unemployed was raised by two years to 55. Persons aged 20–24 years lacking any vocational training were no longer entitled to labor market support if they refused job offers, educational or vocational training without an acceptable reason.

14. **Restructuring and strengthening of ALMPs**. The Employment Program shifted the focus of ALMPs from providing subsidized jobs to various forms of labor market training and job-search assistance. In particular, the Employment Services Act eliminated restrictions on private placement services and the public monopoly on job placement services. To promote training, participants in voluntary vocational training received an allowance equal to the basic unemployment allowance. In addition, several measures were introduced to facilitate job-searching, including regular in-depth interviews, individual job-seeking plans for the unemployed, substantial increases in the number of job counsellors at employment offices, and the introduction of a combined job subsidy for hiring long-term unemployed. The labor market support scheme, under which long-term unemployed and persons with an insufficient work history received a means-tested benefit, was made conditional on participation in some form of labor market training for under 25-year-olds without vocational education. A comparable measure was also taken for those aged 17 to 19 years.

15. **Wage moderation**. The centralized wage bargaining system, while relatively rigid and lacking in appropriate differentiation between firms and industries, delivered nation-wide wage moderation in the 1996–97 and 1998–99 rounds of wage negotiations. Also, a negotiated reduction in starting salaries encouraged faster employment creation at lower skill levels.

16. Fiscal incentives for labor market reforms. Following the Finnish tradition,[16] the government used fiscal incentives to encourage wage moderation in the centralized negotiations and to reach consensus on the above labor market reforms (OECD 1996). As part of the agreement of the 1995 Employment Program, the government promised to raise the upper limit on standard income tax deductions particularly for low- and medium-income workers, lower the rate of both employers' and employees' unemployment insurance contributions, and cut income tax rates for all scales by 0.8 percentage points in 1996–97.[17] The reduction in unemployment insurance contributions reduced employers' expenses and employees' after-tax expenses. Moreover, the government promised to strengthen ALMPs by increasing the number of vocational training places.

17. Non-fiscal incentive. The medium-term expenditure framework adopted in 1991 and aspirations of adopting the euro in 1999 provided additional impetus for reforms. In this context, the Government agreed on a new four-year budgetary framework in 1996, with overall expenditure ceilings for each year, to meet the decline in the central government debt-to-GDP ratio by 1999 envisaged in the Government's program manifesto in the Spring of 1995, thereby also not exceeding the limits for public deficits and debt prescribed in the Maastricht Treaty.

18. Fiscal impact. Savings were achieved in most entitlements programs, with social benefit spending declining from about 17 percent of GDP in 1994 to below 13 percent of GDP in 1999. About half of all the income tax reduction was financed by raising taxes on property and energy and some additional cuts to public spending, while the remainder was assumed to be ''self-financing'', in terms of a tax dividend from additional employment and falls in social welfare outlays. (OECD 1996). The general government balance also improved from a deficit of over 6 percent of GDP in 1994 to a surplus from 1998. The improved fiscal performances allowed the introduction of the euro in 1999.

[16] Recent reforms introduced since 2015 are also slated to be supported by a number of supportive fiscal measures such as tax cuts, increases in earned income tax credits, etc.

[17] At the beginning of 1996, employers' UI contributions were reduced to 1 percent (from 2 percent) on the first Mk 5 million of total payroll, and to 4 per cent for payroll amounts exceeding that (from 6.1 per cent). At the same time, the employees' contributions were lowered to 1.5 percent (from 1.87 percent). In 1997, the average tax wedge was lowered by 1.5 percentage points by cutting all tax rates by 0.8 percentage points and raising the maximum standard deduction to Mk 1800 (from 1500). The tax burden for low- and medium-income workers was reduced by a substantial increase in the earnings-related deduction in the local income tax (municipal earned income tax credit) and by increases in the deduction for work-related expenses in the central government income tax.

CASE STUDY OF GERMANY

The case study finds significant use of fiscal instruments in Germany to incentivize structural reforms, especially labor market reforms. These took the form of cuts in income and corporate tax rates which helped mitigate the impact of reforms especially for the vulnerable. The government also provided subsidies and transfers to facilitate the transition of east Germany and reunification, flexibility in wage contracts, the reduction of unemployment benefits and increase labor force participation. Given the strong footprint of the government in several sectors of the economy, an important reform was, in fact, reducing subsidies over time to promote competition and productivity. Public investment was reduced to accommodate these fiscal measures; nevertheless, public debt rose sharply over time even though privatization receipts were used to pay down debt. The case study also identified other factors which helped enable reform: the need to comply with EU Directives on product markets; the strong role of social partners in brokering reforms for government incentives; and, the use of grandfathering.

A. Reform Phase: 1990–93

1. Economic and political context. Following the reunification of Germany in 1990, the reintegration of east Germany needed to be managed politically and socially with substantial material assistance from the west. The economy faced the strains of merging two economic regions with different economic systems and performance. Overall, this was a period of stagnating output with wages rising faster than declining productivity due to the policy of "front-loaded" convergence, followed by a recession starting in 1993. There was significant unemployment in east Germany. Intensifying cost-price spiral due to adjustment to market prices in the east and wages increases outstripping productivity in the west. Policies focused on accelerating economic reconstruction and providing social support in east Germany, and to safeguard domestic financial stability.

Privatization of state owned enterprises

2. During this period about 8500 state-owned east German companies with over four million employees were restructured and sold. The pace of privatization was affected by the considerable emphasis on preserving employment as well as regional and industrial considerations. This task was largely completed by 1995. Privatization receipts were used for debt service. Once privatization was completed, in 1996, the debts of the Treuhandanstalt and the Credit Fund—which were off-budget until then—were taken over by a newly created Inherited Debt Fund, serviced by the federal budget.

3. Fiscal incentives. Lower selling prices (including grants, debt cancellation, redundancy payments) were agreed for companies in return for firm commitments regarding jobs and investment targets which were specifically written into sales contracts with penalty contracts. Special generous short-time work arrangements were agreed which allowed a large part of wages to be paid by the state. Special provisions were introduced in 1990 allowing east Germans becoming unemployed as a result of privatization to enter "pre-retirement" at age 57, the normal statutory retirement age in Germany being 65 and 60 for men and women respectively (OECD, 1991–94).

Active labor market policies

4. Active labor market policies (ALMP) comprising training, retraining and job creation, were reinforced to address persistent high-levels of unemployment and rising long-term unemployment. They were used extensively in East Germany, and under pressures of reunification, were often reduced to an additional form of social transfer. The programs were significant, with net transfers to East Germany amounting to some 4 percent of GDP per year during 1991–93. To control costs, the access of the employed to retraining was cut, the differential between unemployment benefits and training allowances eliminated, the training period was shortened, and the program was downsized in East Germany due to concerns about effectiveness (OECD 1992−95).

5. Fiscal incentive. "Employment companies" were set up for training and creating jobs for the unemployed for certain types of public works. The Federal Labor Office acted as a job broker for all workers, including the unemployed. For the long-term unemployed, wage subsidies were paid to the private sector employees by the Federal Labor Office. Large scale subsidized work schemes were introduced in east Germany for those unemployed for six months or more, with subsidies amounting to the average unemployment benefit in the region. Such spending lead to significant fiscal spending pressures, which were compensated by higher taxes to limit the increase in public debt; however, a considerable part of the reconstruction of eastern Germany was done off-budget. Some tax rates were increased (a surcharge on the personal and corporate income tax rate (solidarity contribution) amounting to 7.5 percent of the tax rate for one yea, tax increases on mineral oil, insurance, and tobacco, an increase in the general VAT rate in 1993). At the same time, between 1986–90 an income tax reform package was introduced, reducing marginal tax rates and the first stage of a corporate tax reform was introduced in 1993. The overall balance and public debt levels increased significantly.

Employment protection

6. In 1985 the government introduced two-year work contracts with no obligation for compensating dismissals at the end of two years followed by permanent employment. In 1990, the law was extended to 1995 and the condition of only one such contract was relaxed.

B. Reform Phase: 1994–98

7. Economic context. A moderate recovery started in 1994 but this was held back by persistently high unemployment and a decline in household and consumer confidence due, in part, to concerns about the ability of the government to rein in public finances. High taxes and heavy social charges, wage rigidities and over regulation undermined cost competitiveness. These developments led to the agreement of a medium-term fiscal consolidation package as part of the "Solidarity Pact". The fiscal consolidation package agreed on the level of the solidarity surcharge to be effective from 1995 as well as social spending cuts.

Unemployment benefit reform

8. Changes to the unemployment insurance system were introduced from 1995 onwards to halt *de facto* early retirement through the use of the generous unemployment insurance provisions for older workers. Employers were able, by mutual consent, to lay off workers of below-pensionable age who could claim unemployment benefits for up to 32 months before receiving an early retirement pension from the age of 60. The changes included a shorter unemployment duration in case of unjustified dismissal and linked duration to the size of redundancy payments. In 1997, changes to the Employment Promotion Law introduced stricter criteria for receiving unemployment-related income support, narrowing the grounds for recipients of unemployment benefits or assistance to refuse job offers. Access to early retirement was restricted by raising retirement age from 60 to 63 years in stages during 1997–99, restricting conditions for retirement due to incapacity, reducing cost of sick leave borne by employers, raising the minimum age for receiving unemployment benefits for more than one year and the job acceptability criteria for unemployment benefits, the possibility of sequential participation in ALMP and job creation programs was abolished, the wage base for calculating unemployment assistance was reduced and from 1999, social assistance was capped at 15 percent below the local average net wage of a low-income family (OECD 1996–99).[18]

9. **Fiscal incentives.** Income tax rates were reduced in 1994, compensated by cuts in some tax concessions, the closing of tax loopholes and other taxes increases such as an increase in insurance and wealth tax, reintroduction of solidarity income tax surcharge (OECD 1994). The 1996 tax law revised the income tax system to avoid taxation of incomes at or below subsistence levels, and changed the tax and transfer system to the benefit of families with children (OECD 1996). However, some of these measures had to be delayed or reversed because of the potential impact on the fiscal deficit. There were significant reductions in income tax rates in 1997 (lowest rate cut from 26 to 15 percent and highest rate from 47 to 35 percent). In 1995, as part of an agreement with social partners ("the Chancellor Round), the government extended the program to reduce long-term unemployment up to 1999 (OECD 1996). The measures included employment subsidies lasting up to a year for hiring the long-term unemployed with the size of the subsidy rising with the length of the previous unemployment spell of the hired person. A job creation program originally designed for east Germany was, in 1994, extended to west Germany.

10. **Non-fiscal incentives.** The reforms were negotiated with social partners in 1995 (see above). To compensate employees for the 1995 introduction of long-term care insurance, one public holiday was abolished in all but one Länder. The 1996 income tax reforms (increase in basic income allowance and child allowance) reflected the ruling by the constitutional court that incomes at subsistence levels be tax free. In 1996, the government agreed a non-binding pact with social partners which called for moderate wage increases, improved labor market flexibility, lower social

[18] Several reforms were reversed in 1999.

charges and a phased withdrawal of early retirement provisions. Generous grandfathering provisions were included for several measures (e.g., increase in early retirement age, lower dismissal protection).

Employment protection reform

11. In 1996 the government adopted a 50-point plan to promote investment and employment. Part time employment of formerly full-time older workers was encouraged. The duration of fixed term contracts was extended from 18 to 24 months with the possibility of three renewals in between. The employment ceiling at which job protection legislation was applicable was raised from 5 to 10 employees per firm (full-time equivalent).[19] The more restrictive conditions however continued to apply to 70 per cent of all employees and 20 per cent of companies. The employment promotion law made secondment more flexible by extending the duration from 9 to 12 months (OECD 1996–98).

12. **Fiscal incentives.** Part-time work was encouraged by earning supplements paid by the Federal Labor Office (BA) from age 55 until retirement, provided the company compensated for reduced work hours by hiring unemployed or recently graduated apprentices. Under this condition, an employee switching from full-time to half-time employment received tax and contribution free transfers to guarantee an earnings level of 70 percent of their former net income.

13. **Non-fiscal factors**. Workers who were employed in their enterprise at the time the law was introduced were not affected by the new provisions for three years, i.e., until September 1999 (grandfathering). In 1996, the government agreed a non-binding pact with social partners which called for moderate wage increases, improved labor market flexibility, lower social charges and a phased withdrawal of early retirement provisions.

Employment and wage protection

14. In response to high and rising unemployment in industry, wage rounds were marked by moves over time to increase flexibility by making the allocation of the work week flexible, and through the introduction of time accounts, "opening" clauses for plant-level agreements and "hardship" clauses which permitted working time to be reduced at the company level if warranted by the financial situation of the company. Some branch tariff agreements allowed for temporarily reducing wages for newly-hired employees, particularly those previously unemployed.[20] Increasing numbers of enterprises exit collective branch wage agreements and the non-observance of such agreements also rose. Budget pressures led to public sector authorities taking a firm position in

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[19] The threshold was lowered to 5 employees in 1999.

[20] The number of enterprises with their own contracts increased to 5000 in 1997 from 2500 in 1990, although general branch agreements tend to dominate (OECD 1998).

wage bargaining with public employees, resulting in low wage increases in 1996–97.[21] Budget pressures at the Lander and local government levels were exacerbated by pressures from the rapid accumulation of debt and wage developments as the government was a major employer. Lower interest rates and a modest public sector wage increase helped ease pressures. Nevertheless, strict expenditure controls were widely imposed, particularly in public investment. Concerns about the poor state of the construction industry led the government to initiate an off-budget subsidized loan program to support local government investment expenditures.

15. Fiscal incentives. The eligibility criteria for early retirement on account of invalidity was exploited by companies to reduce their workforce at the government's expense.

16. Non-fiscal factors. "Opening" and "hardship" clauses were restricted in scope and in cases other than working times still need to be referred back to social partners and associated with commitments to secure existing employment. Some wage agreements—such as in the chemicals sector—linked the acceptance of greater flexibility and part-time employment for older workers to the creation of additional training places.

Active Labor Market Policies

17. For the long-term unemployed, a special type of work contract came into effect from 1997 covering a period between two weeks to six months—which could be terminated at any time—during which time the unemployed worker has a chance to establish themselves in the company with the goal of making the transition to regular employment. Despite their ineffectiveness, ALMPs were expanded in 1998 (as part of the "new employment initiative") with a number of exemptions that allowed local governments greater flexibility in administering programs. There was renewed emphasis on retraining schemes, even though they had been assessed to be ineffective in the past. In 1999, new legislation opened ALMPs to a wider group of workers with limited employment opportunities and greater emphasis was given to job creation in the public sector (OECD 1997−99).

18. Fiscal incentives. For special work contracts for the long-term unemployed, the Federal Labor Office (BA) reimbursed the private sector employer for wages and social security contributions during the period they did not work (including holidays). The BA also provided wage subsidies targeted at the long-term unemployed (60–80 percent in first six months and 40–60 percent in the second six months). The BA covered costs of short-term retraining programs of 2–8 weeks and benefits for the duration of the training. In east Germany, the BA paid a wage subsidy for employing unemployed workers referred by the BA for up to twelve months (equivalent to unemployment benefits). A number of other programs were in operation, for example, one that preserved unemployment benefits for a period for those who become self-employed. The government raised the number of apprenticeships in the public administration and has extended financial support for

[21] In 1999 the government started considering increasing the power of social partners to challenge such agreements in court. It has also compulsorily extended wage agreements to non-contracting parties in the construction sector.

training places in enterprises. Employment in private households was incentivized by special tax allowances introduced in 1997.

19. Non-fiscal factors. The government sought to encourage greater cooperation between the social partners and to obtain commitments from employers and trade associations to increase training places. This moral suasion continued into 1998. In addition, the federal government gave preference in awarding procurement contracts to firms which were training and urged the Länder to do the same.

Improvement in business climate

20. The second stage of the corporate tax reform was implemented in 1994 to improve the attractiveness of Germany for business by reducing the tax burden: the rate on undistributed profits were lowered from 50 to 45 percent and on distributed profits from 36 to 30 percent. In 1995, a stepwise reduction in transfers and subsidies to east Germany was announced. Access of SMEs to risk capital was facilitated. In 1997, corporate taxes were reduced further, closer to world levels and foreign investors were placed on an equal footing. Planning approval procedures were revised, simplified and made less costly after the introduction of new federal legislation in 1997. As a result of a new law in April 1998, the barriers to entry into the service sector was reduced by cutting the number of trade requiring a special Masters qualification from 127 to 94. In 1999, corporate tax burden was reduced for SMEs and shifted to larger corporations and a corporate tax reform was planned for 2001.

21. Fiscal incentives. The corporate tax burden was lowered. Access of SME to capital was facilitated by changes in tax and corporate law.

Deregulation and privatization

22. *Telecommunication and postal services* (Postreform II). The Post/Telecom system was split into three entities in 1988—postal service, post-bank and telecommunications. The reforms introduced in 1995 entailed the organizing these three units as joint stock companies, giving them more independence from political influence. The existing stock of debt was taken over by the three new companies and recorded as remaining outside the general government debt. The approach differed from the one of corporatization of the railway system because of the positive net worth and expected profitability of the three companies despite their debt burden. In 1996, a law was passed which liberalized the telecommunications market. In 1997, Telekom was partly privatized by issuing new equity capital. In 1998 the telecommunications sector was further significantly opened to competition to accord with EU policy and a new regulatory authority was established. The monopoly on postal services was lifted in January 1998. In 2003, a new telecommunications Act was implemented as a result of the EC Communications Directive (OECD 2004).

23. *Transport.* Binding tariffs for goods transport were abolished in 1994 for all means of transport. Market access in air transport liberalized and from 1997 air transport was liberalized in line with EU Directives. The reform of the railways, started in 1994, entailed the reduction of cross-subsidization of services and the transmission of clear price signals to local authorities and consumers. From 1999, the scope of competition policy was widened with the deletion of exemptions for air transport and the removal of entry barriers for new railway operators from 1999. A new subsidiary budget, the Federal Railways Fund, was established, which assumed the debts incurred by the railways. Following the takeover by the Länder of responsibilities for running local railways they sought to restrain overall expenditure growth with substantial restrictions on public investment.

24. *Energy markets.* The government announced plans to introduce competition in the electricity and gas sectors by introducing a new energy law while abolishing existing exemptions to the cartel law which allowed regional or local energy monopolies. However, attempts to deregulate and liberalize were resisted by lower-level territorial authorities which often either owned utilities or received royalties from them. In 1996, the special levy for the subsidization of coal mining was abolished and the financing of coal subsidies was integrated into the federal budget; government subsidies for coal mining was reduced over time. A new law in 1998 lifted the sector's exemption from the general competition law, implying that exclusive agreements hitherto used to prevent competition, would cease to exist. The scope of competition policy was widened with the deletion of exemptions for energy from 1999.

25. *Liberalizing shop opening hours***.** Shop opening hours were partially liberalized in 1996. Shops were permitted to remain open till eight o'clock on weekdays and four o'clock on Saturdays. The hours were extended in 1997.

26. **Fiscal incentive.** Privatization receipts were used to reduce federal debt (OECD 1999). The provision of subsidies for coal mining was reduced over time by law. However, the subsidy for the use of expensive German coal in electricity production was increased at first, but subsequently abolished in 1996 after a ruling by the Constitutional Court that it was unconstitutional.

27. **Non-fiscal incentive.** The reforms were implemented in response to various EU Directives and infringement procedures (OECD 2004).

C. Reform Phase: 2000–2004

28. **Economic context.** By the late 1990s and the early 2000s, Germany was often referred to as 'the sick man of Europe' given its weak growth performance and poor unemployment record relative to its peers. The fiscal balance worsened significantly during 2000–05 due to cyclical and structural factors. The retail sector grew more slowly than the rest of the economy due to weak consumption growth. Employment in this sector was falling due to consolidation within the sector and restructuring in East Germany. In 2003, Germany embarked on an ambitious and wide-ranging reform program commonly referred to as "Agenda 2010." The reforms were designed to fix several key structural economic problems underlying Germany's weak long-term economic performance. One central motivation was to reform and liberalize the labor market to boost labor supply and demand. Against the backdrop of significant fiscal deterioration and the breach of the Stability and Growth Pact, expenditure-based consolidation was another important objective.

29. Political support. While the reforms were controversial given their far-reaching changes in social policy, they gained broad support in Parliament. The reforms were initiated by a coalition government of the social democrats, and the green party, implying that the opposition at that time consisted virtually only of the conservative party and the liberal party, which were both sympathetic with the general impetus of the reforms. At the same time, it may have not been feasible to implement the structural reforms earlier because scarce political capital required to implement them was tied up in issues relating to reunification throughout the 1990s (Kastrop, 2013).

Hartz reforms of the labor market in 2002–05

30. The "Agenda 2010" and a series of reforms implemented between 2003 and 2005 (Hartz I–IV) had three main goals: (1) improving the quality of employment services and reorienting them from passive income support to activation of the unemployed, (2) increasing incentives to take up employment by reducing welfare benefits, and (3) deregulating the labor market (Jacobi and Kluve, 2006). The immediate fiscal benefits of these reforms in terms of expenditure savings were likely another important motivation. The wide-ranging reforms targeted key rigidities of the labor market and non-wage labor costs: a reduction of the duration and eligibility of unemployment and welfare benefits, stronger incentives for the unemployed to speed up their job search, the slashing of non-wage labor costs through reduced health insurance premiums and more effective active labor market policies. Unemployment benefit duration was reduced further in 2006, and early retirement options were phased out between 2006 and 2010 (OECD, 2009 and 2012).

31. Fiscal incentives. The savings from the reform on the expenditure side were large enough to create fiscal space that allowed for tax cuts. The top marginal income tax rate was cut from 48 percent to 42 percent in 2005 (although partially reversed in 2007), whereas the marginal tax rate for low incomes was cut from approximately 20 percent to 15 percent between 2003 and 2005. In 2008, the federal corporate tax rate was further reduced from 25 percent to 15 percent as part of a larger corporate tax reform that also entailed base broadening as various possibilities for tax deductions were eliminated. While some of the potential demand-side effects were undone by the increase of the standard VAT rate from 16 percent to 19 percent in 2005, the tax system became in any case much less distortionary. In addition, political support was not further undermined by additional fiscal consolidation measures. To the contrary, cuts in personal income taxation in 2005 that roughly coincided with the reforms but that were agreed upon in 2000 already may have been important to safeguard voters' support. In addition, the government concentrated on economic reforms with the biggest 'bang for the buck' rather than implementing less important structural reforms that still induce economic pain.

32. Non-fiscal factors. To prevent the waning of political capital for reform, the technically and politically easiest reforms were implemented first (OECD 2009). Thus, cuts in long- established health benefits and changes in job security, which were not only sensitive issues for the majority of voters, but also critical from an economic perspective, were implemented in the beginning of the reform episode. The reforms left untouched a number of reforms that would have generated more union opposition such as collective bargaining, employment protection, etc. Favorable economic conditions in the mid-2000s due, in part, to factors outside of government influence may have helped to safeguard political support for reform.

33. Deteriorating employment situation strengthened electoral pressure for reform. It strengthened the hand of "modernizers" in the governing Social Democratic Party. Moreover, the Chancellor's endorsement of reform proposals in the midst of the election campaign forced the trade unions to support reforms and gave the new government a strong mandate for reforms at the start of its term. A scandal concerning large scale data falsification at the Federal Labor Office (BA) in early 2002 persuaded many that a reform of the BA as well as larger reforms was necessary (OECD 2009).

Retail opening hours 2003–06

34. In late 1999, pressure from some federal states and the publication of two conflicting studies commissioned by two federal ministries triggered renewed discussion of the need to liberalize Germany's traditionally restrictive law on opening hours for retail shops. In contrast with the promised beneficial results of the 1996 reform which had also been incremental, the two studies found that the prior reform had not produced the promised growth of retail sales and employment. After 3½ years of debate, there was a modest liberalization in June 2003. The reform led to extended rounds of bargaining over working time and pay for additional hours since employers gave notice that they would no longer be willing to offer bonus pay for weekend work. However, as a result of a 2004 Constitutional Court ruling, the Lander took over the regulation of opening hours in 2006 and a great majority of them opted for further liberalization (OECD 2009).

35. Non-fiscal factors. First, the pressures for reform arose due to the changing nature and consolidation in the retail sector which strengthened the position of large chains within the retail lobby. These reform proponents had gained the upper hand in the Länder, where the unions were relatively weak, and pushed them to open up the retail sector after 2006. Second, the judicial process worked more effectively than the federal process. The myriad opponents of reform (e.g., trade unions, small businesses) benefitted from a federal policy process with multiple negotiation processes. The beneficiaries of the reform (consumers) were weakly organized and less involved in the process. Finally, the merger of the labor and economics ministries after the 2002 elections helped break the prior impasse about this reform between the two ministries (with the former being opposed to reform).

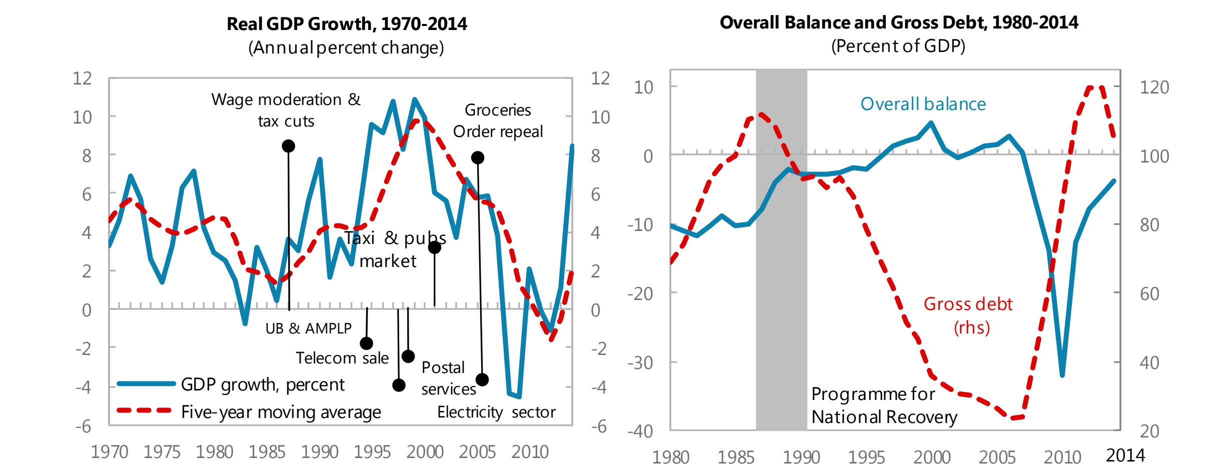
CASE STUDY: IRELAND

After 1987, structural reforms in Ireland were implemented together with significant fiscal reforms. Wage growth was moderated in exchange for a reduction of personal income taxes which created a virtuous cycle of improved competitiveness, attracting foreign direct investment and boosting growth. The success and sustainability of the structural reforms was ensured by the support of social partners provided in the context of five consecutive partnership agreements and through compensatory measures for those expected to loose from reforms. Most of the product market regulatory reforms in the 1990s were undertaken due to EU requirements and an unwavering policy commitment to attract foreign direct investment; in a few cases, advocacy by the competition authority was a major incentive. Since 1989, Ireland also benefited considerably from EU structural and cohesion funds aimed at reducing economic and social disparities among EU country members.

A. Reform Phase: 1987–1989

1. Economic context. During 1980–87, the Irish economy was characterized by a prolonged recession, falling living standards, a significant increase in unemployment and a deteriorating fiscal position. Real GDP growth averaged about 2 percent, total employment declined by 6 percent and employment in manufacturing by 25 percent. Due to rapid fiscal expansion and an unfavorable external environment, the fiscal position deteriorated significantly with the debt-to-GDP ratio doubling to 112 percent of GDP by 1987 and the budget deficit rising to 10.5 percent of GDP in 1986 largely due to high interest payments.

Figure 1. Economic Context



Sources: IMF WEO and IMF Staff Estimates.

2. Political context. The seriousness of the economic situation led the new Fianna Fail government to make severe job cuts in the public sector, particularly in health services. As successive governments in the 1980s sought to tackle the burgeoning public debt, it became apparent to the social partners (government, employers, trade unions, farming organizations) that fighting over shares of declining income was fruitless.

Collective bargaining reform

3. In the mid-1980s, there were open discussions on how best to plan for medium-term economic recovery, to which both employers and trade unions contributed. The idea of a new centralized agreement emerged from these discussions. A report by the National Economic and Social Council set the scene for a more constructive approach to policy formation, including wage formation. As a result, in the Programme for National Recovery (PNR) agreed between the social partners in 1987, a three-year strategy for tackling the financial crisis, was mapped out (OECD, 2001). Since 1987 there have been four similar agreements between the government and the social partners: Programme for Economic and Social Progress (1991–93); Programme for Competitiveness and Work (1994–96); Partnership 2000 (1997–99); Programme for Prosperity and Fairness (2000–03). Over time, such partnership agreements included detailed agreements on the development of wide range of economic and social policies, including tax reform, social welfare transfers, health spending, and also privatization of state assets. This was partly driven by the inclusion of a fourth "partner"—the community and voluntary sector—broadly representing the unemployed and other groups not represented by employers and trade unions. The terms of the partnership agreement were adhered to by all sides.

4. **Fiscal incentive.** While meeting its commitments under the agreements, the government had to ensure that the debt to GDP ratio, the general government deficit, and the growth of public spending did not exceed limits stipulated in the agreements. As a quid pro quo for trade union support for the improvement in public finances, the government agreed to maintain the value of social welfare payments.

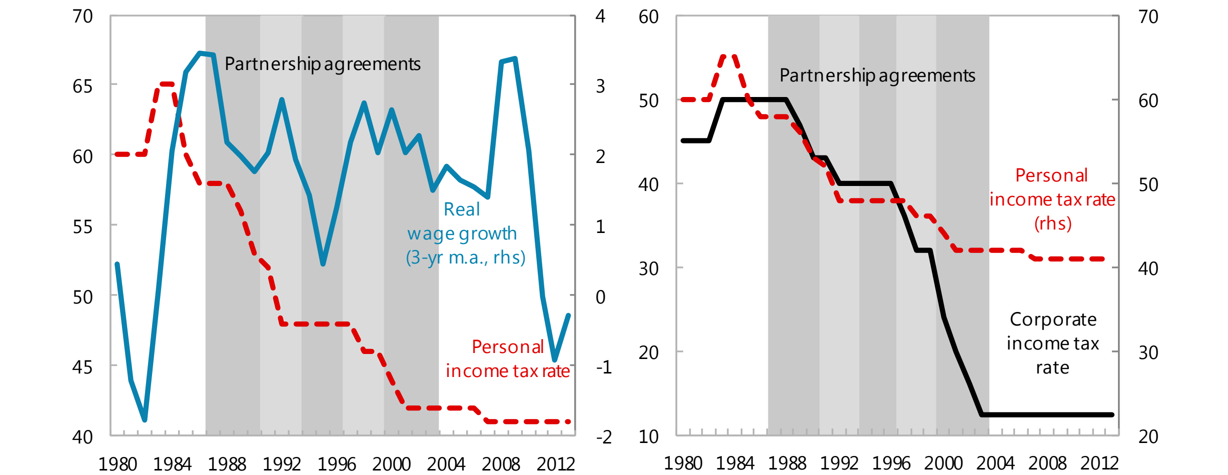
5. **Non-fiscal factors.** The trade union movement had been losing influence in the period up to 1987 and they also had the example of the increasing marginalization of the union movement in the United Kingdom. Thus, the social partnership agreement was negotiated when trade unions held less of a bargaining advantage with the government than they had previously, offering them a way to avoid the fate of their British counterparts. There was also a general consensus that there was a national crisis, and that the commitments made by the government were more realistic than those made under previous agreements. The success of the first social partnership agreement, forged with collaboration between all relevant stake holders, and the feeling that everyone benefitted, helped set the stage for future partnership agreements.

Wage moderation (1987–2003)

6. The 1987 PNR included detailed targets on controlling public expenditure and stabilizing the debt-to-GNP ratio. It was agreed that, in return for significant pay moderation, there would be a reversal of the policy of increasing taxation; such an explicit trade-off of wage moderation for tax cuts became a hallmark of all subsequent agreements. The agreement also provided a framework in which the government cut employment in the public sector over a two-year period by 7 percent.

7. Fiscal incentives. Between 1987 and 1992 the focus of tax policy was to reduce the higher rates of marginal income taxation (Figure 2).[22] These reforms had a smaller effect for individuals with average income and tended to increase the tax burden for those at lower income levels (OECD 1995). During 1994–96, the government concentrated tax relief on low-income workers while raising the income threshold at which the higher tax rate came into effect. In 1997, the tax cuts were more broadly distributed, with both the standard rate of income tax and employees' social contributions being lowered by 1 percentage point to 26 and 4.5 per cent, respectively. Social benefits were raised by twice the rate of inflation. Within Partnership 2000, the government committed to cut income taxation and corporate taxation. On the expenditure side, the partnership agreements committed the government to increase spending on health, social welfare, housing, education, industrial development and productivity in state sponsored bodies. Measures to reduce poverty, social exclusion and inequality were included in the last two agreements.

Figure 2. Wage Moderation and Tax Rates



Sources: OECD and IMF Staff Estimations.

8. Non-fiscal factors. The 1987 agreement also provided for a shortening of the working week by one hour, the implementation of which was negotiated locally without any great difficulty for most employees. Moreover, there is some evidence that the wage moderation achieved through the agreements would have been achieved anyway as a result of market forces as there was already a movement towards a more moderate wage growth in the early 1980s.

[22] In line with the wage pacts, taxes were reduced beginning in 1987, with the marginal rate falling from 35 percent to 29 percent in 1991 in the lowest income bracket, and from 58 to 48 percent in the highest bracket. As a result, the average tax burden fell from 35 percent in 1987 to 31 percent in 1994, and fell further to 29 percent in 1996.

Improving the business climate (1980–2003)

9. In the 1980s and 1990s, Ireland implemented a large-scale program to transform its business climate and attract investment in high-tech, export-oriented manufacturing enterprises. The Industrial Development Agency (IDA) played a central role by targeting the development of the IT, pharmaceuticals and health care, financial and international services sectors. A notable example was the setting up of the International Financial Services Centre (IFSC) in the old Docklands area of Dublin in 1987 with EU approval.

10. Fiscal incentives. The government also cut corporate income tax (CIT) rate cuts to improve competitiveness and attract FDI. The process started in 1980 when a 10 percent tax rate was introduced and later extended to the financial services sector in 1987. As part of the partnership agreements, the standard CIT was reduced from 50 percent in 1987 to 12½ percent in 2003 with the largest reductions taking place in the late 1990s. The government raised the preferential tax rate of 10 to 12½ percent by 2003 in line with tax rates applicable in other sectors. The government also provided generous subsidies to the export-oriented sector. Finally, the Business Expansion Scheme (BES), which provided tax relief for investment in certain corporate trades, was originally introduced in 1984 for a three-year period but has been renewed on a regular basis since.

11. Other incentives. The policy of attracting FDI was complemented by reforms in the education system (through investments in secondary and university education, with an emphasis on skills attractive to foreign companies); significant investments in infrastructure (aided by EU structural funds); active labor market reforms (job creation grants); and access to the EU-wide market.

B. Reform Phase: 1994–2000

12. Economic context. The period 1987–89 marked the beginning of a strong economic expansion. During 1989–95, real GDP growth averaged 5.2 percent and living standards (GDP per capita) caught up to, and eclipsed, the EU average. The fiscal situation also improved considerably. Balanced budgets were achieved in 1997 and the debt to GDP ratio declined to 62 percent. Various factors contributed to what is often referred to as the "Celtic Tiger." Fiscal consolidation helped reduce economic uncertainty and because it had the support of social partners, a virtuous cycle of low taxes and increased labor competiveness was created. Low labor costs, a high degree of trade openness, an underutilized labor force that was better educated than the generation before it, and favorable tax rates allowed FDI to flourish. Ireland's growth performance took place against a backdrop of an improving external environment as the United States, one of Ireland's largest trading partners and a source of significant FDI, emerged from recession in 1991.

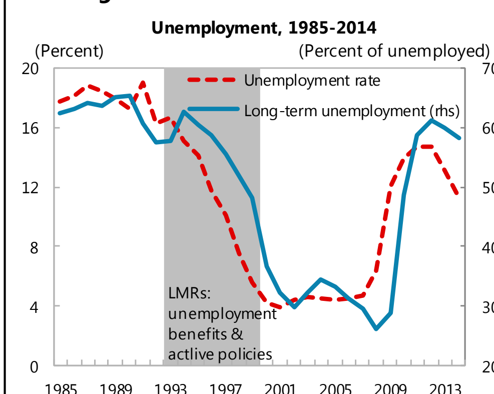
13. The signing of the Maastricht Treaty in 1992 solidified Ireland's commitment to the European Monetary Union which sent a positive signal to foreign firms looking for investment opportunities within the EU. The exchange rate stabilized when Ireland adopted wider exchange rate bands within the European Exchange Rate Mechanism in the second half of 1993. Since 1989, Ireland benefited considerably from EU structural and cohesion funds aimed at reducing economic and social disparities among EU country members. The annual transfers to Ireland from the Community Structural Funds was estimated at 2.8 percent of GDP between 1989–93, declining thereafter to 2.25 percent of GDP 1997–98. More than half of these transfers was allocated to human resource development and physical infrastructure projects, which enhanced productive potential without adding budgetary pressure. (OECD, 2001b).

Unemployment benefit reform (1994–1999)

14. The Irish unemployment rate was consistently higher than the EC average during the 1980s. Long-term unemployment rose, particularly among the youth, partly reflecting the unconditional payment of unemployment benefits on an open-ended basis and high marginal tax rates at low levels of earned income. Although the replacement ratios fell in the 1990s, the Irish welfare system continued to provide more or less permanent support for the unemployed, which generated an ''unemployment trap'' and pushed up unemployment sharply.

15. The rapid economic growth led to a significant tightening of the labor market which prompted reform of the unemployment benefit system. The eligibility criteria and enforcement of such criteria was tightened in return for greater assistance in obtaining work. The 1994 Budget abolished the pay-related supplement to unemployment benefits and unemployment benefits were made taxable. The money thus saved was used to raise the flat rate unemployment benefit to 9.7 percent, bringing it to the same level as the mean-tested unemployment assistance paid to long-term unemployed. The net result of these changes was to reduce the average replacement rate by about 6–7 percentage points. The net replacement rate was further reduced 1995 onwards. By late 1996, although unemployment had fallen sharply from its peak in 1991, the total number of benefit claims had remained steady. Investigation of this paradox led to an anti-fraud drive, stronger links with active labor market policies (below) and tighter conditionality.

Figure 3. Labor Market Reforms



Sources: Central Statistics Office; and World Bank.

16. **Fiscal incentives.** The 1994–99 budgets included measures to increase the reward to work and improve work incentives which resulted in lower average replacement rates. Such measures included raising unemployment benefits less than the rise in average earnings.

Active Labor Market Policies (1994–1999)

17. In the 1990s the Irish government increased spending on active labor market policies (ALMP) in response to the high unemployment. The largest ALMP, the Community Employment Programme (CEP was introduced in 1994 to target the long-term unemployed, offering participants temporary employment doing useful work within their communities on projects sponsored by their local organizations and funded by the Irish National and Training Authority (FÁS). As unemployment fell in the late 1990s and early 2000s, two independent reviews and other commentators criticized CEP for its limited impact on participants' employment prospects in terms of entry to regular employment, repeat participation, lack of targeting, and limited training. In response, the number of CEP placements was progressively reduced to around 1 percent of employment in 2003. The Job Initiative Programme (JIP) launched in 1996 was designed to provide full time work (for three years for individuals aged over 35 who have not had job in the last five years. Also from 1996, young people aged 18 and 19 unemployed for more than six months were required to register with FÁS. In 1998, under the National Employment Action Plan (NEAP), people under 25 who reached six months' duration on the Live Register were required to interview with FÁS and required to take up an employment or training or risk losing benefits.

18. **Fiscal incentives.** CEP participants are paid an allowance set by the government in place of unemployment benefits. Lone-parent and disabled participants are able to retain a large proportion of their benefits together with the CEP wage. Participants in JIP did not receive allowances for dependents but could qualify for the Family Income Supplement. Job creation initiatives were incentivized by a number of schemes (such as the pay-related social insurance (PSRI) Exemption and Back to Work Enterprise Allowance (BWEA) schemes introduced in 1992 and the Back to Work Allowance (BTWA) introduced in 1993). Under the first scheme, employers were exempt from making employer PRSI contributions during the first two years of employment. The BTWA provided an in-work benefit to support the recruitment of long-term unemployed workers in the private sector. The scheme operated by allowing individuals to retain secondary benefits together with a proportion of their social welfare payments for three years after take-up of a regular job. The BWEA provided continuation of welfare payments upon entry to self-employment. In 1998, the Employment Action Plan was adopted as a result of EU guidelines for a "preventive" approach to address long-term unemployment.

19. **Non-fiscal factors.** In the 1990s, total funding under the EU's Community Support Framework (CSF) exceeded 3 percent of GDP in 1992–94 and remained close to 2.5 percent of GDP until 1999. About 30 percent of the total funding—up to about 1 percent of GDP in the early 1990s—was devoted to investment in human resources, which was channeled mainly through the European Social Fund (ESF). The ESF funded training but not job-creation schemes such a CEP and JIP.

Deregulation and privatization of network industries

Telecommunications (1996–1999)

20. In the late 1970's, the government was concerned that the telecommunication system was failing to keep pace with Ireland's growing economy and falling behind those of its European neighbors. The Department of Post and Telegraphs was split into two state sponsored bodies, Telecom Eireann and An Post. The Postal and Telecommunications Services Act of 1983 authorized Telecom Eireann to formally take control of Ireland's telecommunications system. In 1996, the state owned monopoly was privatized partially after a strategic alliance of Telecom Eireann with the Comsource consortium, consisting of KPN and Telia, which purchased a 20 percent stake in the company and later exercised an option to buy a further 15 percent.

21. Ireland negotiated a two-year derogation of the EU directive to fully liberalize the telecommunications market from January 1998 (OECD 2001). Given signs that the government might lose out on important investment projects, the Minister for Public Enterprise decided in May 1998 to end the liberalization derogation with effect from December 1998, i.e. the full liberalization of the market took place a year earlier than negotiated. An independent telecom operator was set up, the Office of the Director of Telecommunications Regulation (ODTR), and twenty-one licenses were issued. Following the deregulation of the telecommunication market, Telecom Éireann sold Cablelink, Ireland's largest cable television company, in May 1999. In July 1999, the government's stake of 50.1 percent of the shares in the company, renamed to Eircom, was floated on the Irish, London and New York stock exchanges.

22. **Fiscal incentives.** The 1994 budget provided initial payment towards meeting the liability of the Post Office and Telecom pension fund incurred prior to its separation from the government's accounts. The 1996 Budget included provisions to reduce debt related to pension liabilities assumed by the government when the An Post and Telecom Eireann became public corporations and to supplement a reserve fund for the payment of the accumulated interest on postal savings schemes. Part of the Telecom sale proceeds was used to pay off, in 1999, the remainder of all future Exchequer pension liabilities arising from the service given by employees of both Telecom Eireann and An Post. The privatization provided a big one-off revenue increase for the Exchequer. The rest of the proceeds from the sale plus an annual 1 percent of GNP were set aside towards future costs associated with population ageing, in a National Pension Reserve Fund (NPRF).[23] The cost of the flotation for the taxpayer significantly exceeded the estimated cost.

23. A Telecom Partnership (TP, see below) provided the mechanism for agreeing that employees would obtain a 14.9 percent stake of the company as part of the privatization process through the establishment of the Eircom Employee Share Ownership Plan (ESOP), in exchange for significant changes in work practices, reduced employee numbers, increased employee pension contributions and the disbandment of existing employee benefit schemes. The ESOPs granted resulted in non-trivial losses of revenue to the exchequer while employees made substantial gains. The State offered 14.9 percent to the firm's employees, of which 5 percent was offered for changes in work practices and the rest was financed by a combination of loans and as a contribution to an Employee Share Ownership Trust (ESOT). Under the ESOT terms, Eircom could give tax-free compensation in the form of shares, so long as they are held for a fixed period (Palcic, 2001). The offer was mainly aimed at small investors rather than at institutional investors because the government favored extending share ownership in a population where fewer than an estimated 7 percent of households owned shares directly. The second reason lay in creating and sustaining public support for privatizing public

[23] Department of Finance, Stability Programme,1999-2000.

sector entities primarily because of fears of exploitation of market power. The Government gave the added incentive of end-of-year share bonus if shareholders held on to their shares till then.

24. Non-fiscal factors. Ireland opened up its telecommunications market in line with the European Union's requirements. Initially the trade unions opposed the restructuring of the state company. The Communications Workers Union (CWU), the largest trade union in Eircom, changed its stance and supported the strategic alliance in 1996 in exchange for employee participation and employee share ownership. Following the agreement of the strategic alliance in late 1996, trade unions and management formally agreed the Telecom Partnership (TP), an enterprise-level agreement between trade unions and the company that centered on the introduction of a new partnership structure and significant changes to levels of employment and work practices.

Postal services (1999–2011)

25. An Post, the Irish postal administration, came into existence under the Postal and Telecommunication Services Act of 1983. In 1999, the postal market was partly opened for competition for the first time. In 2000, the regulation of postal services was assigned to the telecommunications regulator, the ODTR, which imposed a stepwise opening of markets in 1998, 2003 and 2006. The 2011 Communications Regulation (Postal Services) Act marked the final stage in opening the postal services market to competition.

26. Fiscal incentives. Part of the receipts from the Telecom Eireann sale were used to pay off Exchequer liabilities associated with the pensions of pre-1984 staff in Telecomm Eireann and An Post. This meant that the Telecom Eireann and An Post pension liabilities changed from "pay as you go" pension schemes to a "funded" pension scheme. The transfer of money to the funded scheme was treated as a capital transfer, and therefore, negatively affected the general government balance in 1999 (1999 Convergence Report).

27. Non-fiscal incentives. The reform was required by the EU's Postal Services Directive (EU Directive 97/67/EC of the European Parliament and of the Council of 15 December 1997 on common rules for the development of the internal market of Community postal services and the improvement of quality of service).

Electricity sector (2000-2005)

28. The basic regulatory framework for the electricity market was set up when in 1999 an independent regulator, the Commission for Energy Regulation (CER), was established to oversee the reform process. The generation and supply of electricity were first opened to competition in 2000. The market was fully liberalized in February 2005 when all electricity consumers were given the right to freely choose their licensed supplier. Under the new legislation, the Electricity Supply Board (ESB) was transformed into a public limited company; however, the benefits of liberalization were curtailed by the fact that the vertically integrated ESB continued to dominate the market. The company owned the transmission grid and around three-quarters of the generation capacity which vested it with immense pricing power. An all-island wholesale electricity and gas market was established in 2007. To further curtail ESB's market power, the government ordered the company to transfer its ownership of the transmission network to EirGrid by the end of 2008, and sell some generation plants to reduce its market share to 40 percent by 2010.

29. Fiscal incentives. To incentivize a smooth privatization process, the government invested heavily in the development of the electricity infrastructure. The National Development Plans provided for investments in key strategic energy infrastructure projects in the period of 2007–2013.

30. Under the ESB's Cost and Competitiveness Review program (1992–96), 2800 employees departed the state company voluntarily or retired early. Severance terms were exceptionally generous; the existing pensioners and beneficiaries of the ESB pension scheme were promised protection; workers were also promised a share in the profit and a five per cent stake in the company upon its transformation into a limited liability company. Strikes or any other form of industrial action were prohibited. Some jobs were preserved, notably in peat generating stations. Peat, the traditional fuel in Ireland, provided 7 percent of the total electricity production under a long term agreement with the ESB. Electricity production using peat was heavily subsidized by the government given its production in areas with high unemployment rate. There was also a legislation according to which the relevant minister could impose on ESB the requirement that up to 15 percent of the energy used was generated by peat plants in any given year. New peat stations were constructed in line with the orderly closure of existing old stations.

31. Non-fiscal incentives. The second EU Electricity Directive (2003/54/EC) was a major incentive for the full liberalization of the electricity sector.

Deregulation of product markets

Taxi market (1998–2000)

32. The Dublin taxi industry was under State licensing control until 1997. Almost no new taxi licenses were issued during 1978–91, resulting in poor taxi services which could not keep pace with the strong demand driven by the substantial economic growth of the 1990s. Additional taxi licenses were issued over time, first by the government, and subsequently by the Dublin Corporation which became responsible for taxi licensing after 1995. In 1998, a team of consultants examined the situation in response to consumer pressures, and concluded that an immediate doubling in taxi numbers was warranted to address supply shortages. While favoring complete liberalization of entry to the market, the consultants recommended a gradual approach to full liberalization over 10 years to ensure an orderly market transition and to avoid substantial losses for taxi drivers that had recently purchased taxi licenses in the open market at elevated prices. The implementation of these recommendations was stalled by litigation and threats of strikes. In 2000, the High Court ruled that the government could not restrict the granting of additional taxi licenses to existing license-holders. On 12 November 2000, the government introduced new regulations setting up a new licensing system that provided for uniform national fees and banned local authorities from imposing any numerical limits. The result was an immediate and full liberalization of entry to the taxi market.

33. **Fiscal incentives.** The taxi license holders went on strike protesting the 2000 regulation and sought judicial review in the High Court to overturn the new policy and retain their protection against competitive entry. As a conciliatory gesture to current license holders who suffered a loss in the capital value of their licenses, a special tax-relief provision for license holders to write off their capital loss over a number of years was introduced. Taxi drivers were able to fully write-off the cost of a taxi license over five years of the actual vouched cost of the license, backdated for three years to November 21 1997, in line with the provisions of the Finance Bill (2001) Preliminary List which set out the conditions for capital allowances for existing taxi license owners. A license owner who drove his own taxi was able to write-off the full capital cost of the license against trading income over a five-year period whereas a license owner who drove a vehicle and rented it out on a part-time basis was allowed to set off the licensee cost against trading and rental income.

Partial deregulation of public houses (1998–2000).

34. As a result of legislative barriers to issuing new licenses for public houses, the number of licenses for new pubs fell sharply by 1998. Limitations on the transfer of licenses implied that there were many pubs in rural areas with depleted population and relatively fewer pubs in densely populated areas such as Dublin. New entrants started circumventing these restrictions. Rather than eliminating the barriers to entry in the sector, the government imposed temporary price controls. In 1998, the Competition Authority called for the repeal of all entry restrictions other than controls based on the suitability of the applicant and the premises. Several cartel actions involving pubs were brought by the Competition Authority. The Department of Justice, Equality and Law Reform, in charge of examining the licensing laws, established a commission to investigate the liquor licensing system more generally. To ease supply constraints in Dublin and in other cities, a law adopted in 2000 permitted regional transfer of pub licenses and extended opening hours. Strong opposition from vested interests (powerful pub lobby, the Catholic Church, banks which used licenses as collateral, etc.) has prevented the government from completely liberalizing this sector.

35. **Non-fiscal incentives.** The Competition Authority called for ending the licensing regime, and resorted to law enforcement in some cases.

Grocery retailing (2000–2006)

36. There were repeated calls for reforming special rules governing grocery retailing dating back to 1956. Instead, the 1987 Restrictive Practices (Groceries) Order introduced a ban on sales of non-perishable grocery items below their invoiced price, and obliged wholesalers to charge the same price to all retailers. Effectively, a large buyer could negotiate a discount for buying in bulk but these typically were off-invoice and therefore the savings could not be passed on to the consumers. Another obstacle to competition in the retail sector was the Retail Planning Guide which imposed a cap on floor space in an attempt to avoid “superstores” on the fringes of towns because they are viewed as a blight on the landscape or in order to protect small local shopkeepers. In 2006, the Order was repealed though an amendment in the Competition Act. The new regulations stipulated that retailers in the grocery sector were no longer subject to regulatory constraints in determining the price at which to sell groceries. The Act also banned a number of practices in the groceries sector which limited competition.

37. Non-fiscal incentives. The Competition Authority advocated the repeal of the Groceries Order.

Deregulation of professional services (2007)

38. The lack of competition in the pharmacy sector stemmed from strict limits on the number of university places as well as a cap on the number of outlets and their location. There was also restriction on economic freedom of pharmacists educated in other EU countries. The number of pharmacies was determined by "definite public health need." Besides these quantitative rules, local health boards also considered the effect of the new entrants on existing pharmacies. The pharmacy sector was reformed with the introduction of the 2007 Pharmacy Act. The governance of the statutory regulator (Pharmaceutical Society of Ireland) was overhauled to replace a pharmacist-dominated governing Council with a new Council featuring a lay majority. The reforms abolished the "three-year" rule that restricted the entry of foreign-trained pharmacists.

39. Some entry barriers to barristers' and solicitors' professions were also removed in 2007. The Bar Council implemented a set of measures to reform of the barrister profession, including the removal of restrictions to advertise and barriers to switching between the professions of barrister and solicitor; the removal of unnecessary restriction on consumers switching from one barrister to another. New barristers were allowed to act for former employers, and part-time practice was permitted as well. The government abolished the existing basic Irish Language competency requirement for both barristers and solicitors, and replaced it with a voluntary system of high level Irish Language training. During the same year, entry barriers to the market of professional services of architects, dentists, optometrists were also partially removed.

40. Non-fiscal factor. As part of its statutory function, the Competition Authority carried out a number of studies in a variety of sectors of the economy prior to 2007 and made recommendations aimed at improving competition in these sectors. The 2007 deregulation of these professional services was a direct result of those recommendations.

CASE STUDY: THE NETHERLANDS

A range of structural reforms were implemented between the 1980s and the early 2000s with ad hoc use of fiscal incentives. Social security reform was complemented by financial incentives aimed at employers, employees and municipalities, in particular, tax incentives (especially close to the minimum wage) to moderate wage costs and programs targeted at low-skilled workers and the long-term unemployed. Product market reforms were primarily incentivized by the European Union's Directives. The existence of a social consensus on the need for labor market and social policy reforms—for example, the 1982 Wassenaar Agreement—enhanced ownership and was an important driver of the Netherlands' sustained reform efforts.

A. Reform Phase: 1982–93

1. Economic context. The Netherlands suffered a severe post-war recession during 1980–85, followed by a period of slower growth and higher inflation in the early 1990s. Poor economic performance and rapidly rising labor costs led to a surge in unemployment to 14 percent in 1983—a level seen as constituting a crisis. By the early 1980s, non-wage labor costs had risen rapidly to support redundant labor and safeguard public finances (Eichengreen, 2007, OECD 1983). The participation rate declined sharply. Amid slack labor market conditions for unskilled workers, the disability scheme was used as an alternative to unemployment benefits, with the number of beneficiaries rising rapidly (OECD 1993). The Netherlands had a coordinated wage bargaining system, whereby a group of union experts determined the appropriate level of wage growth for contract negotiations. There were strict and widespread licensing rules and administered prices in the public sector. On the fiscal front, the budget deficit was large, reaching 5.6 percent of GDP in 1982. Social spending stood at 21 percent of GDP in 1984 (Visser and Hemerijck 1997). The initial reform effort comprised three phases: wage moderation in the early 1980s; social security in 1983, 1987 and the early 1990s; and labor market activation measures (Van Ours 2010).

2. Political Context. In 1982, a new coalition government of Christian Democrats and Liberals came to power. This coalition committed to a deep reorganization of public finances, lower interest rates and inflation, improving business profitability, lower labor costs, industrial restructuring and less regulation, and work-sharing without extra costs to business in order to reduce unemployment (Visser and Hemerijck 1997). The 1989 coalition Agreement specified that the collective tax burden (the ratio of taxes and social security contributions to GDP) should not rise above its 1990 level, with most of the adjustment to come from public spending, especially subsidies and transfer payments.

Wage moderation and flexibility

3. The 1982 coalition government put pressure on social partners to agree to a wage moderation compromise (Askenazy 2015). The 1982 Wassenaar Agreement was an agreement between trade unions, employers and the government to lower wages, foregoing nominal wage increases and suspending the payment of cost-of-living adjustments in 1983 and 1984 in order to increase competitiveness (Visser and Hemerijck, 1997). The Wassenaar Agreement led to a reorientation of the central organizations of unions and employers towards a coordinated model of negotiated central guidelines for responsible wage bargaining. It signaled a return to wage moderation as the principal job growth strategy for Dutch trade unions, and, a transition from a centralized collective bargaining system to a decentralized but highly coordinated system. In 1989, there was another accord between employers, unions and the government on wage developments and labor market policy. The 1993 "New Course" accord between unions and employers proposed further wage bargaining decentralization and flexibility in exchange for the possibility of a reduction in working hours and the participation of local union representatives in labor negotiations.

4. Non-fiscal factors. The Wassenaar agreement incentivized trade unions to accept wage moderation with a reduction in working hours, with employers lifting the ban on work weeks under 40 hours. In many industries, workweeks were shortened to 36 hours from 38 hours (Askenazy, 2015). The reduction in working hours was also seen by trade unions as a way to stimulate employment. In negotiations between social partners that followed the 1993 STAR recommendations, a standard 36-hour working week was introduced for the majority of employees (Salverda et al. 2008).

Unemployment benefits and disability insurance reform

5. In 1986–87, unemployment benefits were reduced and the maximum duration was lowered from thirty to six months. In 1991, the government announced a package of measures altering various aspects of the system of social protection. This included: financial incentives to discourage sick leave and disability schemes by employers and employees (for example, increasing the financial consequences of sickness and incapacity for employers by introducing employer liability for an initial period of sick pay and contribution differentiation); a reduction in the generosity of the disability system; and a more stringent control of sick leave and access to the disability scheme (OECD 1993). Changes to the levels of benefits were implemented in 1993 (OECD 1994). The minimum wage and social benefits were linked to wage growth in 1990–91. In 1992 a new law made this link conditional, removing the government's obligation to respect the full linkage in case of "excessive" wage growth, or if the number of social security beneficiaries increased enough to require hikes in tax rates and social security contributions. Work requirements were increased for disabled people. In 1992–93, the disability insurance system was further reformed with bonuses for firms engaging partially disabled people, and fines for firms whose employees became disabled (Eichengreen 2007).

6. Fiscal incentive. In the context of the 1992–93 reform of the disability insurance system, the minimum age for early retirement was reduced from 59 to 55, while the employers' contribution to the early retirement scheme was increased from 3.9 to 5.4 per cent of gross salaries in 1992 (OECD, 1992).[24] In addition, the reforms included bonuses and fines for firms engaging partially disabled people (Eichengreen 2007).

7. Non-fiscal incentive. Existing beneficiaries aged 35 and over (70 percent of the total, OECD 1989) continued under the previous disability system (grandfathering). The reforms reflected the use of collective agreements to offset changes in public benefits (OECD 2009).

Active Labor Market Policies

8. Direct public sector job creation was used extensively in the 1970s, particularly in labor-intensive sectors such as infrastructure and construction. By the mid-1980s, these policies were significantly downsized. In the 1990s, the government shifted its focus to the supply side, with the aim of improving skills and enhancing reintegration of the unemployed into the labor market. In 1992, the Youth Work Guarantee Plan was introduced, offering the youth six-month work contracts in municipalities subsidized by the central government. Similar programs which subsidized jobs for long-term unemployed workers, the Labor Pools and Melkert, were introduced between 1990 and 1995, although with limited success (OECD 1998). The Job-seekers Employment Act (WIW) consolidated the Labor Pools and Youth Work Guarantee Act. In 1994, policies were put in place to increase labor force skills and competencies and increase the through-flow of long-term unemployed.

9. Fiscal incentive. Employers hiring workers at the minimum wage were eligible for a 10 percent reduction in labor costs (Wage-Cost Reduction at the Minimum Wage Level Law of April 1990 – Wet Loonkostenreductie op Minimumloonniveau, WLOM). The Vermeend Act gave an exemption to employers' social security contributions supplemented by a subsidy for firms hiring the long-term unemployed. In 1990, social security and other labor taxes were reduced, resulting in a reduction in half of the tax wedge for workers earning the minimum wage. The Oort tax reform, introduced in 1990, lowered the tax burden and reduced the tax wedge, lowering taxes mainly for income brackets up to twice the average income (OECD 1992).

B. Reform Phase: 1994–2006

10. Economic context. The macroeconomic policy mix turned accommodative around the start of the reform wave in 1994. Strong confidence in the Dutch guilder throughout the 1993 European Exchange Rate Mechanism crisis allowed the Netherlands to keep the lowest interest rates in the European Union, and to cut policy rates by over 400 basis points between 1992 and 1994. The corresponding easing of monetary conditions was substantial, although it was somewhat dampened by the appreciation of the real effective exchange rate. On the fiscal policy front, the significant

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[24] The reforms of the disability insurance system were temporary, as they were partially reversed by collective agreements between the social partners, as well as by a softening of government policy once DI inflow numbers began to fall (OECD 2009). The government also restored the indexation of the legal minimum wage and social security benefits to the contractual wage index in 1996 (OECD 1996).

consolidation of the early 1990s came *de facto* to a halt in 1994–1995, with a small weakening of the cyclically-adjusted balance (Duval and others, 2016). The relatively strong growth in the 1990s was driven mainly by employment growth. Unemployment fell to 6½ percent in 1992 and trended down to 3½ percent in 2001. However, low productivity growth, partly a reflection of the rising employment of less productive workers in services, remained a concern. As of 1993, public spending on disability benefits at around 5 percent of GDP, the highest ratio in the OECD (OECD 1998). Although the number of claimants dropped during 1993–96 due to a redefinition of disability by the government, the number of claimants rose again starting in 1996 partly due to demographic factors. On the product market side, competition was relatively low until the late 1980s, reflecting widespread, restrictive and complex licensing rules and cartels (OECD 1996).

Privatization and deregulation of industries

11. In contrast with many other European countries, the Netherlands did not undergo large-scale nationalization in the post-war period (OECD 1998), and therefore its privatization program was more limited. Privatization was gradual, with 61 public activities, including telecom, privatized between 1983 and 1991. The most significant privatization measures (notably in the airline and postal services sectors) took place between 1993 and 1995.

- *Telecom and postal services.* Telecom was privatized in 1988, the monopoly on value-added network services of the Posts and Telecommunications was ended in 1989, and satellite services and mobile communication systems were liberalized in 1992. The 1998 Telecommunications Act abolished the need for licenses for infrastructure or services, and two national telecom licenses were auctioned. Postal services were partly privatized in 1994–95, with sales that reduced the government's ownership share in KPN (Post and Telecommunications) to 48 percent and the EU Postal Directive was implemented in 1998. The second instalment of the flotation of KPN reduced the government share to 45 per cent. Part of the proceeds from the sale of KPN was used to finance the construction of the Betuwe railway and the high speed railway (OECD 1996).

- *Energy*. The 1998 Electricity Act liberalized the production of electricity. The gas sector was liberalized in 2002. The management and legal ownership of networks were separated. A separate sectoral regulator, DTe, was created within the Competition Authority (NMa) with the power to set maximum tariffs via a cap system for captive users (OECD 2000 and 2004).

- *Transport.* Air transport was deregulated in 1993; in 1996, the government reduced its share in KLM to 25 percent. The railway sector was liberalized in 1995.

- *Professional and retail services.* A special Ministerial Commission was created for the purpose of conducting a systematic assessment of the impact of draft legislation on business and the environment. This Commission was tasked with strengthening competition and legislative quality, and limit regulation and the administrative burden. It considered the Shop Hours Act and lawyers' monopoly, leading to the liberalization of shop hours and increased competition among lawyers (OECD 1998). Rules regulating shop-opening hours were significantly liberalized in 1996. The Economic Competition Act was expanded in 1994 to cover all liberal professions. More competition was introduced among lawyers in 1997.

12. **Non-fiscal factors.** EU policies to open markets to competition (such as the EU Postal Directive, the EU Gas Directive) played an important role in fostering reforms, with the government aiming to align Dutch competition policy with EU practices and to prepare the Dutch economy for increased integration. For the liberalization of professional services, there was a transition period (grandfathering) for some professions such as a two transition period for public notaries.

Competition policy

13. The Netherlands had several cartels especially in industries such as construction, liberal professions and power generation. The degree of competition was low in sectors not exposed to international trade and in the public sector, in particular utilities, public transport, and housing. Concerns about economic impacts and market incentives grew over time. Regulatory reform was for a long time perceived as an area reserved to legal experts, and the Ministry of Justice played a leading role in putting regulatory reform on the political agenda (OECD 1999).

14. In the late 1980s, the government gradually overhauled competition policy. Horizontal price arrangements between companies were prohibited in 1993–94. A new Competition Act of 1998 declared abuses of dominant positions and restrictive agreements and practices illegal, and introducing a system of preventive merger control. The Netherlands Competition Authority (NMa) was created to enforce the system of preventive merger control. The government introduced three general prohibition decrees based on the Economic Competition Act, with criteria based on Article 85.3 of the EU Treaty. A new and more general competition law ("Establishment Law") was introduced in 1996 based on the principles of EU rules of competition. The law greatly reduced the number of establishment licenses from 88 to 8, and introduced government control of mergers and acquisition (OECD 1996). Dutch product market reform also included the Market Forces Deregulation and Legislative Quality Project (MDW), which was based on an interdepartmental and interdisciplinary approach to cost-benefit analysis (OECD 2002).

15. **Non-fiscal incentive.** A major objective of the new competition law was to make Dutch competition policy consistent with EU directives on competition (OECD 1999). In addition, changes to consultation processes, which de-emphasized consensus seeking and collusive elements, may have reflected a change in attitudes toward market forces (OECD 1999).

Wage moderation and flexibility

16. In 1993, social partners agreed to a central wage agreement limiting the scope for wage increases in 1994 until 1997. Bottom pay scales (close to the minimum wage) and opening clauses (allowing workers to be paid below the minimum wage set in collective agreements) were also encouraged by the government (OECD 1998), with limited progress.

17. Fiscal incentive. The government supported wage-cost moderation through cutbacks in social security, lower minimum wages and taxes (OECD 1998). Taxes and social security contributions were reduced more than initially agreed through general tax reductions and specific tax cuts aimed at reducing wage costs for the lower income groups (SPAK policy, introduced in 1996, OECD 1998).

18. Non-fiscal incentive. Agreement on no collective wage increases until October 1997 was made in exchange for the introduction of a 36-hour work week in the banking sector and several other sectors (OECD 1998). A new collective wage agreement for state civil servants was reached, introducing a 36-hour work week starting in 1997. The government made the application of the 1937 Collective Agreement Act dependent on "substantive outcomes" of wage bargaining, especially for measures beneficial to unskilled workers' employment prospects (Visser and Hemerijck 1997).

Sickness and unemployment benefits, disability insurance

19. In 1991–93, several changes were introduced, including a bonus-malus system to discourage the use of the sick leave system by employers and employees,[25] a reduction in benefits, and a more stringent definition of disability. Spending on disability pensions began rising again in the 1990s, and in 1996 the government shifted the costs of sickness benefits to employers (i.e., abolishing the public sick-leave scheme) and lengthened benefit duration. In 1996, the public sickness benefits scheme was abolished and employers had to continue paying wages for their sick employees for up to a year. In 1998, the government shifted part of the costs of disability benefits to employers and introduced experience rating of employer disability insurance contributions to reflect disability rates at the firm level (CBPP 2015). The government reached agreement with the coalition parties on a revision of the disability scheme, including premium differentiation and the possibility of temporarily opting out of the public scheme. A new law on administrative penalties in social security came into force, banning unemployment benefits in cases of voluntary unemployment (OECD 1998). In 2006, the maximum length of unemployment benefits was lowered from 60 to 38 months.

20. Fiscal incentive. The increase in social security contributions was offset by lower direct taxes (OECD 1998). In 1996, Dutch employers' social security contributions for workers with wages representing 115 per cent or less of the legal minimum wage were cut. Moreover, if these workers' wages increased above 115 per cent of the legal minimum wage, employers are still entitled to one-half of the 1996 tax cut for a maximum of two years. Additional temporary tax cuts were introduced for employers hiring long-term unemployed (OECD 1998). Enterprises were given subsidies for employing disabled people (OECD 1996). Financial incentives were introduced for employers,

[25] The bonus malus scheme was abolished in 1996.

employees and implementing bodies to increase the financial consequences of sickness and incapacity for employers and employees (OECD 2007).

21. Non-fiscal factors. Following the 1994 elections, which resulted in the so-called "purple" coalition led by Wim Kok and composed of the Social Democrats, Liberals, and Democrats, there was a political agreement to continue social security reforms, including a disability scheme. The political agreement entailed the use of financial incentives and introduction of some competition in the welfare system to enhance its efficiency, and reorganization of social security administration. In the approved version of the disability bill, the level of benefits of people already in the scheme was not reduced (grandfathering), while the reduction in benefits for new claimants was increased. Two other types of incentives were introduced: responsibility for employers and employees (e.g., by increasing the responsibility of employers for reintegrating their sick employees), and enhancement of the activation of the system (e.g., toughening the eligibility conditions for benefits) (OECD 2007).

Employment protection legislation

22. In 1999, the Flexibility and Security Law (Wet flexibiliteit en zekerheid, Flex Act) was introduced to promote the use of fixed-term contracts, make probation periods dependent on the length of the contract of employment, and ease dismissal procedures. Specifically, the law increased the maximum possible number of fixed-term contract renewals (two in three years) and lengthened the maximum total duration of contracts with temporary work agencies (OECD 2004). In 2006, the government introduced measures aimed at lowering dismissal costs, replacing the last-in-first-out principle with a "reflection" principle. The latter entailed that workers be selected to match the age composition of firms' employees (OECD 2008). The scope of the culpability test was also narrowed, thereby reducing legal and administrative costs resulting from dismissals.

23. Non-fiscal factors. In order to improve labor mobility a law was introduced in 1996 to allow employees to transfer the value of their accumulated pension rights to their new employer, who must accept this value in terms of their own pension system.

Active labor market policies

24. The 1998 PEMBA law introduced measures to improve reintegration of partially disabled people. Under the Job-seekers Employment Act (WIW), responsibilities were delegated to local authorities, including the appropriate mix of work, training, education, social activation, and financial incentives. In 2004, municipalities took over financial responsibility for social benefit budgets (Work and Social Assistance Act) increasing the incentives for municipalities to reintegrate benefit recipients into the labor force. The 2003 Work and Income Act provided municipalities with an "income fund" to finance means-tested assistance payments and a flexible "work fund" to finance employment or reintegration services (OECD 2013). In 2004, the government re-introduced job-search requirements for older unemployed people, and abolished follow-up unemployment benefits for new inflows into the unemployment benefit scheme (OECD 2004). In 2006, several tax advantages tied to early retirement were repealed. The WIW Act introduced a new subsidized work contract with regular employers ("work experience place").

25. Fiscal incentive. A general cut in taxes and social security contributions, selective tax reductions and fiscal incentives were introduced to promote job creation at the lower end of the labor market (OECD 1996). Temporary wage cost subsidies aimed at the creation of low-skilled jobs for the unemployed were introduced in 1994. The government subsequently introduced permanent tax relief for firms hiring low-wage workers, and temporary tax relief for firms hiring long-term unemployed workers. A large number of subsidized jobs was also created (OECD 1998). Melkert 2 through 4 programs were financed by social security benefit savings and contributions from the central government (OECD 1998). In 2001, the government introduced a general labor income tax credit, which aimed at reducing poverty traps by incentivizing work and was increased in 2004, together with the special working parents' tax credit (OECD 2004).

Disability insurance

26. In 2006, a major reform made requirements for partial disability insurance (DI) more stringent, and introduced work requirements and time limits for some benefits. A consensus was achieved on the need for reform. In the early 2000s, the government took special care to ensure that collective agreements would not subvert the reform and lead to a reversal of policy once things began to improve. The government also reduced the social partners' role in administering the system, thereby reducing the risk that the reform would be diluted or undermined (OECD 2009). Negotiations with trade unions in late 2004 involved the bundling of DI reform with a number of other labor market and social insurance reforms aimed at improving labor force participation.

27. Non-fiscal factors. A parliamentary inquiry in the mid-1990s exposed the extent to which the DI problem was exacerbated by the social partners' management of the system, fundamentally changing the debate about DI reform. In addition, a growing body of research into DI issues created the basis for consensus. There was wide recognition that the DI system was failing. While the trade unions wanted to preserve generous benefits and resist what they saw as unacceptably harsh activation measures, they nevertheless accepted that the system was bound to change. Public opinion, too, came to recognize the need for change, so the parties forming the government after the 2002 and 2003 elections could credibly claim a mandate for reform. Employers were open to fundamental reform because the incremental reforms of the 1990s and early 2000s had forced them to bear more of the costs of the status quo directly (OECD 2009). Finally, the economic slowdown of the early 2000s generated fiscal pressure for reform (OECD 2009).

28. Government leadership was also important. The work of the cross-party government appointed "Donner committee" in 2000–01 provided the basis for a set of proposals that could be widely accepted. These reforms were debated in consultations involving business, labor and the state. However, government leadership was crucial throughout, and the reform ultimately went beyond the proposals (OECD 2009) provoking a conflict with the unions that was finally settled as part of a much larger tripartite agreement. Sequencing was also important, since prior administrative reforms and the adjustments to employer responsibilities in the late 1990s made it much easier to adopt and implement the restructuring of the WAO system. Finally, those already receiving DI benefits before 2004 kept benefits awarded under the previous rules (although in some cases disability status was reassessed under the new criteria introduced as part of the reform).

CASE STUDY FOR THE UNITED KINGDOM

Strong reforms were introduced as part of a broad package of comprehensive labor and product market reforms after the Conservative government won the 1979 election on an economic platform of structural reforms. Labor and product market reforms were supported by income and corporate tax rate cuts to cushion the impact on low income workers and incentivize businesses, as well as ALMPs to support the re-entry into the job market. The privatization of large state enterprises was incentivized by encouraging shareholding by employees and management.

A. Reform Phase: 1979–88

1. Economic context. During the 1960s and 1970s, Britain suffered from high inflation, low growth and difficult industrial relations. High inflation was partly due to wage pressures and increasing government spending. After the first oil price shock, the United Kingdom entered a recession and experienced a balance of payments crisis in 1976. Wage controls and spending cuts were introduced in the context of a Stand-by Arrangement with the IMF. In 1980 the recession deepened and unemployment rose sharply. A comprehensive structural reform program was implemented to address difficult macroeconomic conditions by reducing the state’s role in economic decision making and achieving a better functioning market system. In addition, there were efforts to reduce the budget deficit by restricting expenditure (especially investment spending).

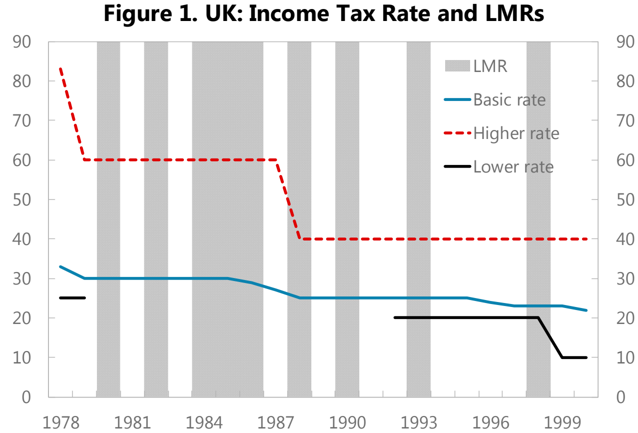
2. Political context. The ideas of Friedrich Hayek and Milton Friedman gained supporters on the right who advocated tackling inflation, increasing the role of markets and limiting the size of government in order to turn the economy around. Margaret Thatcher won the 1979 elections on an economic platform of structural reforms. This included reducing the state’s role in the economy; improving work incentives in benefit programs; reducing the direct tax burden; reforming trade unions; limiting institutional interventions in the free market and unleashing the powers of entrepreneurship and competition by privatizing nationalized industries and removing or reducing institutional impediments. The government also sought to reduce inflation through demand-management policies to achieve sustained non-inflationary growth over the medium term.

Unemployment benefit reform[26]

3. The Conservative Government won the 1979 elections on an economic platform of structural reforms, which included improving work incentives in benefit programs. The reforms sought to improve incentives to work and save, simplify the system, concentrate resources where needed, and put social security finance on a sound basis. To improve work incentives, the Social Security Act (No.2) Act 1980 reduced net unemployment benefits by abolishing Earnings Related Supplement (ERS) starting in 1982; suspended the statutory indexation of benefits and made taxation less favorable; and, tightened the eligibility criteria for benefits, especially for young people. The Social Security Act of 1986 allowed the government to vary increases in benefits, and doubled the maximum period of benefit disqualification (which was further doubled from 1988). The Social Security Act of 1988 tightened the contribution requirements for national insurance benefits, and together with the Employment Act 1988, made major changes in the income support for school-leavers aged under 18. The administration of benefits was improved. The number of Unemployment Review Officers (UROs) was increased and their operations extended. Initiatives to investigate fraud followed. The 1986 Restart program sought to better monitor job-seeking efforts.

4. **Fiscal incentives.** The restructuring of income-related benefits occurred at the same time as the reform of personal taxation. From 1977 to 1988 the basic and top rates of personal income tax were progressively reduced from 34 to 25 per cent and from 83 to 40 per cent, respectively. The 1978–79 Budget introduced a lower tax rate of 25 per cent on the first £750 of taxable income to alleviate the fiscal burden on low incomes, but this rate was abolished in 1979–80. During 1979–1988 period the income tax thresholds were also raised progressively to concentrate the greatest relative benefit on those with low incomes. Personal

Figure 1. UK: Income Tax Rate and LMRs



Sources: HM Revenue & Customs (The National Archive); and OECD.

[26] Source: Atkinson and Micklewright (1989).

income tax allowances were raised in the 1979–1980 budget, followed by additional increases in 1982, 1984, and 1988.

5. The government also tried to assist the unemployed with a number of schemes. This included an Enterprise Allowance to help unemployed persons who wanted to start a business but were deterred by the fact that they could lose their entitlement to unemployment or supplementary benefits.[27] To reduce frictional unemployment, the government reduced impediments to, and incentives for, labor mobility. The number of Job Centers, providing a flexible mix of self-service, information about vacancies and employment advice, was increased. Legislation was introduced to deal with two particularly important impediments to mobility—occupational pensions tied to firms and geographical immobility due to inflexibilities in the housing market.

6. The government also sought to reduce the relative cost of labor and improve work incentives. The National Insurance Surcharge was reduced and subsequently abolished in 1984 for most employers. The restructuring of National Insurance contributions from 1985 lowered employers' labor costs on low-wage workers. These measures were aimed at encouraging employers to hire lower-paid workers, while increasing the costs of employing highly-paid workers.

Collective Bargaining Reform

7. The Thatcher government won the 1979 elections on an economic platform which included reforming trade unions and limiting institutional interventions in the free market. In 1979, the government and the Trade Union Congress (TUC) agreed on a common new approach to industrial relations whereby the TUC would issue guidance on negotiating procedures for avoiding disputes, the conduct of disputes and closed shops; and there would be a national assessment of the country's future each year between the government and both sides of industry.

8. The government introduced a series of legislative reforms—Employment Acts of 1980, 1982, 1988, 1990, 1993 and the Trade Union Act of 1984—which substantially constrained industrial action. These reforms removed legal immunities for picketing other than by employees at their place

[27] Government schemes to help the unemployed also included: a job-splitting grant to help employers provide more part-time work to unemployed, and a community program scheme enabling the long-term unemployed to do community work and voluntary activities. Other programs included the Job Release Scheme and the Young Workers Scheme and measures to improve industrial training (see ALMP section).

of work and for secondary industrial action; extended the grounds for refusing to join a union; introduced and strengthened the rights of employees dismissed for refusing to join closed shops; prohibited forced contracts with union employers; and weakened the closed shop and union immunities. They also instituted secret ballots to approve new closed shops; removed legal immunities from civil actions. The 1993 Employment Act focused on improving union governance and security, and ensured that individuals were to be free to join any union at the workplace.

9. Fiscal incentive. The 1980 Act also made provision for budgetary funds to reimburse unions for secret ballots on industrial action and union elections, although these were ultimately to be phased out at the end of the reform interval (http://www.legislation.gov.uk/ukpga/1980/42/section/1/enacted.)

Wage flexibility

10. In the 1970s the government gave workers greater protection against unfair dismissal as part of a quid pro quo for agreement on wage moderation with the unions. Formal centrally-determined pay norms came to an end in 1978–79 and the government announced its intention to limit its intervention in the price and income determination process, stressing that the social partners in free collective bargaining should accept responsibility for the consequences of excessive pay settlements. In 1979, the government and the TUC agreed on a common new approach to industrial relations whereby there would be a national assessment of the country's future each year between the government and both sides of industry. Starting in 1983, the government allowed unions and management in the private sector to pursue pay bargaining free from any government intervention (except in the Wages Councils), while retaining some influence in the public sector. The diminished role of the government in influencing pay was helped by the various acts of denationalization and sales of publicly-held assets, which led to a fall in the numbers employed in public corporations (OECD 1984).

11. The Wages Councils—comprising representatives of employers and trade unions—set minimum pay rates but also rates for different grades of workers, holiday pay and other terms of employment. Over time, the number and membership of the Wages Councils diminished significantly, largely due to structural changes. This led to a diminishing effect on pay agreements over time, although by setting a floor on wage levels for a certain group of workers they could still influence the pay of many others. Under the 1986 Wages Act, the government limited the powers of the Wages Councils. The 1993 Employment Act removed the vestiges of statutory wage fixing machinery by abolishing the remaining Wages Councils and their statutory minimum pay rates. A Low Pay Commission was established in 1997 as an independent body to consult unions, employers and other interested parties on the potential implications of a minimum wage and to make recommendations on the level and other design features that the minimum wage should take. The National Minimum Wage Act (1998) created a minimum wage across the UK from 1999 onwards.

12. Fiscal incentives. The government encouraged changes in the remuneration system by offering tax incentives to link pay to profits. In 1978, the government established a profit-related share scheme. This was followed by the introduction of share options schemes in the 1980s (OECD, 1988).

13. Non-fiscal factors. The diminishing clout of trade unions and collective bargaining helped improve wage flexibility, as did the structural decline in the membership and number of Wage Councils.

Reform of Employment Protection

14. In the 1970s, there were rigid demarcation between different crafts in the United Kingdom. Such restrictive work practices led to inefficiencies in some production processes as a result of unions attempting to maintain employment levels in declining industries or industries where new technology offered scope for labor saving. This system led to bottlenecks, lowering productivity.

15. In addition to the reduced scope for collective bargaining (see above), the government changed some of the provisions for employment protection. In 1980, the period of employment before complaints of unfair dismissal could be made, was lengthened from six to twelve months, and, in 1985, to two years for firms with less than twenty employees. The onus of proof on the employer in unfair dismissal cases was changed and the requirements for advance notice of redundancies involving less than one hundred people was reduced (OECD 1986). The 1988 Employment Act repealed most legislation that discriminated in employment and training matters between men and women; removed numerous restrictions on the hours of workers aged 16–18, and eased rules governing dismissal of staff.

16. Fiscal incentive. These reforms were accompanied with cuts in income tax rates and other labor market reforms (see above). The Job Release Scheme introduced in 1977 encouraged early retirement, making it easier for older workers to give up work early to release their jobs to unemployed people. This scheme offered a weekly allowance from the date of retirement until the state pension age, provided the applicant's employer agreed to replace him or her by an unemployed person (OECD 1986).

17. Non-fiscal factors. Toward the end of the 1970s there was heightened awareness that industrial unrest, restrictive work practices and the structure of collective bargaining were seriously impeding economic performance. The weakening of the unions contributed to greater flexibility in the labor market in changing working practices. Changing trade union attitudes, given that many companies risked bankruptcy unless labor saving economies were made, could help explain the rapidity with which workforces were reduced without major industrial disruption (OECD 1983b). More generally, the government also encouraged the creation and development of business and to reduce the burdens imposed on business by administrative and legislative regulation.[28]

Active Labor Market Policies

18. The government introduced several employment-creating and training schemes in 1975 with the aim of alleviating unemployment among young people hit by the recession. The scope and number of such schemes was considerably increased over time.[29] For instance, the Youth Opportunities Programme (YOP), introduced in 1977 to provide training courses and work experience schemes for unemployed young persons, was expanded in 1980–81. In 1983, the Youth Training Scheme (YTS) replaced the YOP, aiming to provide an integrated program of on-the-job training and work experience lasting up to a year, designed to give school-leavers practical transferable skills to enable them to compete more effectively in the labor market (OECD 1984). A Community Industry scheme, supported by a government-financed charity, provided temporary jobs for disadvantaged young people for community work. A new employment training program was

[28] Geographical mobility of labor was assisted by housing market reforms. The 1988 Housing Act introduced reforms to increase the availability, diversity and flexibility of housing, particularly in the private rented sector.

[29] Examples include: the Temporary Employment Subsidy Scheme; a Short-time Working Scheme for the textiles, clothing and footwear industries; an extension of the Small Firms Employment Subsidy to include companies with less than 200 employees; the introduction of the Job Release Scheme in 1977, etc., (OECD 1979).

introduced in 1987, subsuming a number of existing measures to help the long-term unemployed. The scheme involved a mix of training, work experience and job search suited to the individuals' needs and abilities. In 1988, a new scheme was introduced to provide twelve-month training places annually, mainly for the long-term adult unemployed, replacing 30 separate programs (OECD 1988).

19. The Temporary Short Time Working Compensation Scheme, introduced in 1979 to replace the Temporary Employment Subsidy Scheme, encouraged employers to adopt short time working instead of redundancies, with subsidies paid at the rate of 50 per cent of normal earnings. A Job Splitting Scheme (1983–86) was implemented to encourage employers to split existing full-time jobs into two part-time jobs and open up more job opportunities for unemployed people, supported by a government grant. The Job Release Scheme introduced in 1977 and extended nation-wide in 1978 encouraged early retirement, making it easier for older workers to release their jobs to unemployed people. It offered a weekly allowance from the date the applicant retired until the state pension age, provided the applicant's employer agreed to replace him or her by an unemployed person.

20. **Fiscal incentive.** As described above, some of the ALMP measures were directly financed by the government, others were led by the private sector but incentivized through various tax and other fiscal measures. The Social Security Act 1986, which came into operation in 1988, aimed at increasing work incentives for people at the lower end of the income scale.

Privatization of British Telecom (BT) and other state enterprises

21. By 1979, nationalized industries represented 10 percent of the economy and 14 percent of capital investment but its productivity lagged behind the private sector. The Conservative Government broadly accepted the idea that state ownership should be the exception rather than the norm. This led to privatization becoming a dominant economic policy of the government, although the manifesto of 1979 did not publicly outline a program of widespread privatization. By 1992, around two-thirds of public industries, employing some 900,000 people, had been privatized.

22. The British Telecommunications Act 1981 enabled the government to license other operators to run telecommunication systems. While the original intention was simply to open up the telecoms market to competition, the need to finance the modernization of BT encouraged talk of privatization due to concerns that such expenditures would bust the government’s budget ceiling.

Privatization was, thus, driven in large part by the need to get BT's investment program off the budget. It was also felt that market constraints would inevitably cut waste and increase profits.

23. Although BT was considered "too big to sell," it had to be sold as a whole because its accounting system was such that it could not be broken up into individual profit centers. The government spent two years working out how to manage such a large sale and conducting a marketing campaign to make the privatization attractive to institutions and overseas investors, as well as mobilizing individual shareholders on a massive scale in a country where only a small number owned shares. The sale occurred gradually to ensure the stock markets could absorb an unprecedented share issue and allow the government to maintain the support of BT's management. To secure investor confidence in the sale, the 1984 Telecommunications Act removed BT's monopoly in running telecommunications and established the Office of Telecommunications (Oftel) as a non-ministerial government department to promote competition in the telecoms industry and protect the rights of consumers. The government adopted a price setting formula (RPI-X) that would maintain price increases at a fixed level below the rate of inflation for a number of years, thereby implying that increased profits could only be generated by reducing waste and inefficiencies. The successful privatization of a huge corporation such as BT cleared the way for a number of other high profile privatizations (Appendix I).

24. **Fiscal incentives.** The privatization of already profitable entities helped raise revenues and thus reduced public-sector borrowing. It also helped the government reduce its spending on subsidies. Although the government wanted to put as high a value on the company as was consistent with a successful sale, the management of the companies (and their merchant banking advisers) sometimes succeeded in talking down the value to ensure maximum upside for their share options. As a result, some of the sales were significantly undervalued. The undervaluation of the shares, however, helped promote share ownership.

25. **Non-fiscal factors.** As a result of the severe economic challenges, a strong political momentum had developed in favor of privatization. Privatization became a campaign issue during the 1983 elections and the Tory manifesto contained a list of the enterprises which it intended to privatize, including BT. Meanwhile, new technologies started reducing the capital investment required for entry into the market, making competition in the telecom sector more feasible. The government authorized a huge marketing campaign in order to inform the public and to create interest in the shares. Trade union leaders were opposed to denationalization, but the government adopted a divide and rule tactic to overcome these concerns by offering BT employees the right to pre-register for a tranche of free shares. Most of the eligible work-force took advantage of this offer. The denationalization of BT became the breakthrough high profile sale that gave momentum to the privatization program.[30] Privatization created millions of new shareholders, including many utility employees and changed popular perceptions of the accessibility of public share ownership.

Deregulation and improving the business climate

26. A large number of controls were abolished since 1979. These include controls on pay, prices and dividends (all abolished in 1979), exchange controls (also in 1979), controls on bank lending (1980), and hire purchase restrictions (1982). Administrative measures curbing bank lending and lending by building societies were removed. The pricing of financial services was liberalized. The abolition of these regulations improved competition. A major revision of industrial, employment and regional policies was also undertaken since mid-1979 with the objective of reducing the role of the state and stimulating the private sector. Statutory barriers to entry were eased in a number of areas, such as financial services, road transport, professional and public services. Road transport deregulation allowed free entry in the market for coach services. Deregulation in the provision of public services was mainly confined to local authorities' services, such as refuse collection, making these markets contestable while retaining the practice of a sole supplier.

27. Privatization was followed by specific regulatory actions to protect consumers from monopoly powers. The 1979 Competition Bill strengthened the powers of the Director General of Fair Trading and the Monopolies and Mergers Commission to deal with practices which restricted competition in all sectors. It gave new powers to the government to refer nationalized industries and other public bodies to the Monopolies and Mergers Commission to investigate the possible abuse of monopoly power and ask the Director General to investigate prices of major public concern. The 1980 Competition Act abolished the Price Commission, gave new powers to the Office of Fair

[30] "Privatization", House of Commons Library, Research Paper 14/61 – citation: Interview with Kenneth Baker, op cit.

Trading to control business practices which restricted competition, investigate nationalized industries and other bodies operating in markets where competition was limited by statute.

28. The government also established economic regulators independent of the government for each of the utility sectors, such as the Office of Telecommunications (Oftel).[31] These agencies ensured competition in the newly privatized markets in order to deliver efficiency, lower prices and better customer service. An important aspect of the regulatory regime was that entry was free but subject to licensing, although the number of licenses was limited by the government in some segments of the market for a given time. Pricing of services of these industries was guided by the RPI-X principle. Accountability and transparency of the regulators were important features.

29. To encourage competition and enterprise the government also put in place a number of schemes to encourage small businesses, including schemes to help unemployed persons start up in business. The government also introduced specific measures to foster self-employment, such as offering tax relief, facilitating bank borrowing for small companies, and establishing local agencies to counsel small businesses on planning, marketing, and design (see below).

Fiscal incentives

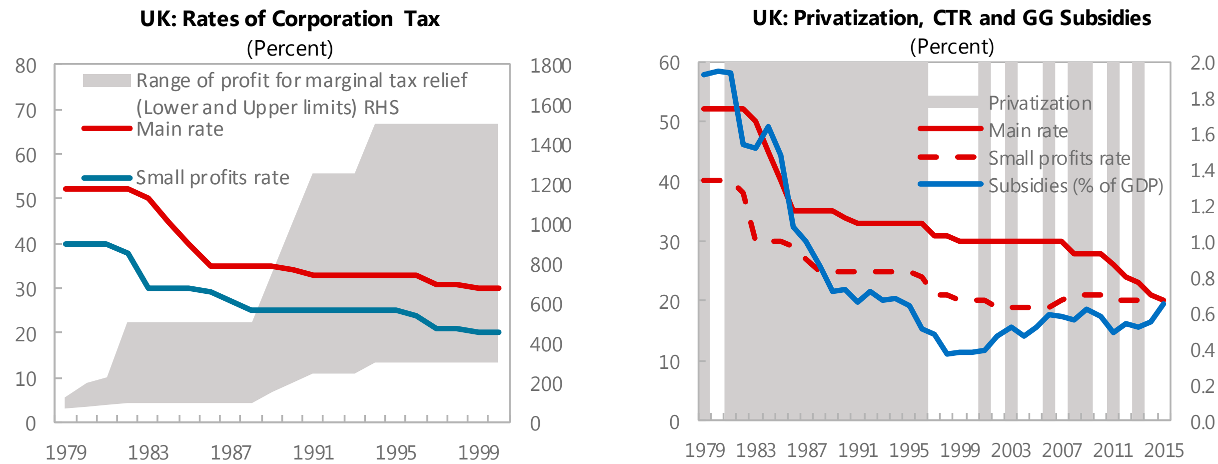
30. Starting in 1980, the government radically changed the system of company taxation to reduce the tax burden on companies and provide greater incentives to business (Figure). There was a major reduction in the main corporate tax rate from 52 to 35 percent during 1983–86. The small companies' tax rate was reduced in one step from 38 to 30 percent in 1984. At the same time range of profit for marginal tax relief was progressively expanded.

31. A number of initiatives were introduced to incentivize businesses. For example, a 1981 Enterprise Package provided tax relief and facilitated bank borrowing for small companies and business startups. Fiscal measures were taken with a view to increasing incentives and fostering enterprises and initiative; these included reductions in marginal rates of taxation, the easing of the corporation tax burden on industrial companies by making more generous industrial building allowances and changes in the stock relief scheme, removal of tax disincentives to mergers and

[31] Other sectoral regulators include: Office of the Gas and Electricity Markets (OFGEM), Office of the Rail Regulator (ORR), International Rail Regulator (IRR), Office of Water Service (OFWAT), Postal Service Commission (PSC).

improvements in capital taxation (increased reliefs, lower rates and wider rollover provisions). Other examples include: the Business Start-up Scheme to increase capital flow to small and medium-sized firms; the Loan Guarantee Scheme, under which the government provided guarantees on 80 per cent of loans by participating banks to firms which had difficulty in financing worthwhile projects; the Venture Capital Scheme providing income tax relief for capital losses; a Business Opportunities Programme to publicize the support and incentives available to small firms, etc. As an experiment to see whether industrial and commercial activity could be fostered by the removal or reduction of fiscal and regulatory burdens, the government established eleven "enterprise zones" in 1980 mainly in the more depressed areas.[32]

Figure 2. Privatization, Corporate Tax Rates, and Government Subsidies



Sources: IMF WEO; Office for National Statistics; and "Privatization", RP 14/61, House of Commons Library, 2014.

B. Reform Phase: 1996–98

32. Economic context. The 1990s marked a period when the economy become more stable with positive growth, falling unemployment, and sound government finances, together with strong fundamentals for medium-term growth and low inflation. To a large extent, the better inflation and unemployment record reflected the economy’s greater flexibility and exposure to market forces and

[32] New and existing firms within these zones were: exempt from development land tax and from general tax rates on industrial and commercial property, permitted 100 per cent capital allowances; provided access to simplified planning and administrative procedures; excluded from the scope of the Industrial Training Boards; and allowed speedier handling of requests for customs warehousing (OECD 1981).

competition as a result of widespread structural reform launched in the 1980s. The slowdown in growth in the mid-1990s reflected a shift to tighter policies due to significant fiscal consolidation during 1993–98 with the goal of reducing the Public Sector Borrowing Requirement.

33. **Political context.** The Labor Party ended its commitment to the public ownership of "the means of production, distribution and exchange" at a special conference in 1995. This meant that the post-1997 Labor Government had no formal ideological objection to privatization, and the policy continued although the volume of privatizations slowed considerably.

Working Time Regulations

34. The Working Time Regulations came in to force on October 1, 1998 with the aim of regulating a number of areas, including health and safety at work, minimum wages, working hours, employee participation, and the hiring of contract labor. The reforms limited the average weekly working time to 48 hours, specified minimum rest periods and in-work breaks and granted a mandatory right to paid annual leave of at least a minimum of 28 days. These measures aimed at helping women keep some ties with the labor market while raising young children, as well as workers traditionally detached from the labor market to be more willing to join the workforce.

35. **Non-fiscal factors**. The reform was a flagship policy of the Labor Party during its 1997 election campaign. It was also the outgrowth of two EU Directives on the protection of young people at work and the organization of working time.

Privatization

36. By the mid-1990s, most of the obvious candidates for privatization had already been privatized, leaving few potential assets left to sell. The enterprises privatized during this period were: British Rail (1994–1997) and, British Energy (1996). BR was privatized in stages between 1994 and 1997, creating 25 operating companies, a new company with responsibility for infrastructure and separate owners of rolling stock. It was a complex privatization as it involved breaking up track, services and trains into separate companies which were then offered for sale as separate franchises. British Energy (BE) was sold with a fixed price offer for all the shares**.** Arrangements were designed to reassure investors that nuclear liabilities could be managed.

37. Fiscal incentives. The July 1997 Budget included a one-off tax on the windfall profits of privatized utilities which was used to finance the cost of the Welfare to Work program. The tax sought to appropriate and distribute more widely the gains from privatization in the form of high levels of profits following privatization. The sale of BE was also helped by the fact the international obligations undertaken by the government meant that it would have to meet the costs of nuclear liabilities if no other party were able to fulfil them.

Modernization of regulation

38. Successive governments developed and refined regulatory policies and principles to guide the preparation of new regulations. For example, the 1999 White Paper "Modernizing Government" required Regulatory Impact Analysis (RIA) for policies which imposed new regulatory burdens, as well as measures to improve transparency, consultation (especially with small businesses), scrutiny, and accountability. The Small Business Service was set up in 2000 to safeguard small business considerations in the regulatory process and bring all government support under one umbrella. This was followed by several new initiatives, including through more effective use of technology, to reduce regulatory and licensing burdens on small businesses. The Regulatory Reform Act (2001) enabled a streamlined approach for the government to put proposals to Parliament to amend or repeal laws to remove or reduce regulatory burdens and anomalies.

39. The results of a review of utility regulation was published in a Green Paper in 1998. It set out proposals to modernize the regulation of water, gas, electricity and telecom utilities, safeguard the interests of consumers, sharpen incentives to innovate and improve efficiency, within a more transparent framework. The 42 proposals included keeping RPI-X as the fundamental basis for price regulation, separating the supply and distribution elements of electricity licenses and replacing electricity and gas regulators with a single energy regulator. It was complemented by the Utilities Act 2000, which set up a framework for regulators starting from first principles. It led to the merger of the gas and electricity regulators into a single energy regulator, the Office of Gas and Electricity Markets (OFGEM).

Appendix I. Privatization Receipts

Company	***Year***	***£ million***
Transportation Sector		
Thomas Cook	1972	23
British Aerospace (BAe)	1981, 1985	389
Associated British Ports	1983, 1984	97
British Airways	1987	850
British Airports Authority (BAA)	1987	1183
Rolls-Royce	1987	1319
Royal Ordnance Factories	1987	189
Rover Group (British Leyland)	1988	150
Railtrack	1996	1700
National Air Traffic Services (NATS)	2001	800
Thomas Cook	1972	23
British Aerospace (BAe)	1981, 1985	389
Energy Sector		
British Petroleum (BP)	1977, 1979, 1981, 1983, 1987	6891
Britoil	1982, 1985	1053
Enterprise Oil	1984	380
British Gas	1986	7731
Regional Electricity Companies	1990, 1991, 1993	11575
National Power/ Power generation (NI)	1991, 1992, 1995	7179
British Coal	1994	955
AEA Technology	1996	228
British Energy	1996	1388
BNFL (Sale of subsidiaries cont. until 2009)	2006	3000
Telecommunications and Postal Sector		
Cable and Wireless	1981, 1983, 1985	1021
British Telecom (BT)	1984, 1991, 1993	14322
Royal Mail	2013	1980
Other		
Amersham International	1982	64
British Steel	1988	2437
Water Authorities	1989	3594
QinetiQ	2003, 2006, 2008	987
UKAEA	2009	50
Tote	2011	90

REFERENCES

Abadie, A., and J. Gardeazabal. 2003. "The economic costs of conflict: a case study of the Basque country." *American Economic Review*, 93 (1), 113–132.

——, A. Diamond, and J. Hainmueller. 2010. "Synthetic control methods for comparative case studies: estimating the effect of California's tobacco control program." *Journal of the American Statistical Association*, 105 (490), 493–505.

Adhikari, B., R. Duval, B. Hu, and P. Loungani. 2016. "Can reform waves turn the tide? Some case studies using the synthetic control method." IMF Working Paper 16/171, International Monetary Fund, Washington, DC.

Billmeier, A., and N. Tommaso. 2013. "Assessing economic liberalization episodes: A synthetic control approach." *The Review of Economics and Statistics*, 95(3): 983–1001.

Blanchflower, D. G., and R. B. Freeman. 1993. "Did the Thatcher Reforms Change British Labour Market Performance?"

Cavallo, E., S. Galiani, I. Noy, and J. Pantano. 2013. "Catastrophic natural disasters and economic growth." *The Review of Economic and Statistics*, 95(5), 1549–1561.

Duval, R., D. Furceri, J. Jalles, and H. Nguyen. 2016, forthcoming. "A new narrative database of product and labor market reforms in advanced economies." IMF Working Paper, International Monetary Fund, Washington, DC.

Eichengreen, Barry. 2007. "The European Economy since 1945: Coordinated Capitalism and Beyond." Princeton: Princeton University Press.

Finland. 1996. Convergence Program for Finland.

Finland. 1998. Finland's Stability Program.

Gathani, S., M. Santini, and D. Stoelinga. 2013. "Innovative techniques to evaluate the impact of private sector development reforms: An application to Rwanda and 11 other countries." Mimeo.

Grönqvist, C., and Kinnunen, H. 2009, "Impact of recession on labor supply: Experiences from the 1990s in Finland," Bank of Finland Online 10/2009, Bank of Finland.

Hancké, R. , and M. Rhodes. 2005. “EMU and Labor Market Institutions in Europe: The Rise and Fall of National Social Pacts,” *Work and Occupations*, 32(2), 196–228.

International Monetary Fund (IMF) (1990), Finland - Recent Economic Developments, SM/90/193. Washington DC.

———. 1993. Finland - Recent Economic Developments, SM/93/158. Washington DC.

———. 1994. Finland – Selected Background Issues and Statistical Appendix, SM/94/218. Washington DC.

———. 1995 Finland - Recent Economic Developments, SM/95/104. Washington DC.

———.1996. Finland – Selected Background Issues and Statistical Appendix, SM/96/95. Washington DC.

———.1997. Finland – Selected Background Issues and Statistical Appendix, SM/97/60. Washington DC.

———.1999. Finland – Selected Issues, SM/99/122. Washington DC.

———.1999, Finland – Staff Report for the 1999 Article IV Consultation, SM/99/121. Washington DC.

———.2004, Advancing Structural Reforms, World Economic Outlook, April 2004, Washington DC.

———. 2015. Fiscal Policy and Long-Term Growth, Washington DC.

Organization for Economic Co-operation and Development (OECD). 1979 - 2008. Economic Surveys of the United Kingdom. Paris.

———.1983 - 2008. Economic Surveys of the Netherlands. Paris.

———.1990 - 2004. Economic Surveys of Finland, Paris.

———.1992 - 2006. Economic Survey of Germany. Paris.

———.1998. Reforming Public Enterprises – Case Studies: The Netherlands.

———.1999. Regulatory Reform in the Netherlands. Paris.

———.2004. “Regulatory Reforms in Germany: Telecommunications.” Paris.

———.2007. Sickness and Disability Schemes in the Netherlands. Paris.

———.2009. The Political Economy of Reform: Lessons from Pensions, Product Markets and Labour Markets in Ten Countries. Paris.

———.2013a."A Study on R&D Tax Incentives Annex: Good practice cases", TAXUD/2013/DE/315 FWC No. TAXUD/2010/CC/104

———.2013b. Employment Outlook. Paris.

Rhodes, Chris, David Hough, and Louise Butcher. November 20, 2014. "Privatization." House of Commons Library, Research Paper 14/61.

Salo, Sinikka. 2006. "Finland – From A Crisis to A Successful Member of the EU and EMU." Bank of Finland.

Salverda, W., Maarten Van Klaveren and Marc Van Der Meer. 2008. "Low-Wage Work in the Netherlands." Russel Sage Foundation.

UK Institute for Government. 1984. "The Privatization of British Telecom"

Van Ours, Jan. 2010. "Do We Need Crisis-Specific Labor Market Policies? Lessons from Dutch Miracle - Part II," CESifo Forum, Ifo Institute - Leibniz Institute for Economic Research at the University of Munich, vol. 11(1), pages 29–36, 04.

Vegh, C., and G. Vuletin. 2015. "How is tax policy conducted over the business cycle?" *American Economic Journal: Economic Policy, American Economic Association,* 7(3), 327–70.

Visser, Jelle, and Anton Hemerijck (1997), "A Dutch Miracle": Job Growth, Welfare Reform and Corporatism in the Netherlands". Amsterdam: Amsterdam University Press.