How Federalism Influences Welfare Spending: Belgium Federalism Reform Through the Perspective of the Synthetic Control Method

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Abstract

The question of whether and how federalism influences a country's welfare state has been a longstanding concern of political scientists. However, no agreement exists on exactly how, and under what conditions, federal structures impact the welfare state. This article examines this controversy. It concludes theoretically that the specific constellation of federal structures and distribution of powers need to be considered when theorising the effects of federalism on the welfare state. Using the case of Belgium and applying the synthetic control method, it is shown in the article that without the federalism reform of 1993, the country would have had further decreases in social spending rather than a consolidation of this spending in the years after 1993. In the case of Belgium, the combination of increased subnational spending autonomy in a still national financing system provided ideal conditions for a positive federalism effect on social spending to occur.

Introduction

According to Paul Pearson (1995: 472), "federalism matters tremendously for the development of social policy." Although extensive research has been done based on this assumption, no agreement exists on exactly how, and under what conditions, federalist structures impact the welfare state (Castles 1999; Castles and Uhr 2007; Hayek 1976; Hicks and Swank 1992; Hicks and Misra 1993; Huber et al. 1993: 720–722; Obinger et al. 2005; Mainwaring and Samuels 2004; Rodden and Eskeland 2003: 458f.; Wilensky 1975). This lack of agreement is most clearly true regarding the "new politics" of the "silver age" in welfare state policy (Pierson 1996), which has been characterized by welfare state restructuring and retrenchment rather than by further development.

We argue that the main reason for these ambiguities is twofold. First, the relationship between federalist structures and welfare states is theoretically complex, multiple (Obinger et al. 2005: 40), and possibly highly contextually dependent. In other words, we should carefully consider the various dimensions and constellations of federalist structures with respect to the formulation of our hypotheses. Second, and related to the first point, in comparative empirical studies, it is typically very challenging to capture the actual *causal* effect of federalism. Since federal structures are highly stable over time, it is difficult to grasp the effects of federalism even when using a comparative perspective that includes changes over time. Researchers investigating the effects of federalism largely have been restricted to purely cross-sectional or pooled time-series cross-sectional approaches, which suffer from well-known shortcomings regarding causal inference (Hicks and Swank 1992; Huber et al. 1993; Hicks and Misra 1993; Castles 1999; Cameron 1978).

This is the starting point of the present study, which aims at adding to this controversy using an innovative methodological approach—the Synthetic Control Method (Abadie and Gardeazabal 2003; Abadie et al. 2010, 2015). This research design uses the strengths of a case

study design, namely that one particular case is studied in detail in its specific context, which enables us to be very specific about federalist structures, their constellation, and potential effects. At the same time, the Synthetic Control Method allows us to go beyond a particular case by creating an artificial "twin case," i.e., a counterfactual, and thus to make inferences regarding the effects of federalism on welfare spending.

This novel method is applied to one of the rare cases in which a substantial change in the federalist structure within one country actually could be observed. More precisely, we analyze the effect of the Belgian federalization of 1993, during which Belgium moved from a former unitary state to a federal state, and thereby largely increased subnational spending competences (Deschouwer 2012: 60f.). In the Belgian institutional order, the year 1993 constitutes a major break that offers ideal opportunities for investigating the causal effect of this reform on welfare state development. In the logic of a natural experiment (Dupuy and Van Ingelgom 2014: 198), the introduction of a federalist state structure is considered to be an institutional treatment that can be expected to causally influence welfare state development. *Hence, and more precisely, the present study asks whether the Belgian institutional reform of 1993, which imposed a federalist state structure, has influenced the subsequent welfare state spending of the country*.

It must of course be mentioned that the reform in 1993 did not come out of the blue, but rather was the result of earlier political developments and processes actually leading towards a federalization of the country. While several researchers have maintained that political elites to a certain extent already behaved in a federal way before 1993 (Svenden and Jans 2006; Reuchamps and Onclin 2009), we argue, based on institutional reasoning (Hall and Taylor 1996), that only the institutional change of 1993 enabled actors to really act federally by bringing their preferences and the institutional context into accordance.

In the present study, we conceptualize the *welfare state* using a disaggregated expenditure approach (Castles 2008), i.e., we focus on welfare state spending. Such a spending perspective fits most closely the theoretical arguments regarding the potential effect of federalism, which typically address the consequences of federalist structures on spending, taxing, and thus the *size* of the welfare state (Huber et al. 1993; Hicks and Swank 1992; Hicks and Misra 1993; Obinger et al. 2005; Rodden and Eskeland 2003), rather than its quality or generosity (see for instance Scruggs 2007).[1] More precisely, we focus on public and mandatory private social expenditure as a percentage of GDP in important social policy areas, including cash benefits and benefits in kind (i.e., spending on old age, survivors, incapacity-related benefits, health, family, active labour market programs, unemployment, housing, and other social policy areas). In contrast, we exclude the expenditure on education (and look at this spending category separately as a control case), since competences in this field shifted largely to the regions in the 1988 state reform (De Rynck and Dezeure 2006).

The contribution of the present study goes beyond existing research in at least three respects. First and substantially, our analyses provide *new theoretical and empirical insights* into a quite unique case with respect to the fundamental changes that have evolved over time in the unitary/federal state structures of Belgium, that may however also be relevant beyond the case under consideration. Second, the particular case and the novel methodological approach enables us to research the relationship between federalism and welfare state spending over time and in a specific cross-sectional perspective. Comparing Belgium with its artificial counterfactual eventually brings us *closer to causal inference* than any of the existing research in this field. Third, to our knowledge, the *Synthetic Control Method* has never been applied to welfare state research. Therefore, the present study also provides more general information on whether this methodological approach may be a helpful tool in a research field

[1] In the following, we use welfare state spending, social spending, the size of the welfare state, and public investments in the welfare state interchangeably.

that is particularly affected by problems of potential reversed causality and endogeneity (Kumlin and Stadelmann-Steffen 2014: 9).

Our study is structured as follows. The next section examines the creation and development of Belgium as a federal state, with a focus on the fourth state reform of 1993. The following section discusses the theoretical background explaining how federalism influences welfare state expenditures, which enables us to deduce expectations for the case of Belgium. Subsequently, the research design and, in particular, the applied method are discussed before presenting the empirical results. In the next section, after the presentation of the results, we discuss the findings more in-depth, particularly by focusing on the underlying mechanisms. The study concludes with a summary of the main findings and their implications.

Federalization in Belgium

Societal, cultural, and political life in Belgium is strongly structured along the linguistic borders between Dutch-speaking Flanders in the North and the French-speaking Walloon region in the South of the country. The internal conflict between language regions has characterized recent Belgium history, and is considered the main reason for the country's development from a unitary to a federalist state (Popelier and Cantillon 2013: 628–629). In the second half of the 19th century, the "Flemish Movement" (*Vlaamse Beweging)* initially called for the recognition of bilingualism in unitary, francophone Belgium. Then, in the early 1960s, the claim for more regional autonomy was taken up by the Walloon south of the country, which was confronted by economic problems (Berge and Grasse 2004: 82; Maarten

and Tombeur 2000: 143). According to Popelier and Cantillon (2013: 629), this "lack of social, economic, and linguistic homogeneity was the impetus for the federalization process."[2]

In 1970, the first of four state reforms was established. The crucial element of the constitutional reform of 1970 was the creation of three language-based communities (Dutch, French, and German) as well as three regions (Wallonia, Flanders, and Brussels) (Swenden et al. 2006: 865; Swenden and Jans 2006: 884f.). This reform led to a very complex state structure with overlapping units that still exists today (Swenden 2002: 68f.). While the following second and third state reforms broadened subnational autonomy, Belgium became a federalist state only after the fourth constitutional reform of 1993 (Wasmeier 2009: 169; Deschouwer 2012: 43; Woyke 2009: 452).

This institutional change of the 1993 reform is reflected in Article 1 of the Constitution that asserts that Belgium is a federalist state composed of communities and regions. Accordingly, one important institutional element of the reform has been the representation of the subnational communities in the second parliamentary chamber, the Senate, which however, at the same time, underwent a reduction of its competencies. In the context of the present study, two aspects of the federalism reform deserve particular attention:

1) *Substantial expansion of subnational spending autonomy*: In 1993, the subnational entities received further decision-making powers in several areas. In particular, the communities' competencies with respect to social policy need to be mentioned, meaning that the Flemish-, French-, and German-speaking communities now possessed exclusive autonomy for health and family policy and other welfare state domains (Deschouwer 2012: 60f.; Dupuy and Van Ingelgom 2014: 204f.; Cantillon et

[2] In contrast, a partition of Belgium has not been considered for mainly two reasons. First, Wallonia, due to its economic misery, is highly dependent on transfer payments from the Belgian state. Second, Brussels belongs to both linguistic communities, and neither wanted to give up the capital city (Keating 1999: 81; Popelier and Cantillon 2013: 630–631).

al. 2006: 1035). By contrast, the social security system remained largely at the federal level (Baudewyns and Dandoy 2005; Cantillon et al. 2006: 1036).

2) *A still centralized tax system*: The decentralization of competencies (spending) was not reflected by similar adaptations of the tax system, which remained national. Thus, after the reform of 1993, the subnational units in Belgium still remained largely dependent on the tax revenues of the central state (Deschouwer 2000: 110).[3]

As this section has illustrated, the federalism reform of 1993 did not come out of the blue; rather, it was the result of long-lasting processes and tendencies towards federalization that already had their origins in the 1960s. However, with respect to our research question, it can be argued that the 1993 reform marked a turning point. The reform not only eventually changed the institutional structure of the country, but also particularly affected the allocation of competences in the welfare state area.

Theoretical Background: How Federalism Influences Welfare State Expenditure

The question of whether and how federalism influences the characteristics of a country's welfare state has been a long-standing concern of political scientists. While most studies follow an institutional approach (Hall and Taylor 1996), two groups of literature can be distinguished that—using different theoretical arguments—support how federalism either limits or promotes welfare state expenditures. We discuss these perspectives in the following paragraphs by taking into account that the effect that federalism exerts on welfare state policy can be context and time dependent (Obinger et al. 2005: 44). In this vein, we also consider the

[3] Not until 2002 did the subnational tax autonomy increase to a certain extent (Deschouwer and Verdonck 2003), and only became one of the crucial elements of the most recent sixth state reform (Goossens and Cannoot 2015).

difference between a potential federalism effect on the level of, as well as changes in, welfare state spending. In particular, the latter enables a distinction between the "old" and "new politics" of the welfare state (Pierson 1996).

First perspective: Federalism leads to lower welfare expenditures

The most prominent view asserts that federalism exerts a negative influence on welfare state spending. According to the Public Choice literature, federalist structures lead to competition between constituent units, which in turn limits public spending in general and investments in the welfare state in particular (Hayek 1976; Obinger et al. 2005; Wilensky 1975). Moreover, Tsebelis' (2000) veto player theory leads to the same conclusion, although it is based on a different argument. According to Tsebelis (2000), the more veto players in a political system, the larger is their ideological distance and the higher their internal coherence, which makes changing legislation more difficult. By sharing power between political actors, federalism is one such veto point, and thus also limits welfare state spending (Obinger et al. 2005: 36). Empirically, this assumed negative relationship between federalism and the size of the welfare state has found support in various macro-quantitative (Huber et al. 1993; Hicks and Swank 1992; Hicks and Misra 1993) and macro-qualitative (Kittel et al. 2002) studies.

The "new politics" literature emphasizes that in recent decades, the main question has been how to retrench or restructure the welfare state, rather than further increasing public investments in this field. According to Pierson's (1996) famous argument, this process of retrenchment is thereby much more difficult and follows a different logic. In this context, the argument has been made that federalist state structures facilitate retrenchment, since political accountability is distributed among different levels of government (Obinger et al. 2005: 39). This wider distribution of accountability makes decision-making entangled and less transparent for citizens, and therefore provides central governments with opportunities to apply a strategy of blame avoidance (Weaver 1986).

Second perspective: Federalism leads to higher welfare expenditures

The second view argues that the specificities and the institutional context of federalist arrangements need to be considered. Although in political discourse *federalism* and *decentralization* often are used synonymously, from a political science perspective, it makes sense to differentiate between the two concepts (Lijphart 1999). While *federalism* refers to the integration of subnational units into the decision-making process at the central level (i.e., the "right to decide"), *decentralization* focuses on subnational competencies in the area of policy implementation (i.e., the "right to act") (Braun 2000: 29; Ehlert et al. 2007: 244). When systematically analyzing the effects of federalist structures on welfare spending, the dimension of decentralization should be taken into account as well. In this vein, Rodden and Eskeland's (2003) contribution on *fiscal decentralization*, i.e., the capacity of subnational units to generate their own tax revenues, is enlightening. According to their crucial argument, federalism does not always hamper state activities; rather, a potential obstruction depends on the particular constellation of federalism and the subnational units' tax autonomy. In federalist states in which subnational units have tax autonomy, fiscal competition between these units prevails, which, from an economic point of view, leads to financial self-responsibility and eventually to less state intervention at the subnational level (Rodden and Eskeland 2003: 457f.; vgl. also Ehlert et al. 2007: 247; Besley and Case 1995; Tiebout 1956: 418f.). In contrast, in federal states that do not have a decentralized tax system, the competitive situation does not occur. Conversely, subnational units can spend money within their areas of competence without considering the revenue side, i.e., how these policies are financed (Rodden and Eskeland 2003: 457f.). Hence, the specific combination of strong federalism (i.e., high subnational autonomy in political decision-making) and rather low subnational fiscal autonomy (i.e., funding through transfers from the central level) increases spending behaviour at the subnational level (Rodden and Eskeland 2003: 458).

Some researchers of the "new politics of the welfare state" literature support the idea of a positive relationship between federalism and welfare spending. More precisely, in the context of welfare state retrenchment, federalist structures impede welfare state cutbacks and restructuring. Referring to Tsebelis' (2000) veto player approach, these researchers emphasize that the "ratchet effect" of federalism (Castles and Uhr 2007; Obinger et al. 2005) hampers policy change in both directions: whereas in the golden age of the welfare state, federalism impeded the development of generous welfare services; in the silver age, the same institution has limited retrenchment. Hence, in recent decades, federalist countries should have exhibited less welfare state retrenchment than unitary states.

The case of Belgium: Theoretical expectations

How can the theoretical accounts regarding the role of federalism on welfare spending now be applied to the case of Belgium? We argue that for the Belgium case, the expectation of a positive federalism effect on welfare spending seems more reasonable than assuming a negative impact. In fact, the Belgium situation after the 1993 reform corresponds exactly to the situation described by Rodden and Eskeland (2003) when referring to a fostering federalism effect. After the 1993 reform, social policy has been characterized by shared and thus increasingly fragmentized powers between the federal state, regions, and communities (Cantillon et al. 2006: 1036). The only social policy area that remained entirely national is the social security system (ibid.); thus, basic social programs like health care insurance, unemployment insurance, and the pension system are provided by and financed at the national level. However, at the same time, the increased subnational spending autonomy enabled the regions to create their own social programs, which did not replace but rather supplemented existing policies at the central level (Beyers and Bursens 2010; Cantillon et al. 2006: 1036).

Thus, while the reform of 1993 transferred quite considerable autonomy to communities—most importantly spending autonomy—revenue autonomy remained largely limited due to the continuation of the centrally organized tax system (Deschouwer 2012: 60f.; 2000: 110). The communities finance their welfare state expenditures through centrally levied taxes, and they do not have any tax- or finance-related competition. This constellation provides incentives for subnational entities to spend on social policy and to use these programs as a source of subnational legitimation and identity building (Dupuy and Van Ingelgom 2014). Moreover, the incoherent division of power (De Rynck and Dezeure 2006: 1028) also more generally provides negative cost saving incentives. In this context, the monitoring of the willingness of unemployed persons to work can be mentioned (Cantillon et al. 2006: 1050). While monitoring is a regional competence, the financial consequences of non-work are felt primarily at the federal level. Overall, it has been argued that the particular distribution of competences the areas of social policy has led to cost increases (Cantillon 2005).

Previous research has suggested that increasing expenditures have been fuelled by divergent Flemish and Walloon views about how to organize the social security system and the tax system. Flanders has been claiming further subnational autonomy in these areas, given that in recent decades, a substantial redistribution has occurred from the Flemish to the Walloon part of the country (Cantillon et al. 2006). By contrast, Wallonia sees the social security and taxing system as important elements holding the country together and does not support further federalization in these areas (Béland and Lecours 2008: 268). In this case, the more institutional effects of federalism reform come into play: the veto point of the francophone part of the country—which to a certain extent already existed before 1993 due to the consociational practices of the federal government (De Rynck and Dezeure 2006: 1031)—was strengthened after the fourth state reform as communities were given a veto point regarding the federal architecture of the state (Träger 2009: 58). This constellation has helped

to impede further federalization of social policy and taxation in Belgium, and thus a possibly more stringent allocation of powers (De Rynck and Dezeure 2006: 1031). Moreover, in this context, we can make reference to the "new politics of the welfare state" (Pierson 1996). Since the federalist reform of 1993 occurred in the period called the "silver age" of welfare states, we would expect that the constellation of increased subnational spending autonomy with a still-national financing system and the French Community's veto power may have impeded the retrenchment and restructuring of welfare state spending.

Therefore, following both Rodden and Eskeland (2003) and the "silver age" argument, we expect *that the reform of 1993 increased rather than decreased welfare state spending in Belgium.*

Research Design

This section describes how we empirically test the effect of federalization on Belgium welfare state spending. Quantitative comparative welfare state research typically relies on regression-based methods to test the influence of some explanatory factors on welfare state spending (see, for example, Boix 1997; Korpi and Palme 2003; Busemeyer 2007). However, while this approach is generally problematic with regards to causal inference, it is even less reliable in the context of our research interests, which focuses on one particular event—the Belgian federalization of 1993 and its effects. Therefore, in the present study, we propose using the Synthetic Control Method (SCM), which, to our knowledge, has not been applied in comparative welfare research, although it seems an excellent choice for investigating our case of interest. The SCM offers a combination of qualitative and quantitative approaches by focusing on one particular event, while at the same time enabling a quantification of the causal effects.

The SCM method was developed by Abadie and Gardeazabal (2003) and Abadie et al. (2010, 2015) with a primary aim to estimate the causal effects of a "treatment" (e.g., historic events, political programs, etc.) on a specific outcome.[4] The crucial idea is that for the case under investigation ("treated unit"), a "synthetic treated unit" is created based on a pool of potential comparison units ("donor pool") (Abadie et al. 2015: 497). Most importantly, these cases should exhibit similar characteristics regarding the crucial explanatory factors like the case under investigation before the treatment. In other words, we try to match as closely as possible a series of pre-intervention characteristics of the treated unit, i.e., Belgium, with the same variables for the units in the donor pool (ibid. 497). These pre-intervention characteristics—which include the pre-intervention values of the outcome variable and other determinants of the outcome—are used to minimize the difference in the outcome variable between the real and the synthetic case ("mean squared prediction error" [MSPE]) before the treatment (Abadie et al. 2011: 3f.). If we are able to create a synthetic case—based on these pre-intervention characteristics—by which we can predict similar trajectories of the outcome variables over an extended period of time prior to the intervention, a discrepancy in the outcome variable *after* the treatment can be interpreted as being produced by the treatment itself (Abadie et al. 2015: 498).

This approach can be applied easily to Belgium and its federalization. By constructing a synthetic Belgium, we can estimate the causal effect of the treatment, namely the reform of 1993, on the outcome, which is social spending. If the welfare state expenditure of the real and synthetic Belgium after 1993 diverge systematically, we would conclude that a federalism effect on the size of the welfare state exists. However, if both cases develop in the same vein

[4] A detailed description of the model can be found in Abadie et al. (2010: 494–497) and Abadie et al. (2015: 497–500). The estimations presented in the present study have been done using R (package *synth*) (Abadie et al. 2011).

after the reform, we would suggest that federalization did not have an effect on Belgium welfare state spending.

The time period under investigation comprised the years 1980 to 2009, which enables the present study, on the one hand, to access enough observations before and after 1993 to estimate a synthetic case in the pre-reform period; and, on the other hand, to analyze the long-term development of welfare spending after the reform.[5]

With respect to the selection of countries for the donor pool, two points are important. First, the crucial criterion was that these countries did not at any time between 1980 and 2010 have a federalist state structure. Second, to increase the probability that a synthetic case can be constructed, countries in the donor pool should be rather similar to our case of interest with respect to other potential determinants of welfare state spending (Abadie et al. 2015: 500). Combining these two criteria, we focus on OECD countries and chose those cases that did not have, and never did have, a federalist state structure. The selection of non-federal countries for the donor pool is based on the index by Huber et al. (2004) that rates states as "not a federal state," "a weak federal state," or "a strong federal state." The following OECD countries belong to the first category for the whole period under investigation, and therefore were used for the donor pool: Denmark, Finland, France, Greece, Ireland, Italy, Japan, Netherlands, Norway, Sweden and Great Britain (Armingeon et al. 2014).[6] Belgium was classified as a non-federal state until 1992, and since 1993, it has been rated as a "strong federal state." Again, this rating difference reflects the high relevance and profoundness of this reform, and its suitability for the present analysis. The data for Belgium and the other 11 OECD countries used in the present study were from Armingeon et al. (2014) and the World Bank (2015).

[5] Note that the OECD database has been providing social expenditure data, including benefits in kind, only since 1980. Other models based on a different measurement that only covers cash benefits, which have been available since 1970, provide very similar results (see also the section "Empirical Results").
[6] The following countries have been excluded due to missing values in the outcome variable: Iceland, Luxembourg, New Zealand, and Portugal. On the other hand, missing data for the explanatory factors can be handled with the SCM, and, therefore, are not a reason to exclude countries.

To measure the outcome variable, we use a disaggregated expenditure approach (Castles 2008), i.e., total public and mandatory private social expenditure as a percentage of GDP in important social policy areas. More specifically, and as previously discussed, we concentrate on social spending on old age, survivors, incapacity-related benefits, health, family, active labour market programs, unemployment, housing, and other social policy areas, including both cash benefits and benefits in kind (Armingeon et al. 2014; OECD 2016). Moreover, as a control case, we analyze educational expenditure, i.e., a welfare state area that differs from social expenditure not only regarding the timing of the most important state reform (1988 instead of 1993), but also regarding the constellation of federalist competencies. Hence, we expect that in education spending, we should observe a) no substantial effect of the year 1993 and b) no fostering federalism effect.

To create the synthetic case, i.e., to mathematically optimize the prediction of the pre-reform trajectory based on the donor pools, we included not only the pre-reform outcome, but also further potential determinants of welfare state spending in the analysis. In choosing these variables, we followed previous research (see Schmidt 2000; Hicks and Misra 1993; Hicks and Swank 1992; Huber et al. 1993) that found that welfare state spending correlated with the strength of leftist parties, union density, GDP per capita, the age structure in a country, and the unemployment rate. Moreover, we integrated the strength of right-wing parties to account for the rise of the right wing radical Vlaams Blok (now Vlaams Belang) shortly before the 1993 federalism reform. By matching Belgium and its synthetic case—based not only on pre-reform outcomes, but also on observed determinants of the outcome—we aim to decrease the difference of the trajectories between real and synthetic Belgium before the reform.[7] A more

[7] Note that our SCM focuses on the national level. Hence, we try to analyze the effect of the federalism reform on the national trajectory in welfare state spending. This also means that at this stage, we cannot account for varying regional determinants of welfare state spending. However, we will come back to question of regional differences later in this article.

detailed description of the variables and their operationalization can be found in the Appendix.

Empirical Results

As Figure 1 illustrates, welfare spending as a percentage of GDP in Belgium always has exceeded the mean spending of the other OECD countries. Between 1980 and 1992, the share was on average 4.2 percentage points higher than other non-federal countries. After the reform, this difference decreased to 2.6 percentage points higher on average. Thus, this purely descriptive perspective leads to the conclusion that the development from a unitary to a federalist country was associated with slightly less welfare spending. However, this conclusion is based on weak grounds, since potential contextual factors that are exogenous to the federalization, and in particular the overall trend to welfare state retrenchment and restructuring (Pierson 1996), have not been considered. For this reason, we proceed with the SCM, which is able to actually account for these factors.

--- Figure 1 about here ---

Tables A.2. and A.3. in the Appendix present the weighting of the OECD countries, i.e., their welfare spending trajectories, used to create synthetic Belgium. Three cases of the donor pool are relevant to the synthetic case—Ireland, the Netherlands, and Sweden. With respect to other pre-reform characteristics, the GDP and the strength of left parties most strongly contributed to the creation of synthetic Belgium. By contrast, the strength of right parties, which we integrated into our model to account for the sudden success of the right wing radical Vlaams Blok (now Vlaams Belang) in the November 1991 elections, was not relevant to the prediction of welfare spending in Belgium until the reform.

Figure 2 presents the main results of our analysis. Between 1980 and 1992, Belgium and its synthetic twin exhibit almost identical welfare spending (Belgium: 25.4% of GDP, synthetic Belgium: 25.3% of GDP), while the value for the whole sample is significantly different at 21.2% of GDP. If the annual values of Belgium and synthetic Belgium are compared, they show that between 1980 and 1992, the difference is always less than 1 percentage point. Hence, based on the mathematical optimization, an almost identical twin was created that behaved very similar to the real Belgium before the 1993 reform. However, after the reform, the real and synthetic Belgium vary in one crucial aspect—the real Belgium, once a unitary state, is now a federal state. Thus, by looking at the development of social spending after 1993, we can compare federal Belgium with the synthetic case, i.e., under the condition that Belgium had not changed its political system. Figure 2 depicts these two developments. We can see from this graph that indeed the reform seems to have had an effect on the size of the welfare state: as mentioned previously, the social spending of the real and synthetic Belgium went hand in hand before the reform, but after 1993, the two curves diverge. Synthetic Belgium continues the decreasing trend in social spending, whereas, in contrast, real Belgium exhibits stagnation, but no longer continues the decrease in welfare spending after its reform to become a federal state. Two years after the reform of 1993, real Belgium showed a 1.4 percentage point of higher social spending compared to its synthetic counterpart. In 2000, this difference increased to about 4.4 percentage points; in 2008, the difference reached its maximum of 4.9 percentage points. Hence, we can conclude that the reform to a federalist country has increased, rather than decreased, social expenditures. Put differently, if Belgium had not introduced federalism in 1993, it would have had a further decrease, rather than a consolidation, of social spending in the years after, and eventually a lower level of welfare spending.

--- Figure 2 about here ---

To test validity of the SCM, we used education expenditure as our control case. As discussed previously, in this area we did not expect the 1993 reform to have had a positive impact on the development of spending. On the one hand, education already was federalized in 1988, and on the other hand, in this area, we do not find a similar constellation of shared powers generating incentives for expansion. Further analyses presented in the Appendix (Figure A.4) demonstrate that real and synthetic Belgium do not systematically vary after the reform of 1993, nor did the 1988 federal reform lead to a significant changing pattern in education expenditure. This result supports the conclusion that the increases in social spending is not just a general expenditure pattern apparent in various welfare state related spending areas, but rather that the institutional change to a federal country *in combination with a policy-specific constellation of competencies* led to a relative increase in social spending.

Abadie et al. (2015: 504–508) have proposed a series of further placebo and robustness tests to validate SCM findings. One possibility for a placebo test is to change the treatment units (Abadie et al. 2015: 505). If, for the same event year, a similar effect also was observed for other or even numerous countries in the donor pool, we would conclude that the finding for Belgium is just a placebo effect. To exclude this possibility, a synthetic case is created for every other country from the donor pool, based on which MSPE ("mean square prediction error") before and after 1993 is calculated. A value of 1 means that the differences in outcome between a particular case and its synthetic twin are the same before and after the treatment. A larger number indicates that the year 1993 had a strong impact on social spending, since the differences between the real and the synthetic case are systematically higher after the treatment than before. As Figure 3 demonstrates, the ratio of the MSPE after and before 1993

for Belgium is by far the highest (57.8). For Denmark, the Netherlands, and Ireland, the numbers are 35.6, 22, and 13.8, respectively. Although this result implies that for these countries the periods before and after 1993 also differ to a certain extent, the value is obviously much smaller than for Belgium. The clear positive reform effect of 1993 for Belgium is thus corroborated by this placebo test.

Another placebo proposed by Abadie et al. (2015: 504f.) is to shift the event year, i.e., in this case, the reform year. For the placebo test, we shifted the treatment to 1980, when the second state reform in Belgium occurred. For this purpose, we relied on a slightly narrower measurement of social expenditures including only cash benefits, which—in contrast to our dependent variable—were available for a longer period of time, i.e., since 1970 (Armingeon et al. 2014).[8] Figure A.5 in the Appendix illustrates the results of an SCM for which the treatment has been moved to 1980, thus creating a synthetic case for the period before 1980 (Abadie et al. 2011: 14). Even though the developments of social expenditures for the real and synthetic Belgium already drift apart starting in the mid-1980s, the negative effect of the federalization of 1993 is confirmed. In fact, the difference between the two cases not only is quite small during the 1980s (a maximum of 1.9%), but also synthetic Belgium exhibits even higher social expenditures during this time. In contrast, after 1993, we can again observe the same pattern as in our original analysis—the synthetic case substantially decreases its social spending. Again, this supports the view that what we measured in our SCM for Belgium is indeed the effect of the federalization of 1993, whereas a placebo effect is very unlikely.

--- Figure 3 about here ---

[8] The two variables highly correlate with a Pearson's r of 0.83.

Last, the results of the SCM can be considered robust if the finding is not strongly contingent on single cases of the donor pool. Using the "leave-one-out-method" (Abadie et al. 2015: 506) we repeated the SCM three times, each time excluding one of the three countries that contributed to the construction of synthetic Belgium. The exclusion of none of the three countries changed the results considerably. If Ireland is excluded from the donor pool, the method yields a slightly larger effect; if the SCM is done without Sweden, the effect is slightly smaller. The results are most affected if the Netherlands is excluded from the synthetic case. Hence, the successful implementation of the SCM as well as our findings are to some extent dependent on the inclusion of the Netherlands into the donor pool. We conclude that this contingency with respect to the case of Netherlands does not change our initial conclusion that the federalization of 1993 in Belgium had a positive effect on welfare spending. First, the other two countries of the OECD sample (Ireland and Sweden) still contribute more than a third to the construction of synthetic Belgium, so the Netherlands is not the sole determining factor. Second, it becomes clear from Figure A.6 that the prediction of Belgium welfare state expenditures already *before* 1993 fails if the Dutch information is not included. Hence, this finding supports our argument that an event in 1993 caused these two countries to move apart from each other with respect to expenditures. Third, and most importantly, from the placebo tests it became clear that this event occurred in Belgium rather than in the Netherlands. In other words, the reform year of 1993 did not have a similar impact on the level of social spending in any other country in the donor pool. While it is true that we can observe considerable differences in Dutch social spending before and after 1993, the MSPE values show that the "effect" of 1993 is almost three times smaller than that for Belgium. Therefore, we conclude that the main part of the Belgium reform effect was not caused by changes within the countries of the donor pool.

Discussion: What Is Driving the Federalism Effect?

Our analyses so far have shown that 1993 was a turning point in Belgium welfare state spending, which can be traced back to the institutional changes that occurred at that time. Hence, we can confirm our initial expectation that the Belgium case supports the second theoretical perspective that suggests that federalism is causally related to *higher* welfare state spending. However, the statistical findings presented so far do not tell us much about what actually is driving this federalism effect. In the theoretical section of the present study, we argued that the Belgium constellation of competencies has generated incentives for subnational governments to increase subnational social expenditures. In the following discussion, we want to substantiate this assumed mechanism by examining three crucial aspects in more detail: (1) If the relative increase in welfare state spending is indeed caused by the specific constellation of competencies as argued above, we should observe an increase in *subnational* (but not necessarily national) social expenditures after the reform; (2) The question arises as to whether Flanders and Wallonia reacted to the new institutional conditions in a similar vein, i.e., whether in the subnational units, we find evidence that the new institutional setting was used to increase regional investments in social policy; and (3) A closer look at the sudden success of the right-wing radical Vlaams Blok in the 1991 elections is important so to exclude the possibility that it was actually the change in the political power constellation rather than the institutional change that caused the relative increase in welfare spending.

(1) Regarding the first aspect, it needs to be mentioned that subnational social spending data is not available over the whole period under investigation and also not available for single subnational units. However, the available data (See Figure A.7 in the Appendix) suggests that indeed subnational social expenditures have increased since the 1993 reform. Whereas in 1995 the federal government provided higher social expenditures than the

communities and regions, the latter have caught up since then. Hence, this finding supports our theoretical argument that the difference between the real and synthetic Belgium after the reform is due to increases at the subnational level.

(2) Moreover, and regarding the second aspect, it can be shown that the Flemish community, in particular, has made use of the institutional opportunities. The Flemish strategy has led to new subnational social policy programs in the areas of health care, tax relief, and child allowances, which, however, do not replace but rather supplement existing policies at the central level (Beyers and Bursens 2010). One of the most prominent examples is the Flemish care insurance system (Vlaamse zorgverzekering, VZ), which was enacted in 1999 and has been effective since 2011. Within Flanders, this program provides non-medical services mainly targeted at elderly people. At the same time, at the federal level, the existing social assistance benefits for care for the elderly also have been increased (Cantillon et al. 2006: 1036, 1051). Hence, the Flemish VZ has largely contributed to social policy divergence between Flanders and Wallonia (Béland and Lecours 2008: 270). In this vein, the Francophone side, emphasizing the need for national social solidarity, considers regional social policy as a "breach in the federal Social Security" (ibid. 272), and therefore did not push for the development of subnational social policy in the Francophone part of the country.

(3) The third aspect that deserves more attention is related to the 1991 election in which the far right-wing Vlaams Blok strongly increased its vote share. Although in our SCM, we accounted for the increasing strength of right wing parties in the pre-reform period, we cannot completely exclude the possibility that our estimation results are shaped by the sudden success of the Flemish Vlaams Blok, which, in terms of potential policy effect, could have largely coincided with the 1993 reform. For this reason, it is important to shed light on the role of the Vlaams Blok and Flemish nationalism more generally for social policy and related expenditures, but also for federalization (Béland and Lecours 2008: 232–245). Starting in the

1980s, Flemish nationalism increasingly tackled the issue of social policy. Social policy was made a target of political mobilization, particularly by referring to inequalities between the Flemish and the Walloon regions in terms of paying and benefiting from the welfare state (ibid.). Flemish nationalism played an agenda-setting role by arguing—based on several studies and statistics showing that the Walloon region was a net-benefiter, and the Flemish region a net-payer to the national social insurance system—that the national level was not the appropriate level to handle social insurance programs. More importantly, to politicize these issues, Flemish nationalists framed the statistics in a way to show that people in Wallonia willingly or due to their culture overused social insurance services (ibid.: 239). However, Béland and Lecours (2008: 237) have argued that while Flemish nationalism helped to make social policy an important issue on the policy agenda, the strong link to federalization did not occur until the 1990s. For example, the 1988 institutional reform still stipulated that social insurance was exclusively the jurisdiction of the national level, which was absolutely uncontested at the time. Not until the 1990s, inspired by the Vlaams Blok, did Flemish parties begin to support a federalization of the social insurance system. In this vein, the Flemish Christian Democrats became the effective leaders of the movement towards a federalization of the social insurance system. Hence, while the nationalist movement and particularly the Vlaams Blok played an important role in putting social policy on the agenda and in politicizing the issue in the context of federalization, we cannot conclude that the rise of this far right party as such is related to higher welfare spending after the 1993 reform. However, this short discussion shows that social policy was used by Flemish parties to strengthen nationalist arguments, which after the 1993 reform could be exploited to increase regional identity and legitimacy (Dupuy and van Ingelgoom 2014). This conclusion also is in accordance with Béland and Lecours' (2008: 228) argument that the federalism reform stimulated nationalism as a form of politics. Hence, given the increased spending autonomy, the Flemish side now had an opportunity to emphasize distinctness at the policy level.

Conclusion

The starting point of the present study was the theoretical controversy over whether federalism has a fostering or rather limiting effect on welfare spending. Using the case of Belgium, one of the few countries that changed from a unitary to a federal state, we theoretically argued that the effect that federalism exerts on welfare state spending is contingent on the specific constellation of federalist powers. Moreover, we applied the Synthetic Control Method (SCM), which has shown to be a helpful tool for investigating the causal effects of particular historic events (Abadie et al. 2010, 2015).

Our analyses demonstrate that the federalization of 1993 was a turning point in Belgium. After this year, which coincides with the institutional reform that made Belgium a federal state, social spending is clearly higher than in our synthetic comparable case. Put differently, based on our analyses, we conclude that if Belgium had not introduced the reform, the country would have faced a further decrease in welfare spending after the reform, rather than the observed stability. Going more deeply into the case, we were further able to show that the new constellation of competencies in the field of social policy provided subnational units with opportunities to use social policy as an instrument to strengthen subnational legitimation and identity building (Dupuy and van Ingelgom 2014). This strategy—mainly used in Flanders and fuelled by Flemish nationalism—has led to new subnational social policy programs in the areas of health care, tax relief, and child allowances, which, however, do not replace but rather supplement existing policies at the central level (Beyers and Bursens 2010).

Against the background of the extant literature, the Belgium case clearly supports the view that federalism effects on welfare state spending is context specific and complex (Obinger et al. 2005: 44). In particular, the country and its welfare state development perfectly correspond to Rodden and Eskeland's (2003) expectations. Given the expansion of

subnational competencies within a still centrally organized tax system, subnational entities can maximize their financial resources without the need to consider the national state budget. With respect to education policy, our control case—in which the distribution of powers is less entangled—does not reflect a similar pattern. At the same time, the veto player argument also has some support: federalization has strengthened the veto position of the French-speaking part of the country, which has prevented a further federalization, and therefore, the potential disentanglement of the distribution of powers in social policy.

Of course, with respect to the substantial findings of the present study, some questions remain open for future research. First, the relationship between social spending in Belgium and the Netherlands comes to the fore, which proved to be important for the creation of synthetic Belgium. Obviously, the two countries exhibited many similarities before 1993 and took different directions regarding welfare state expenditures afterwards. Further research, based on comparative case studies, for instance, should investigate how these different paths can be explained and whether the positive effect of the federalization in Belgium can be validated. Second, the recent sixth state reform that, among other things, substantially increased subnational financial autonomy—and therefore possibly altered subnational opportunities and incentives—might be an interesting case for further research. In this context, Francophone parties have pointed repeatedly to substantial discrepancies not only between the two main parts of the country but also within Flanders (Béland and Lecours 2008: 244). Based on the results presented in this paper, we can just speculate for the moment that the partial decentralization of the tax system may hamper solidarity within Flanders and reverse the "race to the top" previously discussed.

The results presented in our study provide theoretical insights also beyond the Belgium case. First, we propose *a reversed public choice argument*: Federalism leads not necessarily to competition in terms of a "race to the bottom" of social policies, but possibly also to a

competition for regional identity and legitimacy, which may involve a "race to the top." Second, the results presented in our study imply that a pure veto player approach (Tsebelis 2000), which suggests a universal and general relationship between federal institutions and state intervention, overlooks important contingencies. Against the background of the Belgium example, we can formulate at least two reasons *why veto point "federalism" may not generally lessen welfare state expenditures*. On the one hand, actors in a federal system can have different interests and do not always *want* to act as a veto player in a way to limit social policy. Instead, social policy might be a policy field in which it is attractive to distinguish oneself in the competition between subnational entities. On the other hand, this strategy is facilitated in an institutional constellation in which subnational entities have considerable spending autonomy but are not subject to subnational tax competition.

Finally, the present study provides methodological insights for future research. By using the SCM, we have applied a method that rarely has been used in comparative political research, but that seems to be extremely helpful for diachronic comparisons using a quasi-experimental approach. Since this method enables a simultaneous focus on one single case and a quantification of causal relationships, it has value for both qualitative and quantitative research perspectives. Particularly with respect to comparative welfare research, in which we have quite a lot of comparative data over time, SCM may serve as an interesting alternative to traditional regression or case study-based approaches. Especially when the *causal* effects of crises, institutional changes, policy reforms, etc. are analyzed, the creation of synthetic cases may be promising. However, as the presented case study illustrates, the application of an SCM seems to be most enriching when the method is combined with an in-depth qualitative analysis and discussion of the underlying casual mechanisms. Further research should not only look for occasions where the use of this method is reasonable, but also how it can be further optimized for applications in political science.

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Appendix

Table A.1. Variable description.

Variable	Operationalisation	Source
Welfare spending	Public and mandatory and voluntary private social expenditure regarding old age, survivors, incapacity-related benefits, health, family, active labour market programs, unemployment, housing, and other social policy areas (cash benefits and benefits in kind).	Armingeon et al. (2014), OECD (2016)
Federalism	Index by Huber et al. (2004): 0: not a federal state, 1: weak federal state, 2: strongly federal state.	Armingeon et al. (2014)
Strength of left parties	Aggregated vote share of all left parties in the national parliament.	Armingeon et al. (2014)
Strength of right parties	Aggregated vote share of all right parties in the national parliament.	Armingeon et al. (2014)
Union strength	Union density: proportion of union members	Armingeon et al. (2014)
GDP	GDP per capita	Worldbank (2015)
Demographic structure	Proportion of the population aged 65 years and more.	Armingeon et al. (2014)
Unemployment	Unemployment rate	Armingeon et al. (2014)

Table A.2. Weight factors for the formation of synthetic Belgium (welfare spending).

Country	Weight	Country	Weight
Denmark	0	Italy	0
Finland	0	Japan	0
France	0	Netherlands	0.644
Greece	0	Norway	0
Great Britain	0	Sweden	0.19
Ireland	0.165		0

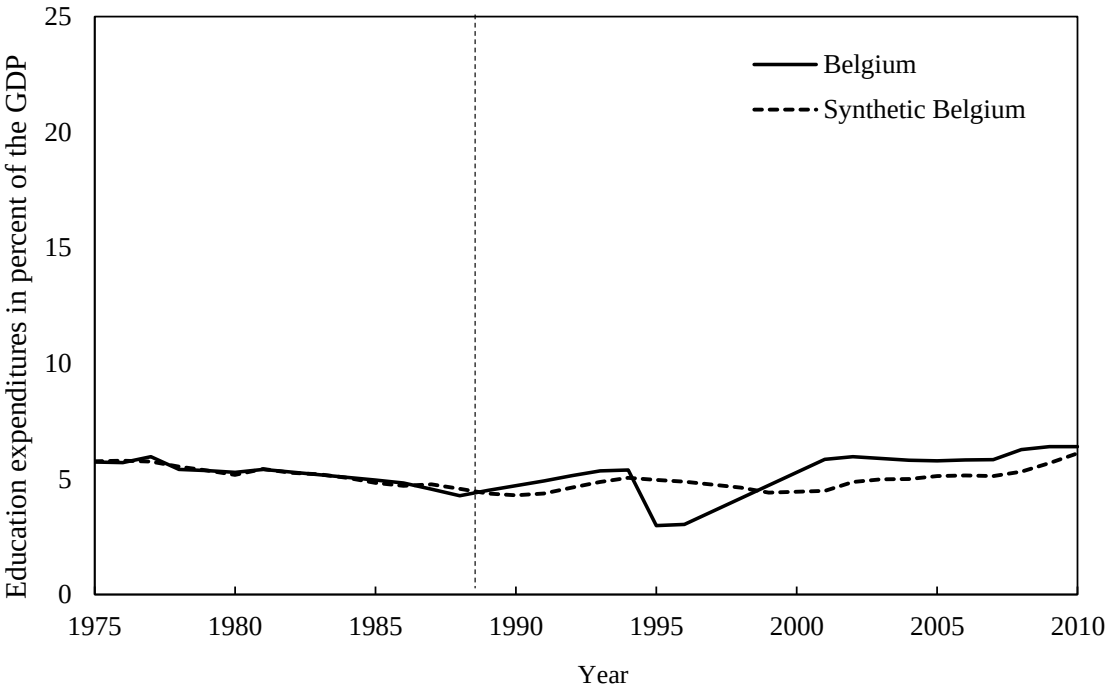
Note: Own calculations using the R package *synth* (Abadie et al. 2011).

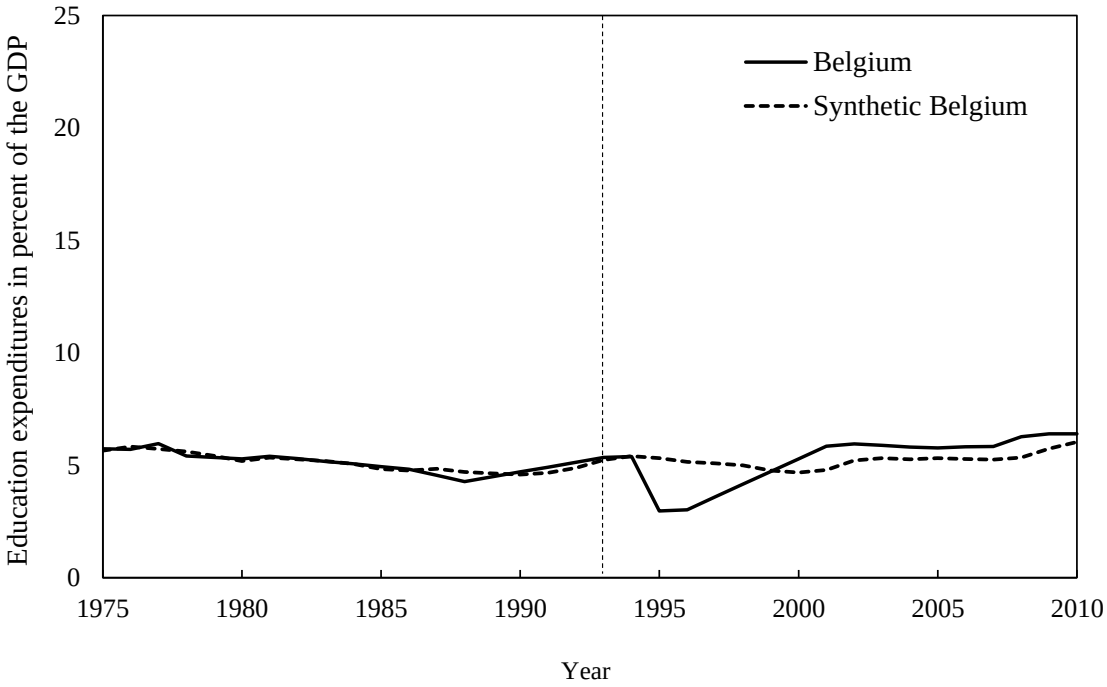
Table A.3. Variable weight factors for the formation of synthetic Belgium (welfare spending).

Variable	Weight
Welfare spending in % of GDP	0.898
Strength of left parties	0.020
Strength of right parties	0
Union strength	0
GDP	0.064
Demographic structure	0.009
Unemployment	0.009

Note: own calculations using the R package synth (Abadie et al. 2011).

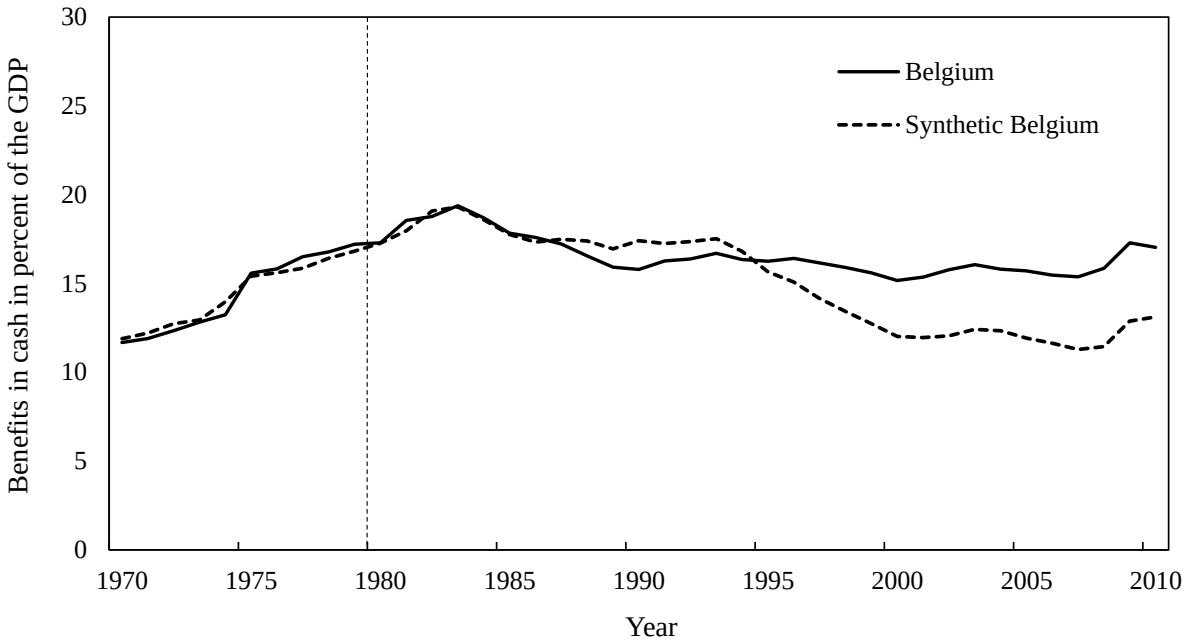
Figure A.4. Synthetic control method for Belgium and event years 1988 and 1993 - education expenditures





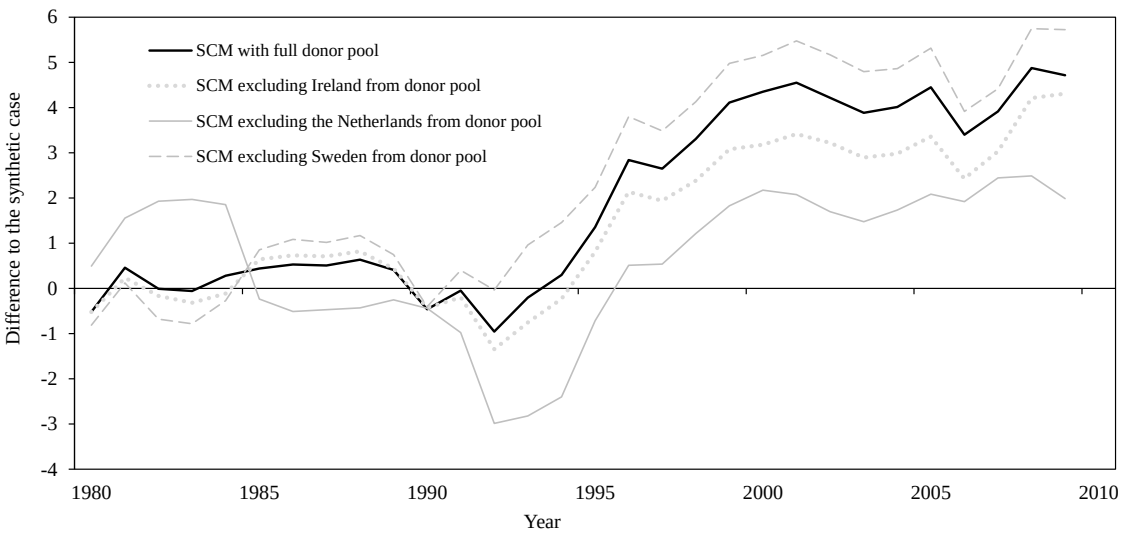
Note: Own calculations using the R package synth (Abadie et al. 2011). The short-term decrease of real Belgium in the mid-1990s can be seen against the background of a double austerity norm in place until the end of 1998, which let expenditures in percentage of GDP drop, and was largely beyond the control of the Community governments (De Rynck and Dezeure 2006: 1023).

Figure A.5*:* Synthetic Control Method for Belgium with event year 1980



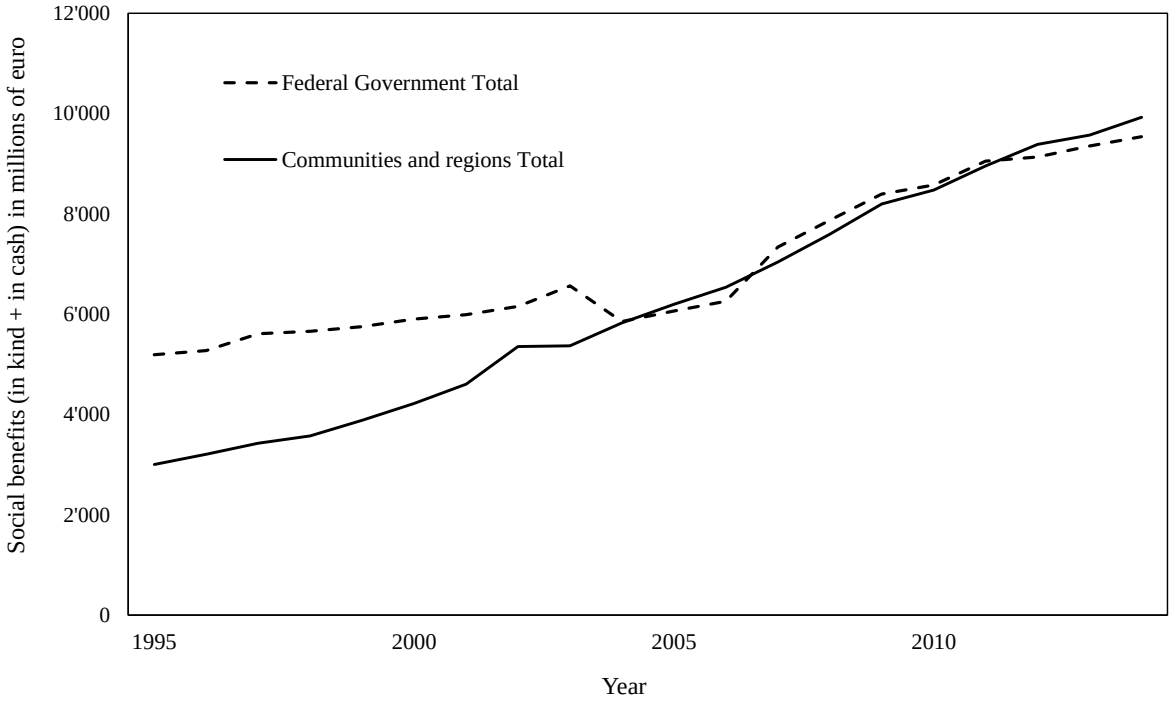
Note: own calculations using the R package synth (Abadie et al. 2011).

Figure A.6*:* Synthetic Control Method for Belgium and event year 1993 (on welfare spending) – leave one out



Note: Own calculations using the R package synth (Abadie et al. 2011).

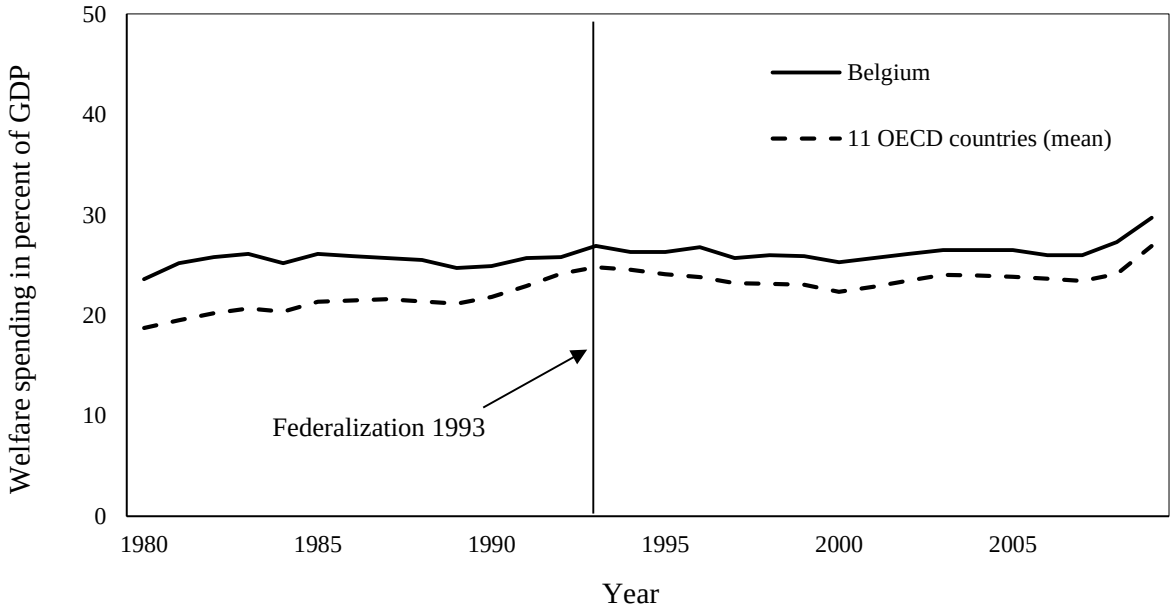
Figure A.7*:* Social expenditures of the Federal Governments and Communities/Regions compared



Note: Social benefits = benefits in cash and benefits in kind, including benefits provided by market producers.

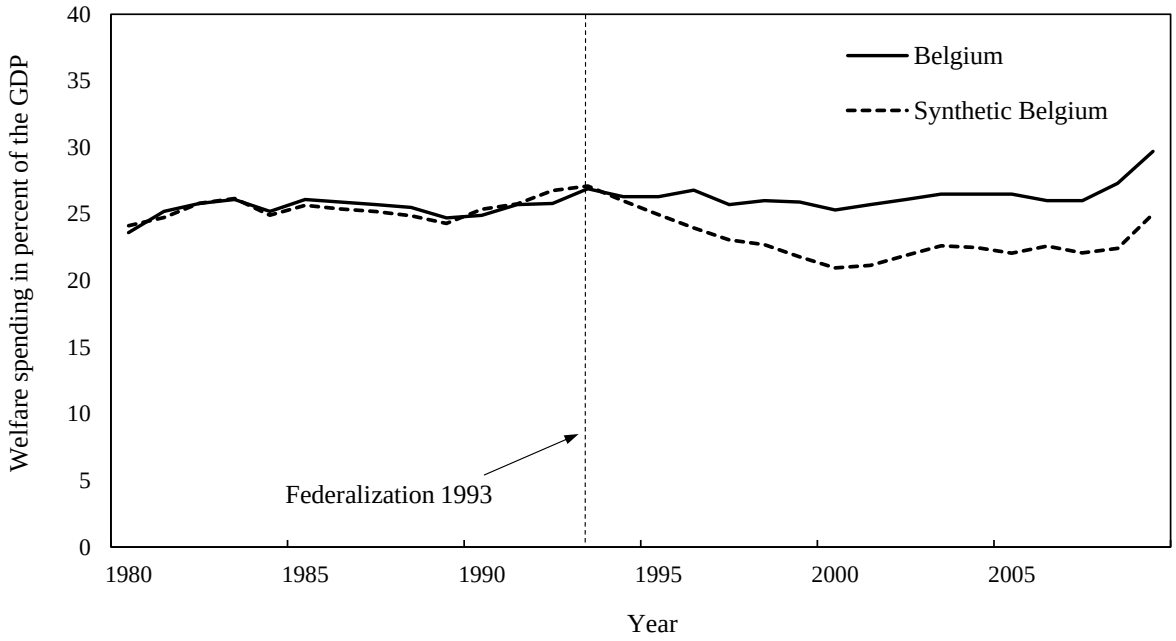
Source: National Bank of Belgium – Online Statistics (stat.nbb.be/?lang=en)

Figure 1: Welfare spending in percent of the GDP, 1980-2009: Belgium and non-federal OECD countries compared



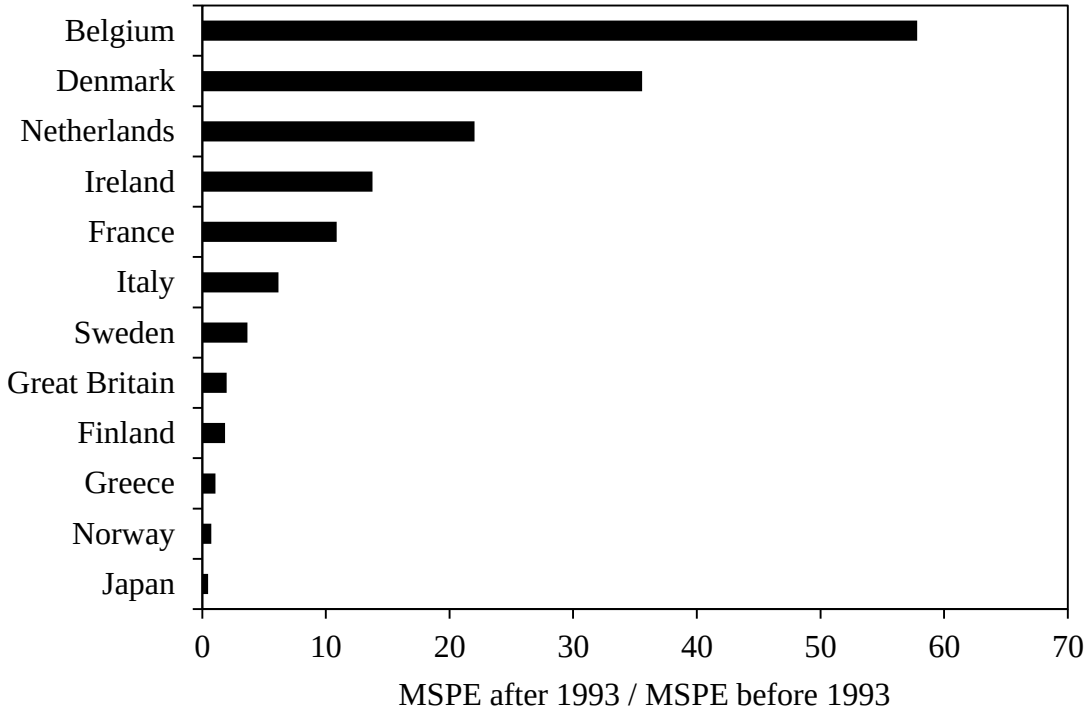
Note: own calculations using the R package synth (Abadie et al. 2011).

Figure 2: Synthetic Control Method for Belgium for the federalization of 1993 – the effect on welfare spending



Note: own calculations using the R package *synth* (Abadie et al. 2011).

Figure 3: Synthetic Control Method for Belgium and OECD countries with event year 1993 (welfare spending): the proportion of the MSPE after 1993 compared to the MSPE before 1993



Note: MSPE = mean square predicted error. *Source:* own calculations using the R package *synth* (Abadie et al. 2011).