

Georg Picot (2021) “Cross-National Variation in Growth Models: Three Sources of Extra Demand” In: *Growth and Welfare in Advanced Capitalist Economies: How Have Growth Regimes Evolved?*. Edited by: Anke Hassel and Bruno Palier, Oxford: Oxford University Press, pp. 135-160. DOI: 10.1093/oso/9780198866176.003.0004

Abstract

The chapter presents a new framework for categorizing economic growth models and applies it to twenty-eight OECD countries from 1995 to 2016. The framework draws on three fundamental ways in which economies can benefit from additional demand: the private sector (households and companies) can spend more than its income, the public sector can spend more than its revenues, or the economy sells more abroad than it imports. The empirical section uses fuzzy-set ideal type analysis to identify the combinations in which advanced economies used these three ways of boosting demand in three subperiods between 1995 and 2016. The results show that most economies use at least one of the three sources of extra demand to tackle the era of low growth. At the same time, there are clear differences in growth models between groups of countries. These are in line with clusters that the literature commonly identifies due to their institutional similarities. The growth models in this chapter are therefore outcomes of differences in growth regimes.

Keywords:

growth models, growth regimes, economic growth, economic demand, public deficit, private deficit, current account, developed countries, fuzzy-set analysis

Cross-National Variation in Growth Models: Three Sources of Extra Demand

Georg Picot

1. Introduction

The global financial crisis of 2008–9 has drawn attention to the economic growth regimes that contributed to causing the crisis. The subprime lending practices in the US and the wider financialization of the US economy have received particular attention. Also, the trajectories of other countries, such as Greece and Spain, have been widely discussed. Yet, public debate and academic scholarship have not sufficiently appreciated the variety of growth regimes before and after the crisis. Only recently has research in comparative political economy started to account for different models (e.g. Baccaro and Pontusson 2016). Yet, this literature prevalingly analyzes only a couple of exemplary countries empirically—often a selection of “usual suspects” that are frequently subject to case studies. This chapter has two main objectives. First, it proposes an innovative and parsimonious framework of categorizing growth models. Second, it maps the variety of growth models across developed countries. The introductory chapter by Hassel and Palier in this volume also analyzes a large set of countries rather than a few usual suspects. While Hassel and Palier focus on growth regimes, i.e. on institutional, policy, and organizational frameworks, I focus on growth models, i.e. sources of demand that result from growth regimes.

The conceptual framework presented in this paper makes use of a spending-based decomposition of GDP and focuses on three broad, potential sources of additional economic demand: public deficits, private deficits, and trade surpluses. These are ways of generating extra demand by borrowing (domestic deficits)¹ or lending (external surplus), which I will call “demand boosters.” The empirical analysis identifies the combination of these demand boosters across twenty-eight OECD countries and over three sub-periods between 1995 and 2016 by conducting a fuzzy-set ideal type analysis.

The next section will draw on existing literature and develop the theoretical framework. The third section describes the method and data used. This is followed by an analysis of growth models as well as a preliminary review of differences in economic outcomes between the models. Finally, I will conclude and indicate some implications.

2. A new taxonomy of economic growth models

2.1 Motivation

Since the Fordist period of relatively abundant growth after World War II ended, we see more imbalanced ways of fostering growth. Krippner (2011) has convincingly shown for the United States how policymakers’ ad hoc responses to low economic growth have brought about financialization of the economy including high levels of private debt, which ultimately led to the financial crisis of 2008. Similarly, Streeck (2011) observes a sequence of economic imbalances

¹ In this chapter, “domestic deficits” refers to public and private deficits.

in advanced democratic capitalist countries since the 1970s, from inflation to public deficits to private deficits, intended to cushion the conflict between democracy and capitalism that opens up as growth declines (see also Streeck 2014).

While examining common trends is useful, it is vital not to lose sight of cross-national diversity. In this chapter, I accept the premise by Krippner (2011), Streeck (2011), and others that low growth has led to deficit-driven growth strategies. However, a rich tradition of comparative political economy (CPE) (see Hassel and Palier, this volume) has shown that advanced capitalist economies can be organized in substantially different ways. In line with this tradition, my chapter finds clear cross-national differences in growth models. It is well known that welfare state institutions and industrial relations vary substantially across states (e.g. Hall and Soskice 2001; Esping-Andersen 1990; Arts and Gelissen 2010; Crouch 1993). Moreover, social and economic institutions are often interlinked and complementary in such a way that they form distinct “models,” “varieties,” or “regimes.” The welfare state is a vital part of growth regimes, by propping up economic demand, providing and shaping investment in labor force skills, and affecting labor costs (Hassel and Palier, this volume).

Less recognized in the CPE literature is the international interdependence between political economies. Arguably, the specific imbalances in different national economies have reinforced each other through international trade and capital flows in the run-up to the 2008 financial crisis. If so, the differences between them were crucial for inflating the financial bubble that burst in 2008 (Iversen and Soskice 2012; Hall 2014).

At the same time, much of the literature on growth models analyzes just a few exemplary cases and does not provide a comprehensive account of cross-national variation. This entails two problems: (1) that usual suspects, such as Germany and the US, are taken as representative for

groups of countries (such as Coordinated Market Economies and Liberal Market Economies) without further empirical evidence; (2) that the diversity of growth regimes beyond two or three theoretically identified models is being underestimated. Indeed, when considering more countries, Hassel and Palier in this volume find five different growth regimes. To make up for the two mentioned problems, this chapter provides a systematic empirical account of growth models in twenty-eight developed economies since 1995.

2.2 The Conceptual Framework

In the long term and in a closed economy—or on the global scale—economic output can increase as a result of population growth or as a result of higher productivity (output per person; Piketty 2014: Ch. 2).² From a normative perspective, an increase in output due to population growth is not particularly interesting as it does not increase the material resources per person. Hence, for increasing growth in the long term, raising productivity is vital.

Productivity can be increased by various capital investments (including investments in “human capital”) and by reorganizing production processes. Productivity investments can focus on specific or general skills, on incremental or radical innovation, and be publicly or privately funded. According to the CPE literature, private funding would be expected to play a major role in Liberal Market Economies (LMEs), both by private firms spending on research and development for radical innovations and by private funding of education (Hall and Soskice

² More precisely, rather than population size the number of people in employment is decisive. This is targeted by the common supply-side strategy of labor market activation (cf. Eichhorst et al. 2008; Clasen and Clegg 2011; Bonoli 2013).

2001). In Coordinated Market Economies (CMEs), firms more commonly pursue incremental innovation, which is often linked to their investments in vocational training. In these economies, we can expect more state support for innovation and education than in LMEs. Nordic countries have generally been good at building social policies in line with the idea of social investment (Morel et al. 2012), such as upskilling Active Labor Market Policies and high-quality public education, including childcare, helping them to adapt the workforce to technological progress. In Southern Europe, fragmented industrial relations and lower state capacities constrain public support for productivity investments. For a more detailed discussion of the role of education and training in growth regimes, see Hassel and Palier as well as Chevalier in this volume. I will briefly return to investments in productivity toward the end of the chapter, to see whether the growth models identified in this chapter are associated with different levels of investment in education.

My main analysis, however, will adopt a more short-term and demand-side perspective. In the short term, open economies have many more options of boosting growth than in the long term. I will mostly take a demand-side perspective, hence focusing on growth models, for three reasons: (1) examining spending is appropriate for studying economic imbalances of the kind suggested by the literature (e.g. Krippner 2011; Streeck 2014); (2) a demand-side analysis helps to consider economic interdependence between countries; and (3) even nominally supply-side strategies often have important implications for demand, for example when financial deregulation facilitates consumer credit and thus spending (Crouch 2009).

The framework I propose for conceptualizing different short-term ways of boosting economic growth starts from the expenditure-based decomposition of the Gross Domestic Product (GDP):

$$Y = C + I + G + (X - M)$$

Economic output (Y) can be divided into private consumption spending (C), private investments (I), government spending (G), and the balance between exports (X) and imports (M). Each of these elements can be the source of extra demand. If spending by households, firms, or government exceeds their revenue, consumption, investments, and government spending respectively are higher than they otherwise would be, thus increasing domestic demand. If exports exceed imports, the economy benefits from more foreign demand than it would if exports were equal to imports.

If we drop the distinction between private consumption and private investments,³ we can simplify the scheme and identify three ways to boost demand: private deficits, government deficits, and trade surpluses. The first two enhance domestic demand, the third exploits foreign demand. Note that not only the third demand booster relies on international transactions. Private and government deficits by themselves can be financed through domestic as well as foreign credit. If both the private and the public sector run deficits, as was the case, for example, in the United States in 2005–7, they actually have to be funded from abroad,⁴ which ultimately means from countries with current account surpluses. By the same token, an economy cannot “run” all three demand boosters at the same time. Domestic deficits (both private and public) cannot go along with a current account surplus because a current account surplus implies that more values

³ The distinction would matter from a supply-side or productivity perspective, but it is not relevant for the demand-side perspective adopted in the present analysis.

⁴ In theory, domestic deficits (i.e. *flows*) can be paid out of domestic saving *stocks*. Yet, these stocks would inevitably be used up soon.

flow out of the country than in. Further, there is of course no necessity for an economy to run deficits or surpluses at all. In principle, private and public actors can balance their books and, in this case, the current account will be balanced as well.

The mentioned deficits and surpluses can of course fluctuate over time. They may be affected by exogenous economic shifts or they may change due to short-term government policies, such as mere countercyclical use of public deficits. By contrast, this chapter traces where and when these deficits or surpluses have occurred persistently over time. In such cases, we can interpret them as a consequence of growth regimes. They occur with certain continuity because they are facilitated by institutions and long-term policies, in particular: the financial system, corporate governance structures, product market regulations, wage-setting institutions, labor market regulation, the education and training system, and social protection policies (see Hassel and Palier in this volume). In my framework, a specific combination of the three demand boosters lasting over several years (e.g. over a business cycle) is a specific type of growth model. Growth models are then persistent spending patterns that are an intermediate outcome of growth regimes and strategies, intermediate in the sense of being a link between the growth regime and the actual economic growth outcome.

Note, therefore, that governments cannot directly choose a growth model. Their growth strategy may aim at a certain growth model. However, to work towards it, they have to adapt the growth regime, where they are confronted with institutional path dependencies. Moreover, the effects of the growth regime depend on exogenous economic fluctuations. Even public deficits, the demand booster most closely connected to government, are affected by economic shocks, demographic trends, and past financial commitments, rather than being the direct result of a precise spending strategy. I do argue, however, that the size of demand boosters in cross-national

comparison and over a multi-year period reflects the growth regimes, which in turn can be transformed by growth strategies.

Further, I use the term “growth models” independently of success in actually generating growth. Demand boosters are by themselves suited to increase economic output, but actual growth depends on a wider range of factors. Similarly, the spending patterns that underlie demand boosters not only affect growth but are also themselves affected by it. For example, a recession (possibly caused by an exogenous shock) leads almost automatically to government overspending. Nevertheless, recession-induced overspending can be seen as maintaining demand under the given circumstances, rather than cutting spending or raising taxes.

My approach has some similarities with the one by Baccaro and Pontusson (2016; see also their chapter in this volume). Like them, I investigate growth models in the post-Fordist, low-growth era from a demand-side perspective and with an interest in different potential drivers of demand. Both approaches are sensitive to cross-national diversity, possibly diverging from the political-economic models established in the literature. Also the periodization is similar by analyzing separately the build-up to the financial crisis as well as on the changes after the crisis. The main difference is that I use decomposition of GDP to analyze three demand boosters, which together encompass the spending side of the economy. Thus, the three constituent parts of my growth models are more comprehensive, but the analysis is less detailed and less sensitive to the composition of demand in terms of sectors and income distribution. Baccaro and Pontusson (2016) make a strong argument that the price-sensitivity of exports can be used to distinguish among export-oriented models (see Hassel and Palier in this volume for a similar distinction), which is beyond the scope of my analysis. Somewhat puzzling, however, is that government spending is missing from their account. Finally, although not directly implied by my taxonomy

of growth models in terms of three demand boosters, my argument remains more open to the relevance of supply-side institutions—in this respect consistent with Hassel and Palier’s approach to growth regimes in this volume.

2.3 The Range of Growth Models

Various authors have pointed out how different political-economic models are associated with the domestic deficits or external surpluses of interest in this chapter (see also Hassel and Palier in this volume). From a Varieties of Capitalism perspective, vocational training, wage moderation as well as fiscal and monetary restraint in CMEs favor the export sector, while weak collective bargaining, financial deregulation, and more growth-oriented fiscal and monetary policy sustain domestic demand in LMEs (Iversen and Soskice 2012). Iversen and Soskice (2012) have further pointed out that the imbalances of LMEs and CMEs have reinforced each other before the crisis, as the external surpluses by CMEs helped to satisfy the need for credit in LMEs. The way financial deregulation has facilitated private-deficit-driven economic demand in LMEs by giving people on low income access to credit has been widely recognized (see e.g. Crouch’s 2009 notion of “privatized Keynesianism”). However, growth models based on domestic demand (private or public) can be found also in Southern Europe, where lacking wage coordination and expansionary fiscal policy have contributed to domestic demand, while European Economic and Monetary Union (EMU) amplified diverging price dynamics between Northern and Southern Europe and facilitated cheap credits flowing from Northern to Southern Europe (Hall, 2014). Also scholars from the Regulation School have highlighted differences between growth models before the Great Recession. They have extended this perspective to Central and Eastern Europe (CEE) where they distinguish between dependent industrialization (e.g. Poland, Slovak Republic,

and Czech Republic) and dependent financialization (e.g. the Baltic states; Becker and Jäger 2010; Bieling 2012; Avlijaš et al. in this volume).

The three demand boosters, private deficits, public deficits, and external surpluses, can be combined in seven ways (mathematically eight, but one is economically impossible). Using this taxonomy of growth models, the chapter contributes to one of the aims of this volume, which is to distinguish growth models beyond the broad distinction of export-led and domestic demand-led (see Hassel and Palier, this volume). In the following, I go through the possible combinations and indicate, based on the literature, which cases can be expected to display each of these growth models (see Table 4.1). The first growth model builds exclusively on continuous trade surpluses. This is the “export-led growth model.” As mentioned, this does not mean that such economies run no private or public deficits at all, but only that they are moderate in size or not frequent. This model can be expected in CMEs, in particular Continental and Nordic Europe. The main strength of Continental European economies is in export of high-quality manufacturing, while Nordic economies are more successful in exporting high-end, ICT-intensive services (see Hassel and Palier, and Thelen, this volume). Also in East Asia, an export-led growth model is likely due to CME-similar institutions supportive of exports. As highlighted by Iversen and Soskice (2012), but following also from general theory of international trade, we would not expect CMEs to combine trade surpluses with private or public deficits due to restrictive monetary and fiscal policies that seek to contain inflation and real exchange rates. Japan, as is widely known, has extraordinarily high public debt and has had high public deficits since the early 1990s. Hence,

we know empirically that Japan does not fit this expectation and combines trade surpluses with public deficits even if we lack a consistent theoretical explanation.⁵

<COMP: INSERT TABLE 4.1 NEAR HERE>

Growth models that foster domestic demand can make use of private or public deficits. Large and continuous private deficits would be expected in highly financialized economies, such as English-speaking countries and the Baltic states.⁶ In LMEs there is no contradiction between private deficits and loose fiscal policy (Iversen and Soskice 2012), even if the latter is more likely a consequence of low taxes than of high spending. Hence, in these countries domestic demand may well be propped up by government deficits, in addition to the lavish use of private debt, which is in line with the fact that the US, as is widely known, has had high public deficits in many years. In Australia and Canada, abundant natural resources may contribute to more balanced or even positive external accounts in spite of liberal institutional incentives. Growth models where private deficits dominate will be called “finance-led.”

Public deficits have been widespread in many developed countries in recent decades. Yet, only in some would they be expected to play a dominant role compared to the other two demand

⁵ An important driver of public deficits in Japan is of course demographic ageing, which is more pronounced than in other developed economies. A reason why governments do not manage to adjust fiscal dynamics is suggested by Estevez-Abe (2008: 98–100). She explains that changes in the electoral system in the early 1990s made it electorally more risky for governments to impose new financial burdens on the majority of voters.

⁶ On financialization in the Baltic states as well as Bulgaria and Romania, see Becker and Jäger (2010: 13–16).

boosters. This will be called the state-led growth model. Although CEE countries tend to have high export shares, many of them, in particular the so-called Visegrád group (Poland, Hungary, Czech Republic, and Slovak Republic), are characterized as “dependently industrialized” (Bieling 2012), “Dependent Market Economies” (Nölke and Vliegenthart 2009), or “FDI-led growth models” (Bohle and Regan 2019) because many export firms are foreign-owned and exports are tied into the production chain of foreign companies. Although high export shares make these economies export-oriented (Bohle and Regan 2019; Palier and Hassel, this volume), exports are to a high degree balanced by imports (for example, when components are imported and the assembled product exported; Bohle and Regan 2019: 9). Therefore, the Visegrád countries do not gain a lot of extra demand from exports. By contrast, public deficits are likely to be high in these countries for a variety of reasons: (1) up to the late 1990s, the continued costs and fiscal imbalances of the economic transition; (2) investment incentives and favorable tax rules to attract foreign direct investments (Bohle and Regan 2019); (3) in some countries, such as Poland and Hungary, a turn towards state-led developmentalism after the global financial crisis (Toplišek 2020; Naczyk 2019). Therefore, we can expect public deficits to be the most consistent demand booster in the Visegrád countries.

High public deficits are also likely to have played a leading role in Southern Europe before EMU when they were frequently supplemented by trade surpluses with the help of strategic currency devaluations, implying a mixed export-state model (Ferrera 2010). Under EMU, national currency devaluations were no longer possible and the scope of public deficits was constrained. Instead, these countries received easy access to foreign credit. This may have led to private deficits as an important demand booster, but may also have induced looser public spending and, thus, public deficits in spite of EMU. This growth model can be called “domestic-

led” as it combines private and public deficits. Yet, it has widely been acknowledged that Spain relied more strongly on private than public deficits. Perez and Rhodes (2015: 193–4) trace the distinct fiscal policy in Spain back to how Spain reacted to the crisis of the European Exchange Rate Mechanism in the early 1990s. As mentioned above, it is possible that some English-speaking countries also combine private and public deficits.

The logically possible combinations in this taxonomy include two growth models that would mix a current account surplus with either public deficits or private deficits. As mentioned above, pursuing external surpluses while boosting internal demand is economically contradictory (unless, as Baccaro and Pontusson 2016 argue, if exports are price-insensitive). These are therefore unlikely growth models. The combination of external surplus and public deficit may nevertheless be found in Southern Europe prior to EMU when these two factors were reconciled through strategic exchange rate devaluations. As mentioned above, we know empirically that this combination is also expected in Japan. By contrast, it is impossible for a country to run an external surplus and domestic deficits in both private and public sector at the same time. Finally, it would be possible that an economy does not strongly use any of the three demand boosters. Such a “balanced growth model” (see Table 4.1) would have to rely on productivity increase and mere short-term occurrence of domestic deficits or external surpluses.⁷

⁷ My notion of “balanced growth model” differs from Baccaro and Pontusson (this volume). They use the term for the combination of demand from household consumption as well as exports.

3. Data and Method

The main empirical task of this chapter is to map the variety of growth models across developed countries by applying the taxonomy developed above. The analysis covers as many developed capitalist democracies as possible across Europe, North America, East Asia, and the Antipodes, while excluding the OECD members Turkey, Israel, Chile, and Mexico. States that are not OECD members could not be covered due to data limitations. Also for Luxembourg and Iceland, crucial data was not available. Consequently, the dataset comprises twenty-eight developed capitalist democracies (for a list see Table 4.2 further below). This is far more comprehensive than most studies on this topic.

Although the main interest of the chapter is in cross-sectional variation, I will also trace changes in growth models over time. This will enable me to look into both the conditions that led up to the global financial and economic crisis as well as its consequences. The data reaches back to 1995. For earlier years, there was not sufficient data available. However, the middle of the 1990s makes for a good starting point as many governments embarked on substantial welfare state reforms at that time (Palier 2010; see also the chapter by Hall in this volume). Moreover, by this time the most tumultuous phase of post-socialist transition in Eastern Europe was over. At the other end, the period of analysis dates until 2016, the last year with almost complete data available.

I have divided the overall period of analysis (1995–2016) into three economically distinct phases. The first period, 1995–2000, covers a time of relatively sustained growth, finishing with the peak of the “dot-com bubble” (see Figure 4.1); it also includes the crucial years of the run-up

to EMU when many European states were making an effort to fulfill the convergence criteria.⁸ The second period, 2001–7, exactly extends over one business cycle, from the bursting of the Dot-com bubble to the year before the global financial and economic crisis erupted. Hence, this period captures the growth models that were part of the global economic constellation leading to the crisis. Next, I have deliberately omitted the trough years of the crisis 2008–9, as the circumstances were exceptional and characterized by emergency measures rather than growth models in any meaningful sense. Consequently, the third period is 2010–16 and comprises the rather slow and varied economic recovery. In fact, several European states fell back into recession in 2012.

<COMP: INSERT FIGURE 4.1 NEAR HERE>

As the taxonomy of growth models in this chapter starts from a decomposition of GDP, the measures of the three demand boosters are deliberately comprehensive. High reliance on exports is operationalized by a current account surplus as percentage of GDP. The current account consists of the trade balance as well as international primary income (from investments or remittances) and net cash transfers (such as donations or international aid). The main interest in this chapter is of course in the trade balance. I use the current account balance anyway in order to maintain the comprehensiveness of the taxonomy. In any case, the trade balance is the principal component of the current account balance and the two are highly correlated.

Public deficit is measured as general government net borrowing as a share of GDP. This is the standard measure used for comparing public budget balances. For instance, it is the basis for

⁸ The EMU convergence criteria were adopted in the Maastricht Treaty in 1992; the initial Eurozone member states were decided in May 1998; and the euro came into force in January 1999.

the European Commission's assessment of the Maastricht criterion on public deficits. It covers all levels of government as well as social security funds. A drawback is that it includes payments of interest on debt, which are driven by the historical record of debt accumulation and do not directly contribute to demand. There are three reasons why this is nevertheless the best indicator for the purposes of this chapter. First, although interest payments do not themselves generate economic demand, they constitute income for other actors who may use it for consumption or investment. Although for national GDP this income is "lost" if it is paid to foreign investors in government bonds, in this case it is reflected in the current account balance. Second, for a government that faces high deficits partly due to interest payments, the alternative would be to lower spending or to increase taxes. Both would have a negative effect on economic demand. Hence, although a high public deficit with high interest payments does not fully contribute to demand it is still a sign of upholding demand in spite of high public debt. Third, to be consistent with the GDP-decomposition approach of the theoretical framework, it is necessary to choose a comprehensive measure rather than one that excludes interest payments. If interest payments were deducted from public deficit figures, they would have to be excluded as well from private deficit and current account figures. This would defeat the comprehensive conceptual framework and entail an infeasible accountancy exercise.

The measure of private deficits is equivalent to the one for public deficits, i.e. net borrowing by the private sector as share of GDP. This comprises net borrowing by households and corporations. The concept of "privatized Keynesianism" (Crouch 2009) mostly focuses on household deficits under financialized capitalism. Yet, it is important to include spending by corporations, which contributes to economic demand as well.

The use of broad measures may handicap interpretation in some cases. However, their use is consistent with the theoretical framework of this chapter, and interpretation can be aided if necessary by additional, more specific statistics. Moreover, the use of comprehensive indicators allows exploiting accountancy identities in the data: private and public deficits add up to the current account deficit; and it is impossible for a country to use all three demand boosters concurrently.

For determining which combination of the three demand boosters are deployed across developed countries, I use fuzzy-set ideal type analysis (Kvist 2007). This method is designed to flexibly analyze combinations of empirical conditions. It uses the value of one for indicating full presence of a certain condition (here, full use of a demand booster) and the value zero for full absence. At the same time, the method allows for gradual values between zero and one, where all values above 0.5 mean that the condition is more present than absent and vice versa below 0.5. In a process called calibration, the indicators listed above are used to assign to each case a gradual membership score. Using Boolean algebra, the conjunction of values for all three demand boosters will yield membership scores for each logically possible combination, i.e. each of the hypothesized growth models above, but cases will have a score above 0.5 in only one of the seven models. Fuzzy-set ideal type analysis is an efficient way to summarize a large amount of data in a systematic and transparent way. It allows for case-oriented analysis even when the number of cases is large.

4. Mapping the Growth Models

Table 4.2 presents the descriptive data of the three main measures, private deficits, public deficits, and current account surpluses. As is customary for surplus/deficit data, it presents the

balances, which means that deficits are negative and surpluses positive. The table shows the averages over the period of analysis (1995–2016) excluding the slump years 2008–9.

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The accountancy identity of private and public deficits adding up to current account deficits can be recognized well in the table. That they rarely add up exactly can be attributed to this highly aggregated data often not being entirely precise, as well as to small incongruences in the dataset (regarding source of data and years available, as documented in the table’s note). The main point to note from the table is the overall distribution of the three demand boosters. While cross-national variation of current accounts spreads relatively evenly around a midpoint of approximately zero, the other two indicators do not. As is well known, governments overwhelmingly ran deficits in recent decades: hence the median of -2.55 . This is in line with the literature that highlights a common tendency of political economies to counter the era of low growth by overspending. By contrast, private actors in advanced capitalist economies have a tendency to save (median 2.00). This suggests that the narrative of financialization leading to “privatized Keynesianism” cannot easily be generalized. The standard deviation in the bottom row of the table shows that variation around the midpoints is substantial, which supports the motivation of this chapter to explore cross-national diversity of growth models.

Calibration is crucial in fuzzy-set analysis. The calibration thresholds for this analysis were decided on the basis of the average data from Table 4.2 over the entire period, instead of each subperiod. This conforms to Kvist (2007) and makes it possible to consistently track changes in growth models between the three subperiods. Calibration of the current account balance is straightforward. The target set is defined as economies with a lasting and large current account surplus. The crossover threshold between membership or not is set at 0, when exports equal

imports. Full members of the set are countries with a surplus of 4 or more percent GDP. Fully out of the set are countries with a deficit of at least -4 (see Table 4.3).⁹

<COMP: INSERT TABLE 4.3 NEAR HERE>

Calibration of private and public deficits faces the difficulty that, as shown above, neither distribution is centered on zero. In most countries, private actors run surpluses and governments run deficits. In fuzzy-set analysis it is recommended to use theoretical and substantive considerations in calibrating membership scores (Schneider and Wagemann 2012). Regarding the public budget, small deficits are widely seen as normal and unproblematic. In Europe, the euro convergence criteria have established -3% as a widely acknowledged threshold. The calibration of this demand booster accepts this value as the crossover point. Therefore, the fuzzy-set results will only identify countries with large deficits as part of the group of countries that use public deficits to boost economic demand. This is a conservative measurement that factors in how widespread small government deficits are. Countries are considered full members of this set only if their deficit is -5% or more. They are scored as fully out of the set if they regularly run surpluses of 1% or more.

Regarding private net borrowing, there is neither a widely shared judgement on the size of these deficits nor an established institutional threshold. It is striking that according to Table 4.2 even the US and UK ran on average slight private surpluses over this period even though they are widely regarded as typical cases of growth models driven by private credit. Yet, recent scholarship has cast doubts on the robustness of this characterization (Baccaro and Pontusson

⁹ Using the defined thresholds, the raw data is transformed into fuzzy-set scores by a logistic function using the fsQCA software (www.fsqca.com).

2016; Barnes 2016). Therefore, the assignment of these cases should not guide the calibration. A calibration that takes into account the center of gravity of the distribution (median: 2.00) and specific cases, such as US and UK, would have to choose a surplus value as crossover point. However, in contrast to the choice for public deficits above, this would be a lenient rather than a conservative adjustment, i.e. it would run the risk of categorizing too many cases as running private deficits, even some that have slight surpluses. Therefore, I accept zero as the most straightforward crossover point for this calibration. Full membership in the set of countries with repeated and big private deficits occurs when the average deficit is -4% or more. Countries are fully out of the set if they run surpluses of 4% or above.

Table 4.4 provides an overview of the incidence of the various growth models that the fuzzy-set ideal type analysis identified. There are four points to take away from the table. First, it confirms that advanced capitalist countries generally responded to the era of low growth by trying to gain extra demand from either internal deficits or external surpluses. In only five of overall eighty-four country-periods (twenty-eight countries over three subperiods) did economies not resort to the marked use of any of the three demand boosters (balanced model). Second, Table 4.4 shows that, at the same time, there is substantial diversity in the use of demand boosters. Counter to literature that suggests common trends (Streeck 2011), developed economies have very different modes of tackling the low-growth era.¹⁰ Third, the table supports the notion from economics of international trade as well as Varieties of Capitalism that growth models tend to have a certain internal consistency (Iversen and Soskice 2012). Few economies

¹⁰ As found in Table 4.2, moderate overspending by governments is in fact a common feature in advanced economies. This is explicitly omitted from the calibration of the public deficits for the fuzzy-set analysis. Growth models are nevertheless distinct beyond this moderate commonality.

mix sustained current account surpluses with large deficits in either the private or the public domestic sector: four in 1995–2000, only two in 2001–7, and five in 2010–16. In the latter period, all five mix export with public deficits, for which it certainly mattered that public deficits were generally high in the aftermath of the crisis.

<COMP: INSERT TABLE 4.4 NEAR HERE>

Fourth, while there was no notable tendency of developed countries to move towards a common growth model over these three periods, we can observe a few more subtle shifts. The “purity” of the growth models was somewhat higher in the run-up to the crisis (2001–7). More countries than in the other two subperiods pursued export-led, finance-led, and domestic-led growth, while less countries had growth models that mixed external surplus with internal deficits. Moreover, the state-led growth model was less common than in the other two subperiods. Hence, growth was more strongly driven by external demand and internally by private deficits. This “purity” of the growth models made it possible that they mutually reinforced each other through international financial flows (Iversen and Soskice 2012; Hall 2014). After the crisis (here, 2010–16), we see the state-led model rising again as well as the mixed export-state model, which, as mentioned, is a direct consequence of the crisis. It reflects the financial commitments governments incurred by bailing out banks, providing unemployment benefits, and stimulating the economy, as well as decreased public revenues due to low growth. However, yearly data show that in many countries public deficits declined over the period and economies reverted to their pre-crisis growth models. Similarly, the yearly data show that immediately after the financial crisis, private deficits disappeared as private actors had no longer the same easy access to credit and postponed spending due to the uncertain economic

environment and low inflation. In many countries private deficits picked up again during 2010–16.

Table 4.5 lists the more detailed findings by country, grouped into the clusters commonly identified by the literature. The table also reports to what degree cases fulfill the respective model. Fuzzy-set scores close to one mean that the model is almost perfectly represented, while values close to 0.5 mean that the fit is very loose. To start with, the table highlights nicely how dominant the export-led growth model is in Continental Europe. In 2001–7 this was indeed the only growth model among the Continental European countries in the sample. In the phases before and after, four out of six countries had export-led models, the other two state-led. As expected, the export-led model is dominant in the Nordic countries as well. Sweden and Denmark had export-led economies in all three sub-periods. Norway complemented its export-led growth with private deficits in 1995–2000. Finland can be considered a balanced growth model in the post-crisis period as it had on average a moderate public deficit (–2.3% of GDP), a small private surplus (1.3) and a slight current account deficit (–1). Also in East Asia, the strong contribution of current account surpluses can be observed as hypothesized. In Japan, it was combined in all three phases with high public deficits. In South Korea, it went along with private deficits in the two subperiods before the crisis.

<COMP: INSERT TABLE 4.5 NEAR HERE>

The picture in Southern Europe is a bit heterogeneous but broadly consistent with the expectations from the literature. Domestic deficits, in particular public deficits, prevail as demand boosters. Italy mixed public deficits with an external surplus in the run-up to EMU and managed to return to an external surplus in 2013 while also public deficits have declined (narrowly a mixed export-state model in 2010–16, with a fuzzy-set score of only 0.51). In the

pre-crisis period after EMU (2001–7), domestic deficit-driven growth occurred in all four South European countries. The two countries, Greece and Portugal, in which both the private and the public sector contributed to boosting demand, were also the two South European countries that were bailed out by European and international institutions after 2010. In Italy government deficits prevailed, and in Spain private deficits, reflecting the housing bubble that built up in Spain in that period. Thus, the taxonomy of this contribution captures the commonality as well as the diversity of the South European political economies in this period (cf. Perez and Rhodes 2015).

In 1995–2000, all growth models in Central and Eastern Europe, except Estonia, were state-led as expected. In 2001–7, Hungary and the Slovak Republic supplemented public deficits with private deficits, while Slovenia shifted to a finance-led model. After the crisis, the picture is much more heterogeneous, with Hungary and Slovenia achieving external surpluses in addition to public deficits. Estonia, the only Baltic country in the sample, had a clearly articulated finance-led growth model in both subperiods before the crisis, as expected. It transformed to an export-led model afterwards, probably due to its severe internal devaluation program ahead of joining the Eurozone in 2011.

Finally, in English-speaking countries the dominant contribution of private deficits to boosting economic demand is broadly confirmed, especially in Australia and New Zealand, but with variations in the other cases. In the US, the emphasis on boosting private demand in 1995–2000 was in 2001–7 accompanied by large public deficits, as result of G.W. Bush’s tax cuts, and in 2010–16 became an only state-led model. Canada had a balanced model in 1995–2000 and a current account surplus as main demand booster in 2001–7, based on export of minerals and energy. Somewhat surprisingly, the analysis identifies Britain as a balanced growth model in

both pre-crisis periods. This runs counter to its widespread characterization as a liberal, debt-driven economy (e.g. Crouch 2009). In the seven years before the financial crash, the private sector in Britain was on average slightly in surplus (0.57% of GDP), the government deficit was a moderate -2.3% , and the current account was in deficit by -2.5% . This finding supports the call for a more nuanced understanding of the British political economy (Baccaro and Pontusson 2016; Barnes 2016). One reason for the low current account deficit is certainly that the City of London exports many financial services. Ireland also diverges from the typical pattern of English-speaking countries by having had high external surpluses in 1995–2000 and in 2010–16 combined with public deficits. The government facilitated this through tax incentives for multinational corporations. In contrast to the Visegrád countries, these multinationals are more strongly involved in services, hence generating fewer imports to counterbalance the exports.

If we zoom out from the more differentiated country-by-country consideration, we can summarize that in Continental and Nordic Europe as well as in East Asia current account surpluses are the main way of boosting economic growth by profiting from demand abroad. By contrast, Southern and Eastern Europe as well as English-speaking countries tend to boost economic demand through domestic deficits, in Southern and Eastern Europe more strongly through public deficits and in English-speaking countries more strongly through private deficits. In spite of these patterns at the group-level, the analysis has also found notable diversity within each cluster, which is not always adequately accounted for by current CPE theory. While some countries have changed their growth models after the global financial and economic crisis, the mentioned pattern holds by and large both before and after the crisis. The economic recovery is therefore built on an international configuration of growth models that resembles the one that led

to the crisis. This supports the path dependency suggested by Hassel and Palier (this volume) as governments' growth strategies are conditioned by the existing growth regime.

5. The Performance of Growth Models

In this section, I consider how the identified growth models performed in actually achieving growth as well as in terms of employment and investment in education. This is only a first cut, using simple descriptive statistics to examine the association of various growth models with the mentioned economic outcomes. For the interpretation, it is important to keep in mind that some of the growth models comprise institutionally diverse economies and that the outcomes in question are of course affected by a wide range of factors beyond the three demand boosters this chapter focuses on.

Growth rates of economic output are the most obvious outcome of interest in the context of this chapter. In addition, employment rates are generally seen as macro-economically the most important labor market outcome.¹¹ The theoretical section pointed out that productivity can be regarded as crucial for growth in the medium- to long-term. Accordingly, this section looks at the extent to which various growth models are associated with investment in productivity. For simplicity, I focus on investment in education (public and private spending on education as percentage of GDP), which can be seen as the most important productivity investment in knowledge economies. I have averaged the outcome indicators for each country over the

¹¹ The employment rate, measured as share of working-age (15–64) population in civilian employment, is preferred to unemployment, as the unemployment rate is measured in relation to the labor force and hence strongly affected by labor market participation.

respective subperiod and aggregated these further into averages of the countries belonging to each growth model. While I report all results in Table 4.6, the interpretation focuses on the growth models with most country cases and hence less noise in the data.

The finance-led model generated the highest rates of economic growth in all three subperiods—apart from the mixed export-private model, the figures for which are based solely on Norway (1995–2000) and South Korea (1995–2000 and 2001–7). The lowest growth rates were associated with the state-led model in 1995–2000 and 2010–16. However, it is likely that some of the causation runs the other way, as low growth leads to higher public deficits. Indeed, in 2010–16, many countries were still affected by the global financial and economic crisis, and Greece and Portugal (among the state-led economies of the period) had negative average growth. In the pre-crisis years 2001–7, export-led countries had on average the lowest growth rates. This reason may be that much growth in those years was driven by heavy domestic borrowing in other countries. Although the export-led model benefits from the demand generated in other countries, it is plausible that the mediated growth effect is weaker. The standard deviations of economic growth rates were very low for the finance-led and the export-led model (except the latter in 1995–2000), which suggests some homogeneity of countries belonging to the models.

The finance-led model was associated with the highest employment rates in 1995–2000, whereas in the other periods the export-led model was leading in this regard. In the finance-led economies, this was presumably facilitated by deregulated service employment. Among the states with export-led growth the result is driven by the Nordic countries. As is well known, high employment in the Nordic countries is to a large extent the result of public employment and care services that facilitate female employment (Mandel and Semyonov 2006). The high-quality export sector benefits from these public services (through education, family-work reconciliation,

and lower wage pressure) and contributes to the tax basis for them. That Nordic countries and consequently export-led countries were not leading in employment levels in 1995–2000 has to do with the fact that in the late 1990s they still recovered from their own domestic crises. In all three subperiods, employment was lowest in countries with state-led growth models. Again, this can of course be affected by reverse causality as low employment puts pressure on fiscal budgets. The standard deviations in employment rates of the countries with finance-led growth models are the lowest in all periods (aside from the balanced model in 2010–16 with only two cases), pointing again to congruence within this model.

<COMP: INSERT TABLE 4.6 NEAR HERE>

Turning to investment in education, the highest public spending on education can be found in export-led economies. The result is once more driven by the Nordic countries, while the high standard deviation indicates that the Continental European states that make up most of the other countries in this group spend considerably less. Private spending on education is unsurprisingly highest in countries with finance-led growth models. This spending is itself often funded through loans (i.e. private deficits). Standard deviations in education expenditures are again lowest within the finance-led model.

Overall, we can say that the finance-led growth model fares best in terms of economic growth and has the highest private spending on education. The export-led model is strongest in employment and public investment in education, on both counts mostly driven by the Nordic countries. The state-led model tends to deliver the lowest growth and lowest employment. Yet, we need to keep in mind that these are often economies in particular distress, where high public deficits are the result of economic difficulties rather than their causes.

6. Conclusion

In line with the literature on the low-growth era of democratic capitalism (e.g. Streeck 2011), I have shown that most of the covered twenty-eight OECD member states rely on what can be called deficit-driven growth models. However, that literature neglected the cross-national diversity of growth models. Institutionalist scholars, on the other hand, point out cross-national variation in economic models including the growth regimes that underlie the various deficit-driven growth models (e.g. Iversen and Soskice 2012; Hall 2014). Yet, the institutionalist literature often relies on a limited number of exemplary cases. This contribution, by contrast, is the first to provide a systematic and encompassing account of cross-national variation of growth models. To this end, I have developed a new, parsimonious taxonomy that rests on the possible combinations of three ways of boosting demand: private deficits, public deficits, and external surpluses.

The findings confirm that cross-national variation of growth models, and therefore growth regimes, is substantial. It is also broadly consistent with our knowledge of institutional configurations in various clusters of political economies. An export-led model prevailed in Continental Europe, the Nordic countries, and, to some extent, East Asia. Growth in Southern Europe was mostly propped up by domestic deficits, especially public but often mixed with private deficits. The pattern in Eastern Europe is more mixed, but state spending played an important role in most cases. Finance-led growth, i.e. with large private deficits, prevailed in English-speaking countries, with the notable exception of the United Kingdom. While each cluster displays the main demand booster as expected, the analysis found also non-negligible within-cluster variation that needs further attention by CPE research.

The identified cross-national variation supports the notion that the different growth models reinforce each other as current account surpluses of the Northern European and East Asian export-led economies feed into domestic deficits in Southern Europe, Eastern Europe, and English-speaking countries. This interdependence is an important challenge for CPE, which by design starts from a focus on national cases, and calls for a more vibrant dialogue between CPE and International Political Economy (IPE). The demand-side GDP-decomposition approach of this chapter can help to integrate the external economic dimension into an analysis of national growth models.

Apart from tending to within-cluster variation and dialogue with IPE, future research should build on the analysis in this chapter in three ways, as some of the chapters in this volume do already. First, scholars should examine more closely the growth regimes that underlie the identified growth models. This is particularly desirable as different institutional configurations can generate the same growth model, for example an export-led model. Second, more research should be conducted on the growth strategies and politics that reproduce growth regimes. I have pointed to institutional path dependencies, but analyzing political power and economic ideas is similarly pertinent in this regard (Hall, this volume). Third, the composition of demand and exports should be analyzed more closely. For example, Baccaro and Pontusson (2016; and in this volume) as well as Hassel and Palier in this volume show that the different composition of the respective export sectors can shed light on differences between the growth models in Nordic Europe and Continental Europe. This is not picked up by my analysis because it only looks at the general account balance.

From a normative perspective, we can draw three lessons from this chapter. First, given the diversity of growth models, there can be no one-size-fits-all policy recommendations. In

particular, economies relying mostly on external demand and those relying mostly on domestic demand differ fundamentally in their economic mechanics and underlying growth regimes. Beyond this broad distinction, this chapter has theoretically and empirically identified seven different growth models, thus adding to the diversity. Second, it is unreasonable when national leaders in states with export-led growth models point the finger at countries with high domestic deficits. Export-led economies benefit from and fund the demand generated by those domestic deficits. Their account surpluses would be indeed impossible without other countries' account deficits. Besides, continuously lending abroad has its own downsides as the home population basically consumes less than it produces. Third, after the global financial and economic crisis, most countries have reverted to the same growth models that led up to the crisis. Such a pattern is not sustainable in the long run and may well lead to the next major crisis. Counterbalancing this trend will not be easy, as national growth models are based on growth regimes that have emerged over decades and are hard to change. Nevertheless, welfare state reforms can contribute to more domestic spending in export-led countries and lower deficits in the finance-led and state-led growth models, as well as to more sustainable long-term growth through investment in social care and education.

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Table 4.1 A new taxonomy of growth models

Growth model	Private deficit	Public deficit	Current account surplus	Expected cases
Export-led	0	0	1	Continental, Nordic, (East Asia, esp. South Korea)
Finance-led	1	0	0	Baltic, (English- speaking)
State-led	0	1	0	Visegrád
Domestic-led	1	1	0	Southern Europe post-EMU, (English- speaking, esp. US)
Mixed export- state	0	1	1	Southern Europe pre- EMU, (East Asia, esp. Japan)
Mixed export- private	1	0	1	
Balanced	0	0	0	
<i>[impossible]</i>	1	1	1	

Note: “1” indicates presence and “0” absence of a deficit/surplus (understood as sustained and sizable deficit/surplus); in the column with expected cases, ambiguous cases are in brackets.

Table 4.2 Averages of demand boosters 1995–2016 (excluding 2008–9), percentage of GDP

	Private surplus (+)/deficit (-)	Public surplus (+)/deficit (-)	Current account surplus (+)/deficit (-)
Australia	-3.51	-0.86	-4.38
Austria	3.30	-2.62	0.78
Belgium	5.12	-1.99	2.52
Canada	-0.08	-0.57	-0.60
Czech Republic	0.92	-3.53	-2.86
Denmark	3.90	0.14	3.86
Estonia	-5.69	0.58	-5.90
Finland	2.73	0.45	3.03
France	3.27	-3.53	0.46
Germany	5.56	-2.11	3.43
Greece	1.66	-6.96	-6.04
Hungary	2.55	-5.19	-3.32
Ireland	2.00	-2.49	0.24
Italy	3.73	-3.41	0.38
Japan	8.58	-5.67	2.65
Korea	0.56	1.89	2.73
Netherlands	8.24	-1.82	6.44

New Zealand	-4.53	1.06	-3.81
Norway	0.07	9.96	10.28
Poland	2.00	-4.07	-3.40
Portugal	0.33	-4.96	-5.91
Slovak Republic	0.72	-4.91	-4.90
Slovenia	3.28	-3.77	0.18
Spain	0.53	-3.50	-2.86
Sweden	5.18	-0.16	5.06
Switzerland	10.13	-0.48	10.41
United Kingdom	1.24	-3.43	-2.68
United States	1.54	-4.36	-3.25
<i>Median</i>	<i>2.00</i>	<i>-2.55</i>	<i>0.21</i>
<i>S.D.</i>	<i>3.50</i>	<i>3.18</i>	<i>4.47</i>

Source: OECD.

Note: Where OECD data for current account balances was missing (some countries at the beginning of the period), they were supplemented with UNCTAD data. A few country averages of private deficits are based on fewer years owing to data availability: Hungary (only 2016 missing), New Zealand (1995–97 and 2016 missing), and Spain (1995–98 missing). Public deficit data for Japan was missing for 1995–2004 and was imputed, using the accountancy identity: public net lending = current account balance—private net lending.

Table 4.3 Calibration of membership scores

Original data	Set for fuzzy-set analysis	Lower bound (for membership scores of 0)	Crossover point (distinguishing between above and below 0.5)	Upper bound (for membership scores of 1)
Current account surplus (+)/deficit (-), % GDP	Economies with lasting and large current account surplus	-4	0	4
Public surplus (+)/deficit (-), % GDP	Economies with lasting and large public deficit	1	-3	-5
Private surplus (+)/deficit (-), % GDP	Economies with lasting and large private deficit	4	0	-4

Table 4.4 Incidence of growth models over time, twenty-eight OECD countries

Growth model	1995–2000	2001–7	2010–13
Export-led	8	11	9
Finance-led	4	6	3
State-led	8	3	9
Domestic-led	2	5	0
Mixed export-state	2	1	5
Mixed export-private	2	1	0
Balanced	2	1	2

Table 4.5 Growth models 1995–2016

Country	1995–2000	2001–7	2010–16
<i>Continental</i>			
Austria	State-led (0.67)	Export-led (0.65)	Export-led (0.62)
Belgium	Export-led (0.68)	Export-led (0.86)	State-led (0.52)
France	Export-led (0.51)	Export-led (0.51)	State-led (0.66)
Germany	State-led (0.58)	Export-led (0.53)	Export-led (0.87)
Netherlands	Export-led (0.73)	Export-led (0.82)	Export-led (0.55)
Switzerland	Export-led (0.76)	Export-led (0.88)	Export-led (0.92)
<i>Nordic</i>			
Denmark	Export-led (0.66)	Export-led (0.61)	Export-led (0.76)
Finland	Export-led (0.9)	Export-led (0.81)	Balanced (0.63)

Norway	Mixed export-private (0.66)	Export-led (0.67)	Export-led (0.51)
Sweden	Export-led (0.8)	Export-led (0.95)	Export-led (0.88)
<hr/> <i>East Asia</i>			
Japan	Mixed export-state (0.85)	Mixed export-state (0.93)	Mixed export-state (0.84)
Korea	Mixed export-private (0.66)	Mixed export-private (0.66)	Export-led (0.96)
<hr/> <i>Southern Europe</i>			
Greece	State-led (0.88)	Domestic-led (0.87)	State-led (0.96)
Italy	Mixed export-state (0.82)	State-led (0.57)	Mixed export-state (0.51)
Portugal	Domestic-led (0.65)	Domestic-led (0.92)	State-led (0.84)
Spain	Domestic-led (0.72)	Finance-led (0.94)	State-led (0.54)
<hr/> <i>Central and Eastern Europe</i>			
Czech Republic	State-led (0.72)	State-led (0.52)	Balanced (0.65)
Hungary	State-led (0.56)	Domestic-led (0.56)	Mixed export-state (0.51)
Poland	State-led (0.68)	State-led (0.65)	State-led (0.84)
Slovak Republic	State-led (0.79)	Domestic-led (0.82)	State-led (0.72)
Slovenia	State-led (0.65)	Finance-led (0.57)	Mixed export-state (0.92)
Estonia	Finance-led (0.89)	Finance-led (0.97)	Export-led (0.65)

English-speaking

United States	Finance-led (0.66)	Domestic-led (0.55)	State-led (0.86)
Australia	Finance-led (0.88)	Finance-led (0.95)	Finance-led (0.51)
New Zealand	Finance-led (0.95)	Finance-led (0.97)	Finance-led (0.58)
Canada	Balanced (0.52)	Export-led (0.64)	Finance-led (0.69)
United Kingdom	Balanced (0.58)	Balanced (0.6)	State-led (0.87)
Ireland	Export-led (0.55)	Finance-led (0.84)	Mixed export-state (0.78)

Note: The names of the growth models are defined in Table 4.1 above. The numbers in brackets are fuzzy-set scores. As explained in the text, the years 2008 and 2009 are omitted deliberately.

Table 4.6 Performance of growth models

1995–2000	ec. growth		employment		
	N	mean	SD	mean	SD
Export-led	8	4.09	2.33	66.97	7.56
Finance-led	4	4.27	1.15	68.84	3.94
State-led	8	3.40	1.15	61.27	5.43
Domestic-led	2	3.99	0.17	58.58	9.05
Mixed export-state	2	1.77	0.54	60.76	12.12
Mixed export-private	2	5.01	1.83	69.27	10.47
Balanced	2	3.63	0.24	69.79	1.43
All cases	28	3.78	1.57	64.93	7.06

2001–7	ec. growth		employment		govt educ. exp.		priv. educ. exp.		
	N	mean	SD	mean	SD	mean	SD	mean	SD
Export-led	11	2.24	0.53	70.61	5.68				
Finance-led	6	4.72	1.62	67.59	4.15				
State-led	3	3.28	1.85	58.46	6.10				
Domestic-led	5	3.55	1.93	62.70	6.75				
Mixed export-state	1	1.28		69.14					
Mixed export-private	1	4.91		63.47					
Balanced	1	2.75		72.61					
All cases	28	3.20	3.20	67.01	6.58				
2010–16	ec. growth		employment		govt educ. exp.		priv. educ. exp.		
	N	mean	SD	mean	SD	mean	SD	mean	SD
Export-led	9	2.11	0.94	72.58	4.10	5.85	1.30	0.67	0.64
Finance-led	3	2.54	0.35	71.11	2.99	4.94	0.64	1.96	0.13
State-led	9	1.04	2.04	62.35	5.54	5.07	0.78	0.98	0.67
Domestic-led	0								
Mixed export-state	5	2.13	2.54	62.99	5.84	4.40	0.67	0.76	0.51
Mixed export-private	0								
Balanced	2	1.33	0.80	68.51	0.69	5.47	1.83	0.39	0.24
All cases	28	1.76	1.68	67.29	6.58	5.23	1.12	0.87	0.65

Source: OECD.

Note: “ec. growth” are annual rates of economic growth averaged over the period and across countries;

SD are standard deviations and measure the variation of period averages across countries;

“employment” are employment rates as percentage of population aged 15–64; “govt educ. exp.” is general government spending on all public and private education institutions covering all International Standard Classification of Education levels as percentage of GDP; “priv. educ. exp.” is the same spending but from the non-educational private sector (i.e., households and private organizations that are not themselves educational institutions). The education spending data is available only for limited years. The data reported here is based on 2013 and 2014, for some countries also 2010–12. No education spending data was available for Canada and Greece; for Denmark only 2012 public spending; for Switzerland only public spending; and for the US only 2010 and 2011. The countries belonging to each growth model can be found in Table 4.5.