At the Edge of Dependency: Unraveling the Global Peripheral Growth Models

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Abstract (237 wds)

Building on the Growth Driver Approach, this article rejects the application of the Growth Contribution Approach and Sraffian Supermultiplier Approach in peripheral economies. This article echoes the Post Keynesian-Structuralist Synthesis in suggesting the world economy is characterized by core-periphery structure and the peripheral growth models are deeply integrated into this structure. To classify peripheral growth models, this article first refines the framework of Stockhammer (2023) into one which contains seven growth drivers, with a division between core-type and peripheral-type drivers. Then, it collects data of more than 100 peripheral economies from the 1980s to 2010s to conduct regression analysis. Deriving from a fixed-effect regression with instrumental variables, private credit, public expenditure, commodity price and FDI net flow are found to be the four main growth drivers across peripheral economies. However, defined by the growth contribution of growth drivers, the majority of peripheral economies are dominated by the Debt-driven, State-led and FDI-driven growth models, while the share of the latter two have been increasing overtime. Evidence suggests that the Global Financial Crisis has changed the pattern of growth models as the diversity of growth models declines across all types of growth models and the average economic growth rate drops as well. Regional-level political economy could have shaped the divergent pathways of peripheral growth models after the crisis and this paper calls for further attention paid to this as well as the political foundation of diversity of growth models.

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1. Introduction

Growth Model Approach (GMA), as the third generation of Comparative Political Economy (CPE), has mainly discussed the export-led versus debt-led/finance-led growth models in the core economy, which has shifted the attention of CPE study from micro-based supply-side analysis to macro-based demand-side analysis (Bacarro & Pontusson, 2016; Hein et al., 2021; Kohler & Stockhammer, 2022). The Global Financial Crisis (GFC), as a breaking point, has caused changes in growth models not just in the core but also in peripheral economies. Where data is available, existing studies use the established methodology to identify growth models in peripheral economies, in which not many commonalities have been found among these economies (Akcay et al., 2022; Jungmann, 2023). Although some dependent nature of the peripheral growth model has been discussed (Mertens et al., 2022; Schedelik et al., 2023), there are two major gaps in the current literature. First, there needs to be a synthesized theoretical framework of peripheral growth models, which allows multivariate regression analysis. As I will argue in the paper, the existing literature has downplayed the role of the Growth Driver Approach and insisted on using the Growth Contribution Approach and the Sraffian Supermultiplier Approach, which have intrinsic weaknesses. The analysis of growth driver would be much informative if multivariate regression is run, and growth contribution of each driver is compared, as shown by Stockhammer & Otero (2023). Second, when it talks about peripheral or developing economies, literature mostly means medium to large-size economies, or emerging market economies (EMEs). While it might serve as a good starting point but without including more than half of the world's smallest economies, there could not be a comprehensive and systemic level understanding of the interdependency nature of both the core and the peripheral growth models. This paper fills these two gaps.

This paper has two major findings. First, by running fixed effect regressions with instrumental variables, it finds that from 1992 to 2019, across 69 peripheral economies, private credit, public expenditure, commodity price, and FDI net flow have been the main growth drivers. Second, it classified peripheral growth models based on the magnitude of growth contributions of growth drivers. Evidence suggests that most peripheral economies have been dominated by Debt-driven, State-led and FDI-driven growth models, while the share of the latter two growth models have been increasing overtime. The number of commodity-driven growth models is not as large as one would expect. The average economic growth rates of peripheral economies certainly dropped in the 2010s but was driven by the lack of diversity of growth models.

This paper has two major contributions. First, it modifies the framework of Stockhammer (2023) so that one can conduct regression analysis for a complete set of growth drivers, with institutional background of these growth drivers being extensively discussed by previous literature. Second, it enlarges the range of GM discussions to more than 100 peripheral economies (69 used in the IV regression) and reconfirms the existence of core-periphery features in a wider range of peripheral growth models.

This paper is organized as follows: Section 2 reviews the emergence of the Growth Model Perspective out of the VoC-dominated Comparative Political Economy. Section 3 contrasts the Growth Driver Approach with the other approaches. Section 4 discusses the debate around whether the demand formation process in peripheral economies is different from the core economies. Section 5 puts forward the analytical framework of peripheral growth models. Section 6 presents the construction of an empirical database. Section 7 presents the regression analysis and section 8 classifies peripheral growth models and analyzes its features. The last section concludes.

2. The Emergence of Growth Model as A Generation of CPE

It has been more than 20 years since Hall & Soskice (2001) first coined the term "Varieties of Capitalism (VoC)" as the core theme of the second-generation Comparative Political Economy. The next 15 years, at least, saw the dominance of the VoC research in CPE. That has reflected, according to Schwartz & Tranøy (2019), a long trend shifts of focus in CPE from the macroeconomic-based demand-side analysis to the microeconomic-based supply-side analysis, dated back to the time of Shonfield (1965). Hall & Soskice took a firm-centric view on capitalism and pointed out five key aspects of capitalism, namely, industrial relations, vocational training and education, corporate governance, inter-firm relations and relations with employees. Following their analysis, here come two types of capitalism: Liberal Market Economies (LME; e.g., the UK) and Coordinated Market Economies (CME; e.g., Germany and Scandinavian countries). Capitalist economic and institutional reproduction is sustained through market-oriented supply and demand in the LME, and non-market coordination between multiple actors in the CME, while each of the two produces institutional comparative advantage and thus capitalism ends up with two stable pareto-efficient equilibria. The former is deemed to specialize in high-tech and service sectors while the latter focuses on manufacturing. Adding to this, Hope & Soskice (2016) proposed the New-Keynesian three equation model to be the economic foundation of the VoC theory. The three-equation model is the short version of the neoclassical synthesis textbook theory, which includes a demand-driven short-run output, a short-run functioning Phillips Curve with NAIRU

taken as given, and an inflation-targeting, therefore, accommodating interest rate. Stockhammer (2021) correctly spotted that the VoC and New-Keynesian theories share the views that actual demand will adjust to the institutional supply-side equilibrium in the long-run, which means demand plays no role beyond short-run, and financial instability has been ruled out. For this reason, Hope & Soskice have been correct in arguing NK as a foundation of the VoC.

However, the VoC theory failed to predict the Global Financial Crisis (GFC) and explain the divergent economic performance (a failure to generate comparative advantage) across advanced economies after the GFC. Baccaro & Pontusson (2016) borrowed the concept of "Growth Model" and "Functional Income Distribution" from post-Keynesian economics, particularly post-Kaleckian school (Bhaduri & Marglin, 1990; Lavoie & Stockhammer, 2013), to argue that there has been a secular decline of wage share across advanced economies for the last four decades and a switch of growth model from "wage-led" to "profit-led". For them, the GFC is generated by the growth models before the crisis, which are intrinsically unstable and fragile. Therefore, they promote a shift of attention in CPE from micro-based supply-side analysis back to the macro-based demand-side analysis and put growth back to the centre of the political economy research. In the empirical analysis, they classified the pre-GFC advanced economies into export-led (Germany), debt-driven consumption-led (the UK), mixed (Sweden), and failed growth models (Italy). The export-led and the consumption-led growth models are complementary to each other because the export-led economies rely on the demand from the consumption-led economies. However, due to the financial instability in debt-driven economies, the consumption-led model will eventually lead to financial crisis and the export-led model will fall when the foreign demand drops significantly.

Soon, their proposal attracted many political economists as well as post-Keynesian economists to join in the debate, forming a group of dissent scholars, which will later be called the third-generation CPE (i.e., growth model) perspective. Following Baccaro & Pontusson, some scholars tried to make contributions to the conceptual building blocks of the growth model approach. Baccaro & Howell (2017), through the examples of Germany and Sweden, attributes pro-labour industrial relations to be the cornerstone of Fordist wage-led growth model. The liberalization of industrial relations, not just in LME but also in CME, has buried the old Fordist model and turned these economies to two different pathways with unstable growth and secular stagnation. In addition to this, Howell (2019) argues that the political foundation of the unstable growth models involves the intervention of the state, especially in the neoliberal era. In contrast to the image of a retreated state in industrial relation deregulation, the state has become more active in shaping the institutions into a liberal one, thus he calls for

contribution to a fuller state theory in growth model. This discussion of the political foundation has been enriched by Baccaro & Pontusson (2019) in their fruitful discussion about Gramscian Social Bloc theory. A growth model is thus supported by a dominant social bloc within a country, and this social bloc includes actors across classes with a hierarchical structure, with some political parties at the top managing the whole social bloc under a nation-wide dominating ideology. These actors are not only domestic players but also international forces like transnational companies, of which their intra-firm trade could account for a large share of national exports and by whose decision could shape the interdependencies between growth models (Kaczmarczyk, 2020)[2].

There is also another group of scholars using this newly developed growth model concept to analyze, in combination with country-specific conditions, national political economy. These include knowledge economy and politics of productivity in the UK (Clift & McDaniel, 2022; Coulter, 2018), housing and construction sectors in multiple countries (Bohle, 2018; Johnston & Regan, 2017; Kohl & Spielau, 2022; Kohler et al., 2023; Reisenbichler & Wiedemann, 2022; Wood & Stockhammer, 2023), Germany and Northern European economies (Baccaro & Benassi, 2017; Baccaro & Höpner, 2022; Barredo & Buendia, 2024; Braun & Deeg, 2020; Erixon & Pontusson, 2022; Hassel, 2017; Höpner, 2019), and failed or fluctuating European peripheral growth models (Baccaro & Bulfone, 2022; Ban & AdĂscĂliȚei, 2022; Bondy et al., 2024; Bramucci, 2024; Dellepiane-Avellaneda et al., 2022; Di Carlo et al., 2024; Di Carlo & Molina, 2024; Elteto & Medve-Balint, 2023; Regan & Brazys, 2017; Silva & Lopes, 2021; Stockhammer & Otero, 2023). While the research has successfully extended growth model studies to more countries and time periods, different methods for naming these models – though reasonable in individual cases – create coordination challenges. This inconsistency at the broader level limits our ability to systematically compare findings across nations. There is, however, a group of literature addressing this methodological issue but with its own limitations as well. As we shall see in the following sections, some widely adopted frameworks exhibit persistent shortcomings. Yet alternative methodology that avoids these pitfalls remains understudied, signaling a critical gap requiring scholarly attention.

3. The Debate Around Methodology in core economies

3.1 The Growth Contribution Approach and the Sraffian Supermultiplier Approach

Current literature has put forward three methodologies to identify growth models. Two of them have a high level of similarity so we introduce these two in one sub-section. The first one is the Growth

[2] For detailed discussion on Gramscian Social Bloc and Growth Model, see May et al. (2024).

Contribution Approach (GCA)[3], which decomposes economic growth rate into contributions of separate aggregate demand components. The starting point of this methodology is the aggregate demand equation:

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

Where Y is the aggregate demand or the total expenditure, C is private consumption, I is the investment, G is the public consumption, X is export and M is import (X-M is thus net export). The growth contribution of private consumption is, for example, given by the formula below:

$$Contribution_{C,t} = \frac{C_t - C_{t-1}}{Y_t - Y_{t-1}} * \frac{Y_t - Y_{t-1}}{Y_{t-1}} = \frac{C_t - C_{t-1}}{Y_{t-1}}$$

which tells us the part of economic growth rate that can be attributed to the growth or decline of private consumption. For all other components, the calculation is similar. The idea of this methodology is by calculating the growth contributions of all demand components, one would be able to tell the pattern of how economic growth is financed. This approach is sometimes used in combination with the sectoral financial balance approach, which is based on the following formula:

$$(I - S) + (G - T) + (X - M) = 0$$

Where I is investment, S is savings, G is government spending, T is tax revenue, X is exports and M is imports. The formula means that the balances of the private sector (I-S), the public sector (G-T) and the external sector (X-M) must balance out to equate the lending and borrowing between sectors. Hein & Mundt (2013) used both methods to analyze the demand regimes of G20 economies before the Global Financial Crisis, the reason for the crisis and a potential wage-led recovery. Detzer & Hein (2016) classified Germany in the 2000s as export-led mercantilist growth model based on the growth contribution and sectoral balance of the external sector. Hein et al. (2021) synthesized classifications of capitalisms based on these approaches with those based on the welfare models for a systematic understanding of growth models. They correctly criticized Baccaro and Pontusson (2016) for confusing the concepts of wage-led and profit-led growth in Kaleckian growth models (Bhaduri & Marglin, 1990) with pro-labor and pro-capital policies (Lavoie & Stockhammer, 2013), which depict structural relationships between functional income distribution and growth, and real changes in functional income distribution, respectively. They argue that export-led growth and debt-driven consumption-led growth are not incompatible with wage-led growth. As a solution, they classify "demand and growth regimes under financialization" into four types: Export-led mercantilist (ELM), Weakly export-led (WEL), Domestic demand-led (DDL), and Debt-led private demand boom (DLPD). Each regime requires specific structures of the financing positions of certain sectors and the growth contributions of certain demand

[3] In Kohler & Stockhammer (2022), they call it growth decomposition approach. In this paper, we will stick to the growth contribution approach, but readers should be aware that these two terms can be used interchangeably.

components. Drawing upon Hay & Wincott (2012), welfare models include Liberal, Corporative, Scandinavian, Central and Eastern European, and Mediterranean models. The combination of these two concepts leads to a 5*4 table, which can explain the model shifts before and after the Global Financial Crisis. As an extension of this line of thought, Hein & Martschin (2021) borrowed the term "Macroeconomic Policy Regime" from post-Keynesian economics (Hein & Stockhammer, 2010) to explain changes in growth models. They argue that a mix of fiscal, monetary, wage/income, and open economy policies supports the existence of the four types of growth models identified by Hein et al. (2021). They selected indicators to represent these policies and conducted empirical studies on Germany, France, Italy, and Spain, which validated their proposal. Baccaro & Hadziabdic (2023) have used an import-adjusted version of GCA to decompose imports driven by different demand components. After subtracting import contents from consumption, investment, public spending and exports, they found that across 66 core and peripheral economies, most are export-led and domestic demand-led.

The second methodology is the Sraffian Supermultiplier Approach (SSM) invented by Serrano (1995a, 1995b). First, we need to split aggregate demand into autonomous components and induced components. The autonomous components are exogenous to aggregate demand, which in the long-term determines the economic growth rate (or rate of capital accumulation), while the induced components are endogenous to demand, therefore, these components can only affect the growth rate through changes in the sensitivities of these components to changes in demand[4]. In Morlin et al. (2022), public expenditure, exports, household residential investment, and debt-financed consumption are considered autonomous components (the last is dropped in empirical studies). The direct implication of this division is that, when empirically identifying growth models, growth should be attributed to the contributions of autonomous components, plus the growth rates of the propensity to consume, the propensity to invest, and the complement of the import's share on aggregate demand. There is an overall supermultiplier effect on the growth performance of each component, meaning it is not just the growth rates of those three induced-related variables that matter to growth, but also their levels, which in combination become the supermultiplier. They conducted empirical tests in the USA, Japan, Sweden, and Germany, finding that government expenditures, exports, and debt-financed private spending drive growth in developed countries. They argue for greater attention to public expenditure, which has been neglected for a long time. Additionally, the impact of changes in wage share can be

[4] To note, SSM is essentially an economic model that was not designed to address political economic concern. In most cases, it would have a clear short-run versus long-run modelling feature and for more detail, see either Hein (2023, Chapter 7) or a special issue for SSM on *Review of Political Economy (Volume 36, Issue 5)*.

studied through its effect on the propensity to consume. Further application of this method in core economies was conducted by Labat-Moles & Summa (2024) who had slightly different versions of autonomous demand compared with Morlin et al. (2022). They split public expenditures into public entities' demand, government wages and transfer payments, while also adding autonomous investment into autonomous private expenditures. After applying it to the Spanish Economy from 1998 to 2019, they echoed Morlin et al. (2022) in finding that public demand and exports are driving growth, and the real estate boom has had direct effect on growth before the GFC as well as indirect effect through increasing public revenues. Woodgate et al. (2023) had an insightful reflection on previous SSM works in saying that the traditional SSM growth decomposition has not distinguished between the "active" and the "passive" autonomous components. By active and passive, they are referring to the situation in which one component could drive another component. The example they present is linked to the Spanish study, in which public spending is driven by real estate boom and bust, but because public spending has had a large share in the aggregate demand, the contribution of a small increase in public spending would be greater than the contribution of a large increase in residential investment or debt-led consumption. However, Woodgate et al. (2023) tried to address this issue through engaging in short-run and long-run economic modelling, in which short-run disequilibrium moves towards long-run equilibrium between the two components, linked by policy rules. Adopting this methodology runs a danger of mixing the CPE and the economic concepts of time, with the former being the time scope in which the policy/institutions and social blocs remain stable, and the latter being the hypothetical time defined by the stability of one or two variables.

These two approaches have both shared and unique limitations on interpreting growth models. The common limitation is that the two approaches have both decomposed economic growth based on demand components, which would sum up to the total demand. Although this methodology makes it easy to understand the source of demand and to classify growth models (if one adopts the "demand component-led growth model" language), it has been unable to explain the driving factors of these source of demand (Kohler & Stockhammer, 2022). The GMA differs from pure economics research in terms of the political foundation of this school of thought (Baccaro & Pontusson, 2016; 2019), and the methodology of identifying growth models from the economic side should facilitate the conversation between the research on growth model and its political foundations. Clearly, the GCA and the SSM have not offered much help from that perspective.

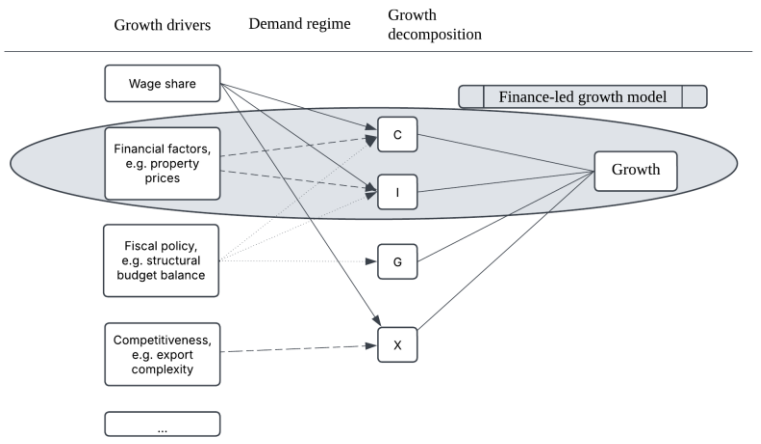
The limitations of the GCA, as Kohler & Stockhammer (2022) suggest, involve both theoretical and methodological concerns. Theoretically, the GCA has downplayed the role of finance in growth model

and is therefore unable to explain the source of instability of debt-driven consumption-led growth model. The crucial endogenous financial instability is absent from the existing framework (Stockhammer, 2021). Methodologically, the contribution of net exports to growth could largely be driven by imports, which are endogenous to domestic demand, rather than exports. The framework of Hein et al. (2021) effectively classify the economies which have experienced real estate market bust and fiscal austerity as weakly export-led growth model while the price and non-price export competitiveness of these economies are not really driving the growth. Note that this latter criticism could be addressed by the import-adjusted decomposition of Baccaro & Hadziabdic (2023).

The limitation of the SSM is the inconsistent treatment of autonomous components across studies, making it difficult to determine which components are truly exogenous. As argued by Nikiforos (2018) and Skott (2019) none of these components may be truly exogenous. Furthermore, applying this approach to peripheral economies is challenging due to difficulties of acquiring data on residential investment, debt-financed consumption and detailed public spending components.

3.2 The Growth Driver Approach and the Growth Contribution of Growth Drivers

Figure 1: Growth drivers, demand regime and growth decomposition



Source: Stockhammer & Kohler (2023)

The third methodology is the Growth Driver Approach (GDA) initiated by Kohler & Stockhammer (2022). To incorporate the ideas of financial cycles, fiscal policy, and non-price competitiveness into the Growth Model Approach, they argue for identifying exogenous factors that impact demand components (i.e., growth drivers) through regression analysis. As shown in Figure 1, the left-hand side boxes are growth

drivers, which are exogenous to economic growth. Each of the growth drivers would have impacts on demand components through different mechanisms, which is called the demand regime. On the right-hand side, when all these demand components are summed up, it equals economic growth, which is equivalent to the Growth Contribution Approach. An illustration of growth model, in this case, is presented in Figure 1. If one starts from the financial factors, such as property prices, it could have an impact on consumption through mortgage-backed household consumption credit, and on investment through expected returns on residential investment. The net effect of the two would lead to changes in growth, and we call this type of economy "the finance-led growth model".

Their empirical evidence suggests no overall trend of shifting towards an export-led model across OECD countries after the GFC. While some countries compensated for growth rates with expansionary fiscal policy (English-speaking countries), others adopted austerity measures and experienced stagnation (Southern Europe). Focusing on non-price competitiveness helped stabilize the economic performance of Eastern European countries. They conclude by questioning the usefulness of the concepts of debt-led versus export-led for core economies in the post-GFC era and urge future studies to identify more growth drivers. To further enrich this framework, Stockhammer & Otero (2023) conducted a similar study on four Southern European countries plus France from the mid-1990s. They tested six drivers (the above four plus capital inflow and R&D) and found that house prices and fiscal policy contributed strongly to growth in these economies, proving they are finance-led (or implicitly, state-led) rather than export-led.

The methodologies differ slightly between Kohler & Stockhammer (2022) and Stockhammer & Otero (2023). The former divides the sample period into pre- and post-GFC and runs two regressions with split samples, while the latter conducts a panel regression and uses the coefficients of significant growth drivers to calculate their contributions to economic growth in specific countries and periods. It would be clearer if we used mathematical expressions to explain how this contribution is calculated. Suppose there are two countries, A and B, and two significant growth drivers functioning for both countries, I and II. We further assume that the sensitivity of economic growth to changes in growth drivers remains the same across countries and in periods. Hence, we name the sensitivity as β_i, where i=I, II. What is different across countries, time, and growth drivers is the real changes in different growth drivers, which we coin it as $x_{i,j,t}$, where i=I, II; j=A, B; and t=1, 2, …, N. According to the definition of growth drivers, in the first period, the economic growth rate of Country A is:

$$y_{A,1} = \beta_I x_{I,A,1} + \beta_{II} x_{II,A,1} \quad (1)$$

Where $y_{j,t}$ stands for the economic growth rate of Country j in Period t. In the same logic, the growth rate of Country B is:

$$y_{B,1} = \beta_I x_{I,B,1} + \beta_{II} x_{II,B,1} \quad (2)$$

The two countries would have the same type of growth models if the share of growth contribution of growth driver I in both countries is similar, meaning:

$$\frac{\beta_I x_{I,A,1}}{y_{A,1}} \approx \frac{\beta_I x_{I,B,1}}{y_{B,1}} \quad (3)$$

This does not suggest that the growth rates of the two countries are the same. There can certainly be two countries following the same type of growth model but with divergent growth rates. Therefore, it is the relative importance rather than the absolute level of growth driver contribution that is used to determine the classification of growth models.

The benefit of adopting this method is that it is easier to identify the institutions and social blocs backing up each growth driver than those backing up the demand components. For example, Kohler et al. (2023) find that private homeownership and mortgage-credit encouraging institutions can explain differences in the intensity of housing cycles and referring back to Kohler & Stockhammer (2022), housing cycles is an important driver of financial boom-bust cycle across centre economies. Yet there is also a potential risk of conducting the growth driver regression. If the selected sample contains countries with heterogenous productive and financial structures, then it is less likely that one can find a growth driver to explain the variation between the sample countries, and one would conclude that there is no valid growth model across sample countries. To avoid that, there needs to be a thorough theoretical discussion of the selection of growth drivers and whether the sample countries share an acceptable level of similarity in terms of economic structure. As we shall see in the following section, this theoretical discussion will be vital when it comes to identifying peripheral growth models.

4. Expanding the debate: alternative demand formation

While making an effort to classify the time frame of growth model research, Stockhammer & Otero (forthcoming) also put forward four criteria for a valid growth model: 1. Stable growth trend over one or a few business cycles, 2. Stable demand formation mechanism, 3. Stable institutional and policy regime, and 4. Stable social blocs supporting the growth model. Now that much literature is moving beyond the scope of core economies, we also need to refer to the criteria in the context of peripheral economies. While the last two conditions are on the political side, which we leave for future research to discuss, the first condition would in general be applicable to peripheral economies, despite the necessity to change the parameters when identifying growth episodes, considering that the growth

rate could be higher, and the consistent growth performance lasts shorter in peripheral economies. What becomes the centre of debate in literature is the second condition. Although there is broad agreement that the demand formation process should be stable in a period, there has not been concrete agreement on whether the formation mechanism should differ between core and peripheral economies.

4.1 Unchanged demand formation

On one hand, there are some works which adopt the same demand formation mechanism in peripheral economies as in core economies. Interestingly, most of these studies have a strong empirical focus with only one paper that was trying to make methodological contribution (Baccaro & Hadziabdic, 2023). As explained in the previous section, they initiated the import-adjusted growth decomposition method, which ends up with similar types of growth models as traditional GCA, namely, domestic demand-led, balanced, export-led and strongly export-led growth models. As the sample includes 66 economies, peripheral economies covered in this study originate from Eastern Europe to Southeast Asia, and from Africa to Latin America. As I would directly quote from them, "*our methodology has the advantage of not requiring the acceptance of assumptions about the underlying structure of the economy……*" (ibid., p.1346). Their findings suggest for most peripheral economies, the relative contribution of exports compared to domestic demand has declined after the crisis, but Eastern European economies have moved towards a more export-oriented growth model.

Among those who kept adopting the GCA in peripheral economies, Akçay et al. (2022) have tested the concept in a wider range of countries. They reviewed the findings of Hein et al. (2021) and classified eight emerging economies into the suggested four types of growth models. They found that, out of the eight economies, only Russia and Mexico became more export-led after the GFC, while the other six (South Africa, Turkey, India, Brazil, Argentina, and China) became less export-led. After presenting evidence on the financialization and distribution trends of these sample economies, they concluded that the main reasons behind this shift (in contrast to the shift towards export-led growth in developed economies) include improved income distribution in emerging markets, which boosts domestic demand, and expansionary monetary policy in the Global North, which deepened subordinated financialization and thereby debt-led growth in emerging markets. They view these shifts in growth models as unstable and subject to further changes in global economic conditions. Apart from their paper, other studies engage in small-N analysis and have a stronger political economic focus rather than on the economic methodology. These include Ban & Adascalitei (2020) on Central and Southeastern European Periphery, Bohle & Regan (2021) on Ireland and Hungary, Güngen (2022) on

Turkey, Akçay & Jungmann (2023) on Turkey and Poland, Vukov (2023) on Southeastern Europe, Güngen & Akçay (2024) on Turkey and Egypt, Kühnast (2024) on Hungary and Poland, Kamyshnykova (2024) on Ukraine and Poland, and Ianni (2024) on Argentina. We are not going into details of these works, but because these works are concerned with explaining the institutional and social bloc differences between the peripheral and the core framework, it is understandable that they prefer to take a shortcut on the economic side.

There are two papers that have extended the SSM to peripheral economies, which are Passos & Morlin (2022) and Campana et al. (2024). The former treated export and government expenditures as autonomous components and propensity to invest, consume and domestic content of demand as the supermultiplier components. They first presented the average contribution of demand components in five Latin American countries from 1996 to 2018. Evidence suggests all of them show a strongly export-led structure. While Argentina, Bolivia and Brazil also rely on government expenditure, it contributes less to growth in Chile and Mexico. However, when they split the sample period into four sub-periods, the data shows the period after 2014 have experienced stagnation in all countries apart from Mexico. The commodity price drops after 2014 naturally led to fall in export contribution but since Mexico has less commodity export and more manufacturing exports, its export did not fall that much. Their findings suggest Argentina and Brazil were mixed state-export led during 1996-2013 and turned into stagnation after 2014. Bolivia, Chile and Mexico were export-led during 1996-2013 but the first two countries became state-led, while the last one remained export-led.

Campana et al. (2024) used mixed methodologies to identify growth models in BRICs, in the periods 2001-2010 and 2011-2019. First, they applied the GCA and sectoral financial balance approach and found that Brazil moved from DDL to WEL, Russia from WEL to ELM, China from ELM to WEL and India maintained a DDL regime. Then, they used the SSM approach but unlike Passos & Morlin (2022), they treated public consumption, general government investment, exports, residential investment and consumption out of credit all as autonomous components. Their findings from the SSM generally echo their findings from the GCA and based on the structural changes in SSM growth contributions, they provided political economic and policy driven reasons of the regime changes. In general, there is a fall in foreign demand after the GFC due to stagnation in the core countries. Brazil and Russia relied on commodity exports and there was decline in non-price competitiveness and volatile exchange rates, thus the exports have fallen much after the crisis. In contrast, India and China relied on manufacturing exports with improved technology and steady exchange rates. Also, the latter two were more willing to use public demand to stabilize growth compared to the first two.

To summarize, this group of literature is either overconfident on the explanatory power of the established methodology, which is based on the core economy's experience, on explaining peripheral growth, or too focused on the institutions and social blocs of the periphery without questioning the validity of the economic methods. I have no intention of denying the possibility of being enlightened by the intuition of the results of GCA or SSM. However, the methodologies themselves have the limitation on only focusing on the demand components, which makes the accusation over the causality from economic structure/international interdependency to growth contribution, stay at a narrative, or at most a descriptive level.

4.2 Alternative demand formation

It is not surprising that amongst those who adopt alternative demand formation process for peripheral economies, most of them have had a strong theoretical focus in the paper. Some of the works aim to incorporate the core-periphery framework into GMA research, while others analyze the impact of certain peripheral growth drivers on peripheral growth models. Overall, they emphasize that the demand formation in peripheral economies is intrinsically different from that in the core economies and are cyclically driven by the dynamics in the core.

The former literature has always been stressing that the unequal global distribution of power between countries have implications for both core and peripheral growth models (Stallings, 2024). On the side of trade and production, the global capitalisms have not just been integrated in market access but also in production network. The role of multinational companies (MNCs) has become important in shaping national growth models (Kaczmarczyk, 2020). Since the outsourcing of some parts of or the whole value chain from core to peripheral economies successfully reduces cost of production, the decision of one country (say Germany) to outsource, has driven other countries to follow (say France and Italy). Under this background, the key to switch growth models in the periphery in order to have a sustainable growth trajectory, as Kaczmarczyk has observed, is to ensure that the international capital transfers enough technology and knowledge to nurture local firms in the competition, and to ensure that the local wage growth can keep at the same pace as productivity increase, preparing for a potentially domestic demand-led model. However, this does not mean that these MNCs could only create an export-led growth model à la German type, they could also create a debt-led one à la Southern European type (Bohle, 2018). For example, the four Visegrád countries competed on attracting European industrial capital in the 1990s and promoted industrial upgrading relying on the industrial foundation of the communist era, while the Baltic states, with a concern of being independent from

Russian influence, has sought to attract financial capital and to deindustrialize (ibid).

Stallings (2024) did not look at this dependency relationship from the perspective of firms, rather, her analysis adopts the angle of hegemonic and subordinated division. Echoing the four levels of IPE in growth models (Schwartz & Blyth, 2022), she applied her three mechanisms of dependency (i.e., market, leverage, and linkage) to the post-war growth models of Latin American countries. From the end of the war until the oil crisis, Latin America in general had a consumption-led growth model, in which impot-substitution strategy was used and the trade & financial relationships with the US and Europe were facilitating this growth model. Shortly after, there was a period of debt-led model as the cost of imports increased and these countries had to borrow from abroad, which eventually led to within-continent debt crisis. The strategy of America as a hegemon in the first two periods was to use both market and leverage mechanisms to restrain Latin America within the capitalist path that the US favors. The market mechanism refers to key economic links to sustain the development of the domestic economy and the leverage mechanism refers to political/economic/diplomatic coercion by the powerful nation. From 1990s, although most LA countries adopted an export-led growth model, there gradually appears a division between the north and the south. While Mexico and central American countries were concentrating on exporting manufacturing goods, due to their proximity to the US, the South American countries specialized in exporting commodities because of the rise of China as the global raw material importer. The growth models of LA have largely been shaped by the conflict between the two hegemons, and both tend to use the linkage mechanism (ideas, culture and persuasion) to promote their interests within the region.

Being aware of both the role of MNCs and hegemonic power, it is thus important to have a new analytical framework for peripheral growth models, which covers a broader range of possible demand sources and captures the subordinated and unstable nature of these growth models. Luckily, Mertens et al. (2022) and Stockhammer (2023) have provided us with some ideas. Still relying on traditional growth contribution approach, Mertens et al. (2022) analyzed growth models in nine emerging markets and found investment to be a neglected growth engine across many countries. What is useful is that they proposed a framework that could partially capture the heterogenous structure of peripheral economies. They divided peripheral growth models into consumption-led, export-led and investment-led. Building on each type, they developed two sub-types for each: wage-based (Brazil 2009-2016) vs. debt-based (South Africa 2001-2016) consumption-led, commodities-based (Brazil & Indonesia 2001-2008) vs. manufacturing-based (Korea 2001-2016) export-led and FDI-based (Mexico 2001-2016) vs. domestically-based (China 2001-2016) investment-led. Being a good starting point, this framework still

classifies countries based on demand components, which could have overemphasized the role of the form of expenditures (i.e., consumption vs. investment) and overlooked the key actors, who could link the international, national and firm-level analysis together. In that sense, Stockhammer's (2023) framework makes much more sense. He reviewed the history of Latin American Structuralism (LAS), Post-Keynesian Economics (PKE) and CPE, after which he put forward the LAS as the foundation for real and trade analysis of peripheral growth models, the currency hierarchy and financial instability literature in PKE as the foundation for financial analysis and the Developmental State literature as the foundation for state analysis. Combining these thoughts, he initiates an export-led growth model, with a neoliberal regime focusing on commodity exports, and with a developmentalist regime focusing on industrial upgrading; finance-led growth model, with a neoliberal regime having debt to finance consumption and financial transactions (typically driven by capital inflows), and a developmentalist regime having (domestic) debt to finance investment (with capital account management); and finally a state-led growth model with a developmental state. The advantage of the framework of Stockhammer over that of Mertens et al. is both empirical and theoretical. Empirically, Stockhammer's framework makes it easier to test it empirically, whereas for the other framework, it is difficult to find either wage data or pure domestically-based investment data for wide range of peripheral economies. Theoretically, it is hard to tell that to what extent wage-based consumption-led growth is driven by the same set of institutions as well as social blocs as that of domestically-based investment-led growth. In the case of China, the domestic investment has promoted upgrading, but the overall wage is also increasing, making it one of the biggest consumer markets in the world. Both types of growth have been supported by the party-government, and it seems unnecessary to split these two domestic demand components into two. The Stockhammer framework, on the other hand, has added the state and finance directly into discussion, thus, helps bridge the institutional analysis with the economic analysis. Thus, in this paper, we adopt the Stockhammer framework, although slight adjustment will be made for empirical concern.

Recently, there has also been an emerging type of literature which has special focus on the impact of growth drivers on growth or the relationship between growth drivers. Ba & Winecoff (2023) built their capital flow framework based on the recognition of the international financial system as a persistent and hierarchical structure, centred on the US. They have presented evidence to support not just the fact that gross capital inflow in other countries is driven by US financial conditions but isolating interbank lending as the most important channel to boost medium-run credit to the private sector and investment. Thus, they suggest that the impact of the volatile global capital flow goes beyond causing financial crisis. It leads to less dramatic but constraining effects of capital flow on medium-run growth

trajectories and the ability of state to have sound fiscal policies and make financial plans. Echoing Ba & Winecoff, Schedelik et al. (2023) were also aware of the cyclical impact of global financial conditions on national growth model but has attributed such movement not to the US conditions but to global commodity price cycles. Connecting the "real" and the "financial" constraints on peripheral growth models, they first showed that most of the poor economies are commodity-dependent[5], although countries with different levels of income tend to specialize in producing different types of commodities. Then, they established a framework of "commodity-finance nexus" (Akyüz, 2020), which depicts the different transmission mechanism between commodity and finance in the boom and the bust periods of the commodity price. In the boom period, if a country is commodity-dependent, then a commodity price boom will improve the external financial position of the country, attract capital inflow and appreciate the local currency. As a result, the real exchange rate appreciates and the local manufacturing businesses lose competitiveness in the global market, strengthening the commodity dependence. Whereas during the bust period, a commodity price decline could deteriorate the external financial position, leading to capital outflow and depreciation. Financial crisis happens when the country cannot repay its external debt (denominated in foreign currency) at the given exchange rate. They also connect the commodity price cycle with the fiscal policy, proposing that a procyclical fiscal policy would exacerbate the boom-bust fluctuation, therefore, resulting in stagnation, but a countercyclical fiscal policy (e.g., having sovereign wealth fund to store the wealth of commodity exports) could give the country a state-led growth model.

Schedelik & Nölke (forthcoming) have identified both commodity exports and capital flow as important growth driver but wish to explain when two countries have the same growth model in a certain period, the pathway could still differentiate in the future if the policy is different. To illustrate how the state could shape the growth model, they used three pairs of comparisons. For commodity-dependent Brazil and Indonesia, the use of protectionist policy decided that Indonesia growth did not fall as much as Brazil when the commodity price bust. For the debt-led growth model, the ability to use industrial policy to make sure that the demand from debt is absorbed by domestic firms rather than foreign firms differentiates South Africa and Turkey. Lastly, with the example of Thailand and Vietnam, they suggest that the upgrading in innovation system is crucial for the success of FDI-led growth model.

So far Jungmann (2023) is the only work that has adopted regression, as suggested by Kohler & Stockhammer (2023), in the growth driver analysis for peripheral economies. He analyzed 19 emerging

[5] Being commodity-dependent means having more than 60% of the exports being primary goods (UNCTAD, 2021).

economies, selected based on data availability from 2000 to 2019, and identified seven growth drivers: income distribution, price and non-price competitiveness, commodity prices, private debt, FDI, and fiscal policy. Through bivariate regression analyses, Jungmann found non-price competitiveness to be the only robust driver across time. Private debt and fiscal policy became more significant after the GFC, which he claimed supporting the findings of Akcay et al. (2022) regarding emerging economies shifting to the domestic demand-led or debt-led private demand boom growth regimes.

I believe the theoretical discussion and empirical evidence in the existing literature has provided good reasons to believe that the demand formation process is different in peripheral economies compared with core economies. Nevertheless, there are few shortcomings in the existing debate which requires further consideration. First, there exists a certain level of deviation between the theoretical discussion of peripheral growth models with the empirical test. As we discussed before, the framework of Stockhammer (2023) has provided a sound foundation for conducting growth driver research, but firstly Jungmann (2023) did not design the growth drivers in that way (and the selection of his growth drivers are rather arbitrary), and secondly, Schedelik & Nölke (forthcoming) only discussed the neoliberal regime in Stockhammer's framework and other empirical works considered growth drivers independently from general growth model classification. Thus, there needs to be a systemic level of growth driver test, which corresponds to a specific theoretical model. Second, Jungmann's work has not conducted multivariate regression and could suffer from omitted variable bias and reverse causality issues. Third, all of the discussion of peripheral growth models in the aforementioned literature has been fruitful for emerging market economies, i.e., medium and large size of peripheral economies, but not small size and poor peripheral economies. There is thus an empirical gap, leaving half of the countries outside the growth model research. Yet, as the CPE research continues to absorb IPE discussion, none of the concepts such as hegemony, global value chain, currency hierarchy, power imbalance, etc., could be properly understood by CPE if these large number of small economies are not included. Hence, in the next section, I propose an adjusted version of the Stockhammer (2023) framework, which would allow a systemic level testing of growth drivers through multivariate regression, and the inclusion of small-size peripheral economies into the GMA.

5. Theoretical Framework

In this section, I put forward a theoretical framework in Table 1, adjusted based on that of Stockhammer (2023). In his framework, there are five growth models, since the state-led model is identified only as Developmental State. However, as previous growth driver literature shows, public

spending could play a crucial role in both core and peripheral economies, especially after the GFC (Jungmann, 2023; Kohler & Stockhammer, 2022; Stockhammer & Otero, 2023). That means, for a state-led growth model, the role of the state could be seen from the supply side and the demand side. Some literature provides evidence in Sub-Saharan Africa and Latin America, that infrastructure construction has positive impact on economic growth (Calderón & Servén, 2010; Sanchez-Robles, 1998) while others have found an inverted U-shape relationship between infrastructure building and growth, suggesting a crowding-out effect when the public capital is too dominant compared to private capital (Shi et al, 2017). This supply-side effect has thus been researched in economic studies but not in GMA studies. So, I choose public capital stock growth as a growth driver, and it stands for the developmental state. While on the demand side, I adopt a Keynesian version of understanding of the expansionary effect of fiscal policy (Allain, 2015; Hein, 2018). Therefore, the demand-side state-led growth driver is total public expenditure.

Table 1: Classification of Growth Model

Growth Model	Peripheral-type	Core-type
Export-led Growth Model	Commodity-driven (commodity price)	Manufacturing-driven (foreign demand)
Finance-led Growth Model	FDI-driven/Portfolio-driven (net FDI and Portfolio outflow)	Debt-driven (domestic private credit)
State-led Growth Model	Developmentalist (public capital stock)	Keynesian (total public expenditure)

Source: Author's adjustment based on Stockhammer (2023)

As for export-led growth model, the literature has made it clear that the productive structure matters for how the export-led model works (Schedelik et al., 2023). To differentiate between commodity-dependent and industrial economies, we use two growth drivers. One is the commodity export price, and the other is foreign demand. It might seem odd to use foreign demand because in the core economy case, the export driver was either price competitiveness (Baccaro & Pontusson, 2016) or non-price competitiveness (Storm & Naastepad, 2016). In response, we put forward two points. The price competitiveness in core economy has a clear institutional background as the exchange rate is less volatile compared to peripheral economies and the cost of production could be modelled as being driven by wage bargaining. Labour unions and labour protection laws have been firmly established in these countries, therefore, we could attribute the changes in price competitiveness to such institutional changes and integrate this export dynamics with social bloc story. However, this is not the case for peripheral economies, as the exchange rate could either be driven by volatile international capital flow or managed by the central bank. The cost of production also involves not simply labour

cost, but also urbanization process, infrastructure building and import price of capital goods. This makes it harder to presuppose that price competitiveness is influenced by a single institution or policy and is less helpful in the growth model context. As for non-price competitiveness, some of its characteristics have already been captured by the division between commodity-driven and manufacturing-driven growth. The economic complexity level is more or less about the economic structure of an economy and that has an implication for how the goods are produced, how the firms are financed and what kind of role the state could play, rather than for how fast the exports are growing. Considering this, we use foreign demand, an export driver that has been neglected for some time, as a growth driver for manufacturing exports. It might also have some level of impact on commodity exports but once we control the commodity price in the regression, such an effect can be isolated.

Regarding finance, the different mechanisms of economic growth being shaped by both the internal and external finance have mostly been contributed by post-Keynesian economists. Hyman Minsky is the pioneer in endogenous financial instability research (Minsky, 2016). In the sphere of closed economy, his argument of business investment as an unstable driving force of financial fragility and financial cycle has been now extended to the field of real estate and household debt (Nikolaidi & Stockhammer, 2017) and CPE (Stockhammer, 2021). Kohler & Stockhammer (2022) presented evidence on the key role of house price boom-bust cycle across OECD economies in shaping both the pre- and post-crisis growth models. In the context of peripheral economies, the division between corporate and household debt is not that important because the transformation from an unindustrialized to industrialized economy is usually accompanied by industrial investment as well as the increase in consumption of the working force, as in the case of investment-led China (Mertens et al., 2022). Thus, I have used private sector credit as the growth driver, standing for domestic financial instability. On the other hand, the particularity of peripheral economies is that cross-border capital flow is driven by financial conditions of the country at the top of the currency hierarchy (Ba & Winecoff, 2023). The new reality of the international financial system is that the international capital flow is not driven by the "real" side of the economy anymore (trade, savings, and investment), but by the portfolio choices of the institutional investors. Through the balance sheet of the institutional investors, the assets in the core and the periphery are connected so that any fluctuations in the liquidity preference of the core economy could have huge impact on the peripheral economies (Bonizzi, 2017). The volatility of the capital flow also exacerbates the exchange rate volatility, which restricts the fiscal policy space of the peripheral economies (Schedelik et al, 2023; de Paula et al., 2017). Following Schedelik & Nölke (forthcoming), we differentiate between FDI and portfolio investment as the former could bring knowledge from core to peripheral economies and promote long-run growth, while the latter only

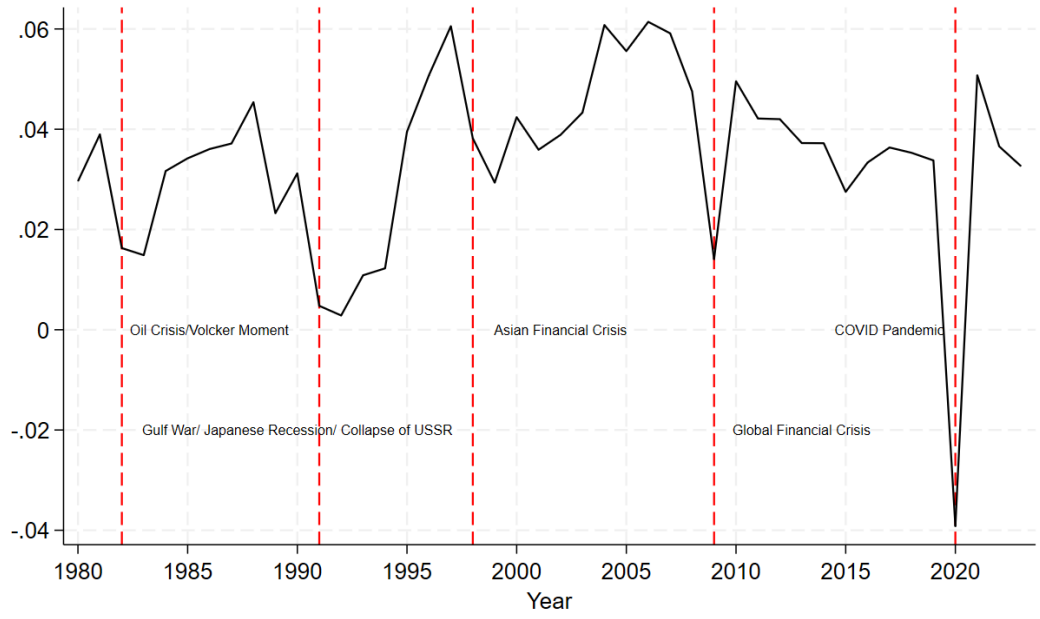
serves as unstable factor driving financial instability. Thus, there could be a FDI-driven finance-led growth model or a portfolio-driven finance-led growth model.

In Table 1, because the export-led (manufacture) vs. debt-led, and the critical role of austerity in growth model has been extensively discussed in the core growth model literature (Baccaro & Pontusson, 2016; Hein et al., 2021), we call these three as the Core-type. For the newly introduced growth drivers, such as commodity price, capital flow and public capital stock, we call it Peripheral-type. This classification certainly does not presume that the Core-type growth model only exists in the Core (e.g., East Asia being driven by manufacturing exports), and the Peripheral-type growth model only exists in the periphery (e.g., Australia and Norway could be commodity-driven). We created this dichotomy for the sake of distinguishing the typical core and the peripheral growth model debate. It remains interesting how some peripheral economies could move from the Peripheral-type to the Core-type and why some core economies manifest a peripheral-type growth model, but this is beyond the scope of this paper.

6. Data Description

To find the peripheral growth model, we first need to define the growth episodes of all peripheral economies. In the World Bank database, there are 212 economies which have real GDP data from 1980 to 2023. Among all observations, 30% of the observations have GDP per capita in constant USD higher than $12713.95, and we use this level as a threshold to distinguish between core and periphery. Figure 2 shows the average real GDP growth rate in all economies which have real GDP per capita lower than the threshold. We use global-level crises to differentiate episodes. From 1980s to 2020s, there are five major crises, namely, the Oil Crisis/Volker Moment (1982), the Gulf War/ Japanese Recession/ Collapse of USSR (1991), the Asian Financial Crisis (1998), the Global Financial Crisis (2009) and the COVID-Pandemic (2020). Thus, we end up with four episodes: 1983-1990, 1992-1997, 1999-2008 and 2010-2019.

Figure 2: Average of Real GDP Growth Rate in Peripheral Economies



Source: World Bank; Author's own elaboration

Within each episode, we calculate the compound growth rate or average level of the GDP growth rate and growth drivers of each economy. Where there are missing values, the earliest and the latest data available in each episode are used and the minimum number of observations in the four episodes need to be five, four, six and six for compound growth rate calculation and four, three, five and five for average level calculation.[6]

Table 2: Number of observations for each variable in each episode

Variables	Total	1983-1990	1992-1997	1999-2008	2010-2019
GDP Growth Rate	781	171	196	204	210
Private Credit	631	128	151	175	177
FDI net outflow (%GDP)	611	128	144	156	183
Portfolio net outflow (%GDP)	589	125	136	152	176
Commodity Price	668	144	168	178	178
Foreign Demand	613	101	156	177	179
Public Capital	612	132	151	167	162

[6] Details over data source and construction methodology, please see Appendix.

Public Expenditure	626	122	146	174	184
Number of observations in Periphery	293	48	69	88	88
Number of observations in Periphery (excluding extreme values)	230	N/A	61	83	86
Source: Author's elaboration					

As can be seen from Table 2, the number of observations of the GDP growth rate and the seven growth drivers are presented. These numbers are for both the core and the peripheral economies. The number of observations is usually the largest for GDP growth rate as most countries would have GDP data for a long period. To isolate the peripheral economies from this large sample, we first check how many observations do not have missing values in the GDP growth rates and all seven growth drivers. It appears that in total, there are 422 observations that can be used for a multivariate regression, with 68, 92, 127 and 135 in the respective four episodes. Then, we compare the GDP per capita (in constant USD) across observations and choose 70% ($13052) as a threshold, with those lower than this threshold being peripheral economies and higher being core economies. In the penultimate row of Table 2, there are the number of observations for all peripheral economies. However, as one could refer to the Appendix, the binary plots of GDP growth rate against these growth drivers show that the regression results in the peripheral economies are very likely to be driven by extreme values (or outliers). The macroeconomic conditions, in general, are more volatile in the periphery and we do not wish to let the special cases affect our classification of growth models in the end. Thus, we exclude the extreme values through first running binary regressions of GDP growth against each growth driver and then exclude the observations of which the GDP growth rate lies beyond three times of the standard error from the fitted values[7]. In the end, we have 230 observations in total which will be used in the regressions.

[7] There are two things to note when dealing with the extreme values. First, the observations in the episode 1983-1990 are not used in the examination of the extreme values. This is because that later on, to solve the endogeneity, we use first-order difference to serve as instrumental variable and all economies would lose one observation. In order to have comparable regression results, we do not include the first episode observations in other specifications as well. Second, the observations of Mexico and Gabon in the episode 1999-2008 are excluded although they lie within the confidence interval. From the binary plot, one can tell that their GDP growth rates are much lower than others with the same level of commodity price growth and when we run the robustness check, the inclusion of these two observations have obvious impact on the final results. The primary reason for their unique location is because the crisis year that we choose does not fit neatly to the collapse year of their commodity price level, which creates a big leap from bottom to high levels of commodity price at the beginning of their time series data. Hence, we take this exclusion of data an acceptable one due to the estimation error in the data construction process.

7. Regression Analysis

The equation that will be estimated is as follows:

$$GDP\_Growth_{i,t} = \beta_0 + \beta_1 CommodityPrice_{i,t} + \beta_2 ForeignDemand_{i,t} + \beta_3 FDI\_Outflow_{i,t} + \beta_4 Portfolio\_Outflow_{i,t} + \beta_5 PrivateCredit_{i,t} + \beta_6 PublicCapital_{i,t} + \beta_7 PublicExpenditure_{i,t} + \varepsilon_{i,t}$$

Where GDP_Growth is the compound GDP growth rate, $CommodityPrice$ is the compound commodity price growth rate, $ForeignDemand$ is the weighted trading partners' compound GDP growth rate, $FDI\_Outflow$ is the Foreign Direct Investment net outflow (%GDP), $Portfolio\_Outflow$ is the Portfolio Investment net outflow (%GDP), $PublicCapital$ is the compound public capital growth rate, $PublicExpenditure$ is the compound public expenditure growth rate, i=1,2,…,N stands for different economies, t=1,2, and 3 stands for different episodes and ε is the residual.

Besides the simple OLS specification, growth model research should be concerned by the time-invariant country-specific effects and shocks in certain periods. For the former, as we are dealing with peripheral economies, some emerging economies might have implemented successful policies to boost long-term growth, therefore, having both a high growth rate in growth driver and GDP, creating omitted variable bias. For the latter, the episode 1999-2008 is characterized by global economic boom, vast amount of international capital flow and high demand for both manufacturing and primary goods. Not controlling the time variable also endangers suffering biased estimation. Therefore, one-way fixed effect and two-way fixed effect specifications should be used to control the individual and time effects. However, even if the country-specific effect is not correlated with the explanatory variable, neglecting it could also reduce the efficiency of the estimation and leading to overestimated and underestimated standard error. Therefore, we need a further random effect model. Last but not least, some of the growth drivers (e.g., portfolio investment, private credit, and public expenditure) could suffer from endogeneity issues as there could be reverse causality. In reality, these growth drivers could move pro-cyclically with growth. Yet the availability of data restricts the possibility of finding enough observations of external instrumental variables. We therefore use the first-order difference as instrumental variables to address the reverse causality. This model will be IV-FE, which means both the instrumental variables and fixed effects will be considered.

Table 3: Regression results of growth driver test across peripheral economies (excluding extreme values)

Model	1	2	3	4	5
Dependent Variable	GDP Growth Rate	GDP Growth Rate	GDP Growth Rate	GDP Growth Rate	GDP Growth Rate

Estimator	OLS	One-way FE	Two-way FE	RE	IV-FE
Commodity Price	0.0342*	0.0571**	0.0643*	0.0401**	0.0504**
	(0.02)	(0.02)	(0.03)	(0.02)	(0.03)
Foreign Demand	0.248**	-0.0657	-0.0965	0.223*	-0.136
	(0.11)	(0.25)	(0.26)	(0.12)	(0.29)
FDI Net Outflow	0.00144	-0.185***	-0.221***	-0.0334	-0.207***
	-0.0334	-0.0584	-0.0587	-0.0379	-0.0603
Portfolio Net Outflow	0.0932	0.148	0.188	0.0882	0.157
	(0.08)	(0.13)	(0.13)	(0.09)	(0.13)
Private Credit	0.0694***	0.0344**	0.0329**	0.0580***	0.0473***
	(0.01)	(0.02)	(0.02)	(0.01)	(0.02)
Public Capital	0.0671**	0.0178	0.0164	0.0572*	-0.0135
	(0.03)	(0.04)	(0.04)	(0.03)	(0.05)
Public Expenditure	0.137***	0.113***	0.117***	0.128***	0.149***
	(0.03)	(0.03)	(0.03)	(0.03)	(0.04)
1999-2008			-0.00547**		
			(0.00)		
2010-2019			-0.00415		
			(0.00)		
Constant	0.0221***	0.0312***	0.0345***	0.0232***	
	(0.00)	(0.01)	(0.01)	(0.00)	
Sargan-Hansen p-value				0.0004	
Underidentification Test					0.000
Weak Identification Test (Kleibergen-Paap rk Wald F)					21.046>7.03
Observations	230	230	230	230	176
R-squared	0.442	0.482	0.502		0.392
Number of Country		107	107	107	69
Robust standard errors in parentheses, *** p<0.01, ** p<0.05, * p<0.1					

The regression results are presented in Table 3. Model 1 is the OLS specification, and five out of seven growth drivers are significant in this specification. All five coefficients have had expected signs. The only two that are not significant are FDI and portfolio investment net outflows. The expected signs are negative as outflow should drive down economic growth but being positive though insignificant raises potential endogeneity concern. The control of the fixed effect changes the image.

With the one-way fixed effect in Model 2, only four growth drivers are significant now. The coefficient

of the commodity price growth has increased from 0.034 to 0.057, meaning there could be some countries which have a low commodity price growth rate but medium-to-high level of economic growth. Controlling them allows the impact of commodity price increase to be larger, which corresponds to the analysis of the literature on commodity dependence (Schedelik et al., 2023). Foreign Demand and Public Capital are now insignificant, and the coefficients have declined. It could be because some economies have had close trade relationships with a few of the fast-growing economies, which made small groups of trade partners grow higher than others. Also, those which have received aid to build infrastructure (e.g., the Belt and Road Initiative) could have had public capital-driven growth but it cannot be applied to the wide range of peripheral economies. FDI outflow is now showing expected sign as the inflow would drive up growth, but portfolio investment is still insignificant, suggesting the interpretation that the portfolio flow does not drive growth is robust. Private credit and public expenditure remain significant but with smaller coefficients.

Model 3 adds time fixed effect into Model 2 but has not changed much of the results. The only unexpected outcome is the coefficient of the episode 1999-2008. Unlike the intuitive impression of the global economic boom, this episode has had lower economic growth rate compared to other episodes. Other coefficients have not changed too much compared to Model 2, meaning the time fixed effect can be ignored.

If we look at the random effect in Model 4, we can tell that the results are very similar to Model 1, despite some changes in significance level. To determine whether fixed effect or random effect should be used, the usual methodology is to use Hausman Test. However, because robust standard errors have been used in these regressions, we would need to use Sargan-Hansen Difference Test (Baum et al., 2003). If the p-value in this test is lower than 5%, we reject random effect. As shown in Table 4, the p-value is 0.0004, therefore, random effect is rejected and fixed effect in Model 2 is preferred.

Last but not least, we are worried about the potential reverse causality between the economic growth rate and the significant variables (i.e., private credit and public expenditure). Thus, we use instrumental variables-fixed effect models to address the issue (Baum et al., 2003). The first-order difference of the two potential endogenous growth drivers is used as instrumental variable. There are 26 observations which lie in the singleton group, meaning these economies only have observations in one of the episodes. Thus, they would not have data for instrumental variables and are deleted from the regression. We end up with 176 observations and 69 economies. Model 5 shows the regression results. First, the instrumental variables have passed both the under-identification and weak identification

tests, suggesting the IVs are valid. Second, the coefficients of the commodity price and FDI outflow look relatively similar in Model 5 and Model 2. The coefficients of private credit and public expenditures have increased in Model 5 by 30-40% than in Model 2. This is unexpected, because we would expect that the reverse causality between economic growth and these two growth drivers to be positive, meaning the original coefficients should have overestimated the impact. The results would imply that beyond reverse causality, there could be other reasons for endogeneity of these two growth drivers and the increase in the coefficients are the net effect of considering the impacts of all possible endogeneity reasons. Yet as the four growth drivers themselves stay significant in both Model 2 and Model 5, we take the regression results as robust for the peripheral economies in this sample. The conclusion is thus that the economic growth of peripheral economies is driven by two external growth drivers (i.e., commodity price and FDI net outflow) and two internal drivers (i.e., private credit and public expenditure). In the periphery, the peripheral-type growth model has been either finance-led or export-led but not state-led, while the core-type growth model has been either finance-led or state-led but not export-led. In the next section, we will discuss in detail how to classify growth models based on our regression results.

8. Growth Model in the Periphery

Now that we know the coefficients from the regression, we can multiply the coefficients by the real changes in growth drivers to know the contribution of each growth drivers to economic growth. With the contributions of growth drivers, we can classify growth models. Ideally, we could classify growth models based on the ratio of the growth contribution of each growth driver to the predicted growth rate, which is the sum of growth contributions of all drivers. In reality, this does not usually make sense as some drivers could have negative growth rates, which drags down the predicted growth rate. For instance, country A could have private credit contributing to 3% of economic growth and commodity price contributing to -3% of economic growth, making the predict growth rate zero. If we adopt the aforementioned method, we will classify this country as no growth model and could be clustered in the same group as a country B, which has zero contribution from both private credit and commodity price. To address this issue, we put forward an alternative method. The idea is not to see the significance of a growth driver in net growth but the overall fluctuation of real demand. Still with country A, if we take the absolute value of all growth drivers contributions and sum those numbers up, the total fluctuation in growth would be 6% and each of the growth driver contributes 50% of the total fluctuation, rendering this country follow a debt-driven growth model and a commodity-driven stagnation model. The key is thus to ignore the sign of the contribution while identifying the relative

importance of the growth driver but include it when we decide whether it's growth model or stagnation model. Although being arbitrary, this paper only identifies a growth model or stagnation model when the share of growth contribution in total growth fluctuation is greater than or equal to 30%.

Table 4: Classification of Growth Models in Emerging Economies

Emerging Economies	1992-1997	1999-2008	2010-2019
Brazil	Debt-driven Stagnation/State-led Growth	State-led Growth	FDI-driven Growth
Chile	State-led Growth	FDI-driven Growth	N/A
China	State-led Growth/FDI-driven Growth	State-led Growth	State-led Growth
Egypt	Debt-driven Growth	Commodity-driven Growth/FDI-driven Growth	FDI-driven Growth
Indonesia	Debt-driven Growth	State-led Growth/Commodity-driven Growth	State-led Growth
India	State-led Growth	Debt-led Growth/State-led Growth	State-led Growth
Mexico	State-led Stagnation/FDI-driven Growth	N/A	Debt-driven Growth/FDI-driven Growth
Malaysia	FDI-driven Growth	State-led Growth/Commodity-driven Growth	State-led Growth/Debt-driven Growth
Peru	State-led Growth/Debt-driven Growth	FDI-driven Growth	State-led Growth/FDI-driven Growth
Thailand	State-led Growth	State-led Growth/FDI-driven Growth	State-led Growth
Ukraine	N/A	Debt-driven Growth	Debt-driven Stagnation/FDI-driven Growth
South Africa	State-led Growth/Debt-driven Growth	State-led Growth	State-led Growth

Source: Author's Elaboration

In Table 4, we have presented some examples of the classification of growth models in emerging economies. These are the economies that have been extensively discussed in previous growth model literature. We would like to highlight some key differences between our classification and theirs. First, most studies that have adopted the growth contribution approach (Ackay et al., 2022; Ackay & Jungmann, 2023; Güngen & Akçay, 2024) would classify emerging economies as either domestic demand-led or export-led without stressing the important role of public expenditure (not just public consumption but also public investment) and export structure (manufacturing vs. commodity). Our classification has first distinguished debt-driven from state-led growth model, and also the identification of commodity-driven growth model. Second, the impact of commodity prices on growth is not as large and as direct as we expect. Economies like Brazil and Chile have been classified as export-

led or commodity-led in the literature (Mertens et al., 2022; Passos & Morlin, 2022; Schedelik & Nolke, forthcoming), but in the episode 1999-2008, these two economies are classified as State-led Growth Model and FDI-driven Growth Model. This does not suggest that they did not experience commodity boom, but the impact is not as large as public expenditure and FDI inflow. Third, the Asian economies, usually seen as pioneers of export-oriented development strategy, have mostly had state-led feature. Again, this does not suggest manufacturing exports are unimportant but emphasizes the long existence and the success of their fiscal strategies.

Above are emerging economies that have been thoroughly discussed in the literature but what about least-developed peripheral economies? Does the growth driver approach tell us anything about their pattern of growth models? Table 5 has given the answer. Across all peripheral economies, there are several findings. First, most economies have had Debt-driven, State-led or FDI-driven growth models. The shares of the State-led and FDI-driven growth models are increasing overtime while that of the debt-driven growth model is declining. Second, each episode has had their unique feature of growth model distributions. From 1992 to 1997, there are a small group of economies which have had either debt-driven stagnation or state-led stagnation, which have disappeared in the later decades. In the 2000s, around 12% of the peripheral economies can be classified as commodity-driven growth model, but this group also disappeared following the commodity price bust. In the last episode, most economies have been concentrating on the major three growth models with bare exceptions. Last, although most economies are moving towards the State-led and FDI-driven growth models, the average economic growth rates of these two growth models only remained high in the first two episodes. The significant fall in economic growth rate in the third episode shows that the Global Financial Crisis has had a larger impact on peripheral growth models than the Asian Financial Crisis.

Table 5: Share of peripheral economies in each growth/stagnation model category and the average economic growth rate

Growth Model	Indicator	Total	1992-1997	1999-2008	2010-2019
Debt-driven Growth Model	**Number**	37 (21.02%)	15 (29.41%)	12 (18.18%)	10 (16.95%)
	Average Growth Rate	4.90%	4.49%	6.06%	4.13%
Debt-driven Stagnation Model	**Number**	9 (5.11%)	8 (15.69%)	0 (0%)	1 (1.69%)
	Average Growth Rate	2.44%	2.80%	N/A	-0.45%
State-led Growth Model	**Number**	96 (54.55%)	26 (50.98%)	35 (53.03%)	35 (59.32%)
	Average Growth Rate	4.80%	5.12%	5.05%	4.32%
State-led Stagnation Model	**Number**	7 (3.98%)	4 (7.84%)	1 (1.52%)	2 (3.39%)

	Average Growth Rate	2.39%	1.86%	2.63%	3.31%
Commodity-driven Growth Model	**Number**	12 (6.82%)	4 (7.84%)	8 (12.12%)	0 (0%)
	Average Growth Rate	4.51%	3.48%	5.03%	N/A
Commodity-driven Stagnation Model	**Number**	1 (0.57%)	0 (0%)	0 (0%)	1 (1.69%)
	Average Growth Rate	3.13%	N/A	N/A	3.13%
FDI-driven Growth Model	**Number**	82 (46.59%)	15 (29.41%)	31 (46.97%)	36 (61.02%)
	Average Growth Rate	3.87%	4.16%	4.21%	3.45%
FDI-driven Stagnation Model	**Number**	1 (0.57%)	1 (1.96%)	0 (0%)	0 (0%)
	Average Growth Rate	4.40%	4.40%	N/A	N/A
Number of Observations		176	51	66	59
Source: Author's Elaboration					

Beyond the classification of growth models, the average growth contribution of growth drivers in each growth model also reveals the hidden mask of the peripheral growth models. We coin the term "Diversity of Growth Model" based on data in Table 6. To understand what the diversity is measuring, we refer to the average growth contribution of commodity price in each type of growth model. Although in most growth models, commodity price is not playing a role as crucial as we would expect, the trend of commodity price contribution is the same. One can see a moderate contribution of commodity prices in 1992-1997, a boom in 1999-2008 and a bust in 2010-2019. This implies that the impact of change in global economic conditions on growth models may not only be revealed in the classification of growth models, but also within each type of growth model. Given this, we initiate the within growth model composition could be understood from the perspective of the concentration of growth, or the diversity. To measure it, divide the sum of contributions of all non-leading growth drivers (e.g., for a debt-driven growth model, private credit is the leading growth driver and the other three are non-leading) by the contribution of the leading growth driver. If this index is higher than 100%, then the growth model is diversified, otherwise, it is undiversified.

To compare between growth models, refer to the last row of each growth model in Table 7. The column shows the average level of diversity in all economies with that growth model. The pattern is that the debt-driven, state-led and commodity-driven growth models are diversified while the FDI-driven growth model is undiversified. The episode-specific pattern is that the second episode in all cases has a high diversity index, and the third episode has the lowest diversity index. This makes sense as the global demand boom of core economies has spillover effects on peripheral economies through both

trade (i.e., commodity price) and finance (i.e., FDI and other capital flow) channels. As the balance of payment constraints are being lifted, domestic demand could increase as well. With more growth drivers contributing to growth, the diversity should increase. In the post-GFC episode, it is vice versa.

Based on this concept of diversity, we have two interesting findings, which might inform future research on growth model. First, if we compare the diversity index of all episodes in Table 6 with average growth rate of corresponding growth models in Table 5, we will see that the higher the diversity index, the higher the economic growth rate. If this causal mechanism could be supported by further empirical evidence, it could refresh our understanding of long-term growth. To have a sustainable high economic growth in peripheral economies, what matters might not be to choose one type of growth model, say whether state-led growth grows higher than debt-driven growth, or to implement a package of "one-size-fits-all" policies. It is crucial to maintain a high level of diversity of growth models to achieve a sustainable high growth rate. Second, as other literature would suggest, the Global Financial Crisis has been a breaking point for the growth model in core economies (Kohler & Stockhammer, 2022), with some using countercyclical fiscal policy and shifting to a state-led growth model while others stagnating and fail to find a growth model. This breaking point also exists for peripheral economies, but based on our data, we see it from another perspective. In the post-GFC episode, more than 76% of peripheral economies have either debt-driven or state-led growth models while 61% of them have FDI-driven growth models (i.e., meaning some economies have dual-type growth models). This means there is a group of economies having diversity index ranging from 80% to 110% and a growth rate above 4%, while another group of economies heavily focusing on FDI-driven growth model, with a diversity index around 50% and growing lower than 3.5% on average. If we only look at the last episode, then the data shows (available in Appendix) that the average growth rate of the FDI-driven growth model is 2.87% in Latin American economies, 4.20% in Sub-Saharan Africa, and 6.35% in East/Southeast/South Asia. That of the non-FDI-driven State-led or Debt-driven growth models is 3.92% in Latin America, 4.36% in Africa and 5.58% in East/Southeast/South Asia. Therefore, for one thing, Latin American economies have had lower growth rate in the last episode compared to most of other peripheral economies, and for another thing, the difference in growth rates of the aforementioned two groups can be partially explained by the within-LA difference. Apart from Brazil and Peru, those who are FDI-driven are all located in Central America and Caribbean, while the three non-FDI-driven economies are Southern American Economies. So, the findings do echo, to some extent, to the suggestion of Stallings (2024) that the two sub-regions in Latin America have different growth models and trajectories, but in this case, it is the role of FDI and diversity which becomes crucial. In conclusion, the regional division in growth model, diversities and economic growth rate is revealed

after the GFC and that urges scholars to pay extra attention to the impact of GFC on growth models from the perspective of comparing regions.

Table 6: Average growth contribution of growth drivers in each growth model					
Growth Model	**Indicator**	**Total**	**1992-1997**	**1999-2008**	**2010-2019**
Debt-driven Growth Model	**Private Credit**	0.81%	0.79%	1.01%	0.60%
	Public Expenditure	0.52%	0.60%	0.70%	0.20%
	Commodity Price	0.12%	0.11%	0.33%	-0.13%
	FDI	0.46%	0.32%	0.55%	0.57%
	Contribution of non-leading drivers	1.10%	1.03%	1.58%	0.64%
	Diversity	135.68%	129.54%	156.47%	105.93%
State-led Growth Model	**Private Credit**	0.42%	0.52%	0.43%	0.33%
	Public Expenditure	0.92%	0.99%	1.00%	0.77%
	Commodity Price	0.11%	0.12%	0.34%	-0.12%
	FDI	0.45%	0.34%	0.56%	0.43%
	Contribution of non-leading drivers	0.99%	0.98%	1.33%	0.65%
	Diversity	107.79%	98.90%	132.89%	83.74%
Commodity-driven Growth Model	**Private Credit**	0.22%	0.06%	0.30%	N/A
	Public Expenditure	0.30%	0.10%	0.40%	N/A
	Commodity Price	0.53%	0.35%	0.63%	N/A
	FDI	0.23%	0.12%	0.28%	N/A
	Contribution of non-leading drivers	0.75%	0.28%	0.98%	N/A
	Diversity	140.50%	82.16%	156.63%	N/A
FDI-driven Growth Model	**Private Credit**	0.28%	0.41%	0.26%	0.24%
	Public Expenditure	0.48%	0.57%	0.56%	0.38%
	Commodity Price	0.08%	0.05%	0.32%	-0.12%
	FDI	1.08%	1.06%	1.20%	0.98%
	Contribution of non-leading drivers	0.84%	1.02%	1.15%	0.50%
	Diversity	77.91%	95.94%	95.59%	51.20%
Source: Author's Elaboration					

9. Conclusion

This paper has contributed to the understanding of growth models in peripheral economies. To do so, it first reviews the emergence of this field of research as it opposes the Varieties of Capitalism (VoC) in its micro-based supply-side institutional analysis of comparative political economy. Scholars soon join in this debate on how to incorporate the macro-based demand-side economics into the CPE framework. While the methodology to identify growth models has been the centre of focus in the growth model research on core economies, its application to peripheral economies is still a controversial one. This

paper adopts the Growth Driver Approach, supports literature which embraces a core-periphery view on the global political economy and stresses the impact of this structure on the peripheral growth model. To enrich the current debate, this paper observes two important gaps in the current peripheral growth model research, namely, the lack of a systemic framework for peripheral growth driver testing and the limitation of focus only on the "emerging" group of the peripheral economies.

Building on Stockhammer (2023), this paper puts forward seven possible growth drivers, divided into the core-type drivers and peripheral-type drivers. The empirical test of this paper covers the period from 1992 to 2019 and included as many as over 100 peripheral economies in the sample. In the regression analysis, to address the potential endogeneity, the sample is narrowed down to 69 economies in a fixed effect regression with instrumental variables. We found that private credit, public expenditure, commodity price and FDI net outflow have been the four main growth drivers for the peripheral economies. To classify the growth models, this paper presents the results of growth contributions of growth drivers and concludes that most peripheral economies are dominated by debt-driven, state-led and FDI-driven growth models, while the shares of the latter two have been increasing over time. We also initiate the concept "diversity of growth models" to measure the concentration of growth on the leading growth driver. Evidence suggests higher diversity comes with higher economic growth rate, and the post-GFC peripheral diversity of growth model could have been shaped by the regional level political economy, which has long lasting effect on the future growth trajectories and possible divergence between peripheral economies.

What could CPE and Post-Keynesian-Structuralist Economics learn from this paper? For CPE, there are two main takeaways. First, this paper identifies State-led and FDI-driven growth models as the dominant peripheral growth models but only the latter has been well discussed in the GM literature, and it is mostly about Eastern European Economies. The role of fiscal policy in peripheral economies is not exactly the same as in core economies, in which it boosts effective demand. As Kaldor-Verdoorn Law shows, the technical progress and structural change in the peripheral economies are driven by the demand, and as for most peripheral economies, the market size is small and the accumulation of private capital is not mature enough to stimulate sustaining investment, the state (fiscal policy in particular), alongside with exports, could be very crucial. This interaction of supply-side and demand-side and the role of state could be a direction of future peripheral CPE research. Second, this paper argues that higher diversity of growth models leads to higher economic growth, thus, the long-run policy regime should target pushing for diversified growth drivers. This could be difficult in reality because if each growth driver is supported by a different social bloc/institution (Baccaro & Pontusson,

2019), there is no guarantee that diversified social blocs can live with each other harmoniously. It then becomes important for future CPE research to be aware of which group of growth drivers can coexist and how to settle the conflicts between social blocs.

As for PK-Structuralist Economics, the findings of this paper reconfirm their understanding of the world economy as one with core-periphery structure. It also stresses the role of demand, external demand in particular, in driving the fluctuations of peripheral growth. What needs to be answered by economists is why did public capital (or infrastructure) not drive the peripheral growth model? Whether it only works in certain regions/stages of development or if it only matters in the long run, would be an interesting question. Also, the concept of diversity suggests we can derive some long-run policy initiatives based on medium-run economic structures. If that is the case, how do we understand the relationship between medium-run and long-run growth? In other words, it is underexplored by PK-Structuralist economists of how their understanding of long-run economics accommodates with the medium-run institution and social blocs-supported economic disequilibrium.

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References

Akcay, Ü. & Jungmann, B. (2023) Growth regimes, dominant social blocs and growth strategies: towards varieties of export-led growth regimes and strategies in Turkey and Poland. *European Journal of Economics and Economic Policies*. [Online] 20 (3), 539–560. [online]. Available from: https://doi.org/10.4337/ejeep.2023.0123.

Akcay, Ü. et al. (2022) Financialisation and macroeconomic regimes in emerging capitalist countries before and after the Great Recession. *International Journal of Political Economy*. [Online] 51 (2), 77–100. [online]. Available from: https://doi.org/10.1080/08911916.2022.2078009.

Allain, O. (2015) Tackling the instability of growth: a Kaleckian-Harrodian model with an autonomous expenditure component. *Cambridge Journal of Economics*. [Online] 39 (5), 1351–1371. [online]. Available from: https://doi.org/10.1093/cje/beu039.

Ayküz, Y. (2020) The commodity-finance nexus: twin boom and double whammy. *Revista de Economia Contemporânea* [Online] 24 (1), 1–13, doi: 10.1590/198055272418

Ba, H. & Winecoff, W. K. (2023) American financial hegemony, global capital cycles, and the macroeconomic growth environment. *Economics and Politics*. [Online] 36 (1), 334–372. [online]. Available from: https://doi.org/10.1111/ecpo.12254.

Baccaro, L. & Benassi, C. (2017) Throwing out the ballast: growth models and the liberalization of German industrial relations. *Socio-economic Review*. [Online] mww036. [online]. Available from: https://doi.org/10.1093/ser/mww036.

Baccaro, L. & Bulfone, F. (2022) "Growth and Stagnation in Southern Europe: The Italian and Spanish Growth Models Compared," in *Oxford University Press eBooks*. [Online]. pp. 293-322. [online]. Available from: https://doi.org/10.1093/oso/9780197607855.003.0012.

Baccaro, L. & Hadziabdic, S. (2023) Operationalizing growth models. *Quality & Quantity*. [Online] 58 (2), 1325–1360. [online]. Available from: https://doi.org/10.1007/s11135-023-01685-w.

Baccaro, L. & Höpner, M. (2022) "The Political-Economic Foundations of Export-Led Growth: An analysis of the German case," in *Oxford University Press eBooks*. [Online]. pp. 238-267. [online]. Available from: https://doi.org/10.1093/oso/9780197607855.003.0010.

Baccaro, L. & Howell, C. (2017) Unhinged: Industrial relations liberalization and capitalist instability. Max Planck Institute Discussion Paper (17/19), pp. 1–30.

Baccaro, L. & Pontusson, J. (2016) Rethinking comparative political economy. *Politics & Society*. [Online] 44 (2), 175–207. [online]. Available from: https://doi.org/10.1177/0032329216638053.

Baccaro, L. & Pontusson, J. (2019) Social blocs and growth models: An analytical framework with Germany and Sweden as illustrative cases. Unequal Democracies Working Papers (7), pp. 1–46.

Ban, C. & AdĂscĂliȚei, D. (2022) “The FDI-Led growth models of the East-Central and South-Eastern European periphery,” in *Oxford University Press eBooks*. [Online]. pp. 189–210. [online]. Available from: https://doi.org/10.1093/oso/9780197607855.003.0008.

Barredo, J. & Buendía, L. (2024) Financial expansion in Sweden (2000–2008): A hybrid “debt&export-led” growth model. *Competition & Change*. [Online] [online]. Available from: https://doi.org/10.1177/10245294241242627.

Baum, C. F. et al. (2003) Instrumental Variables and GMM: Estimation and testing. *The Stata Journal Promoting Communications on Statistics and Stata*. [Online] 3 (1), 1–31. [online]. Available from: https://doi.org/10.1177/1536867x0300300101.

Bhaduri, A. & Marglin, S. (1990) Unemployment and the real wage: the economic basis for contesting political ideologies. *Cambridge Journal of Economics*. [Online] 14 (4), 375–393. [online]. Available from: https://doi.org/10.1093/oxfordjournals.cje.a035141.

Blecker, R. A. (2021) New advances and controversies in the framework of balance-of-payments-constrained growth. *Journal of Economic Surveys*. [Online] 36 (2), 429–467. [online]. Available from: https://doi.org/10.1111/joes.12463.

Blyth, M. et al. (2022) *Diminishing returns: The New Politics of Growth and Stagnation*. Oxford University Press.

Bohle, D. & Regan, A. (2021) The Comparative Political Economy of Growth Models: Explaining the continuity of FDI-Led growth in Ireland and Hungary. *Politics & Society*. [Online] 49 (1), 75–106. [online]. Available from: https://doi.org/10.1177/0032329220985723.

Bohle, D. (2018) Mortgaging Europe’s periphery. *Studies in Comparative International Development*. [Online] 53 (2), 196–217. [online]. Available from: https://doi.org/10.1007/s12116-018-9260-7.

Bondy, A. S. et al. (2024) Putting wage growth back on the table: Labour incorporation, political exchange, and wage-boosting policies in advanced peripheral economies. *Competition & Change*. [Online] [online]. Available from: https://doi.org/10.1177/10245294241226733.

Bonizzi, B. (2017) An alternative Post-Keynesian framework for understanding capital flows to emerging markets. *Journal of Economic Issues*. [Online] 51 (1), 137–162. [online]. Available from: https://doi.org/10.1080/00213624.2017.1287502.

Bonizzi, B. et al. (2020) “Subordinate financialization in emerging capitalist economies,” in *Routledge eBooks*. [Online]. pp. 177–187. [online]. Available from: https://doi.org/10.4324/9781315142876-15.

Bramucci, A. (2024) In search of a growth model for Italy: the failed attempt of an export-led recovery strategy?*. *European Journal of Economics and Economic Policies*. [Online] 21 (1), 113–132. [online]. Available from: https://doi.org/10.4337/ejeep.2023.0119.

Braun, B. & Deeg, R. (2020) Strong firms, weak banks: The financial consequences of Germany's Export-Led growth model. *German Politics*. [Online] 29 (3), 358–381. [online]. Available from: https://doi.org/10.1080/09644008.2019.1701657.

Calderon, C. & Serven, L. (2010) Infrastructure and economic development in Sub-Saharan Africa. *Journal of African Economies*. [Online] 19 (Supplement 1), i13–i87. [online]. Available from: https://doi.org/10.1093/jae/ejp022.

Campana, J. M. et al. (2024) Demand and growth regimes of the BRICs countries – the national income and financial accounting decomposition approach and an autonomous demand-led growth perspective. *European Journal of Economics and Economic Policies*. [Online] 21 (1), 17–41. [online]. Available from: https://doi.org/10.4337/ejeep.2023.0100.

Chang, H.-J. (2003) Kicking Away the Ladder: Infant industry promotion in historical perspective. *Oxford Development Studies*. [Online] 31 (1), 21–32. [online]. Available from: https://doi.org/10.1080/1360081032000047168.

Chang, H.-J. (2008) *Bad Samaritans: The Myth of Free Trade and the Secret History of Capitalism*. Bloomsbury Press.

Clift, B. & McDaniel, S. (2022) The politics of the British model of capitalism's flatlining productivity and anaemic growth: Lessons for the growth models perspective. *British Journal of Politics and International Relations/British Journal of Politics & International Relations*. [Online] 24 (4), 631–648. [online]. Available from: https://doi.org/10.1177/13691481211044638.

Coulter, S. (2018) Skill Formation, immigration and European Integration: The Politics of the UK Growth Model. *New Political Economy*. [Online] 23 (2), 208–222. [online]. Available from: https://doi.org/10.1080/13563467.2017.1370446.

De Paula, L. F. et al. (2017) Keynes at the periphery: Currency hierarchy and challenges for economic policy in emerging economies. *Journal of Post Keynesian Economics*. [Online] 40 (2), 183–202. [online]. Available from: https://doi.org/10.1080/01603477.2016.1252267.

Dellepiane-Avellaneda, S. et al. (2022) Financial resource curse in the Eurozone periphery. *Review of International Political Economy*. [Online] 29 (4), 1287–1313. [online]. Available from: https://doi.org/10.1080/09692290.2021.1899960.

Detzer, D. & Hein, E. (2016) "Financialisation and the crises in the export-led mercantilist German economy," in *Edward Elgar Publishing eBooks*. [Online]. p. [online]. Available from: https://doi.org/10.4337/9781785362385.00012.

Di Carlo, D. & Molina, O. (2024) Same same but different? The Mediterranean growth regime and public sector wage-setting before and after the sovereign debt crisis. *European Journal of Industrial Relations*. [Online] 30 (1), 31–53. [online]. Available from:

https://doi.org/10.1177/09596801231183787.

Di Carlo, D. et al. (2024) Between export-led growth and administrative Keynesianism: Italy's two-tiered growth regime. *New Political Economy*. [Online] 1–22. [online]. Available from: https://doi.org/10.1080/13563467.2024.2336515.

Eichengreen, B. & Hausmann, R. (1999) *Exchange rates and financial fragility*. [online]. Available from: https://doi.org/10.3386/w7418.

Eichengreen, B., Hausmann, R. & Panizza, U. (2002) *Original sin: the pain, the mystery, and the road to redemption*, Mimeo

Éltető, A. & Medve-Bálint, G. (2023) Illiberal Versus Externally Fomented growth model readjustment: post-GFC state aid in the EU's semi-periphery. *Competition & Change*. [Online] 27 (5), 830–850. [online]. Available from: https://doi.org/10.1177/10245294231162176.

Erixon, R. & Pontusson, J. (2022) "Rebalancing Balanced Growth: The Evolution of the Swedish Growth Model since the Mid- 1990s," in *Oxford University Press eBooks*. [Online]. pp. 268-292. [online]. Available from: https://doi.org/10.1093/oso/9780197607855.003.0011.

Ginn, W. (2023) World output and commodity price cycles*. *International Economic Journal*. [Online] 37 (4), 530–554. [online]. Available from: https://doi.org/10.1080/10168737.2023.2263844.

Gruss, B. (2014) After the Boom–Commodity prices and economic growth in Latin America and the Caribbean. *SSRN Electronic Journal*. [Online] [online]. Available from: https://doi.org/10.2139/ssrn.2491604.

Güngen, A. R. & Akçay, Ü. (2024) Growth models, growth strategies, and power blocs in Turkey and Egypt in the twenty-first century. *European Journal of Economics and Economic Policies*. [Online] 21 (1), 151–171. [online]. Available from: https://doi.org/10.4337/ejeep.2024.01.09.

Güngen, A. R. (2022) The Authoritarian State Form, Reconfiguration of Power Bloc, and the Growth Model in Turkey in the 21st century. *European Journal of Turkish Studies*. [Online] (34), . [online]. Available from: https://doi.org/10.4000/ejts.7960.

Guschanski, A. & Onaran, Ö. (2017) Why is the wage share falling in emerging economies? Industry level evidence. *Greenwich Papers in Political Economy*. [online]. Available from: https://ideas.repec.org/p/gpe/wpaper/17536.html.

Hall, P. A. & Soskice, D. (2001) *Varieties of capitalism: The Institutional Foundations of Comparative Advantage*. OUP Oxford.

Hassel, A. (2017) No way to escape imbalances in the eurozone? Three sources for Germany's export dependency: industrial relations, social insurance and fiscal federalism. *German Politics*. [Online] 26 (3), 360–379. [online]. Available from: https://doi.org/10.1080/09644008.2017.1342813.

Hay, C. & Wincott, D. (2012) *The political economy of European welfare capitalism*. Bloomsbury

Publishing.

Hein, E. & Martschin, J. (2021) Demand and growth regimes in finance-dominated capitalism and the role of the macroeconomic policy regime: a post-Keynesian comparative study on France, Germany, Italy and Spain before and after the Great Financial Crisis and the Great Recession. *Review of Evolutionary Political Economy*. [Online] 2 (3), 493–527. [online]. Available from: https://doi.org/10.1007/s43253-021-00044-5.

Hein, E. & Mundt, M. (2013) "Financialization, the financial and economic crisis, and the requirements and potentials for wage-led recovery," in *Palgrave Macmillan UK eBooks*. [Online]. pp. 153–186. [online]. Available from: https://doi.org/10.1057/9781137357939_7.

Hein, E. & Stockhammer, E. (2010) Macroeconomic policy mix, employment and inflation in a Post-Keynesian alternative to the new consensus model. *Review of Political Economy*. [Online] 22 (3), 317–354. [online]. Available from: https://doi.org/10.1080/09538259.2010.491283.

Hein, E. (2018) Autonomous government expenditure growth, deficits, debt, and distribution in a neo-Kaleckian growth model. *Journal of Post Keynesian Economics*. [Online] 41 (2), 316–338. [online]. Available from: https://doi.org/10.1080/01603477.2017.1422389.

Hein, E. (2023) "From short-run macroeconomics to long-run distribution and growth: a systematic comparison of different paradigms and approaches," in *Edward Elgar Publishing eBooks*. [Online]. pp. 216–241. [online]. Available from: https://doi.org/10.4337/9781803927282.00012.

Hein, E. (2024) Varieties of demand and growth regimes – post-Keynesian foundations. *European Journal of Economics and Economic Policies*. [Online] 20 (3), 410–443. [online]. Available from: https://doi.org/10.4337/ejeep.2023.0103.

Hein, E. et al. (2021) Welfare models and demand-led growth regimes before and after the financial and economic crisis. *Review of International Political Economy*. [Online] 28 (5), 1196–1223. [online]. Available from: https://doi.org/10.1080/09692290.2020.1744178.

Hope, D. & Soskice, D. (2016) Growth models, varieties of capitalism, and macroeconomics. *Politics & Society*. [Online] 44 (2), 209–226. [online]. Available from: https://doi.org/10.1177/0032329216638054.

Höpner, M. (2019) The German undervaluation regime under Bretton Woods: How Germany became the nightmare of the world economy. *Social Science Research Network*. [Online] [online]. Available from: https://doi.org/10.2139/ssrn.3333760.

Howell, C. (2019) Neoliberalism, capitalist growth models, and the state: An agenda for industrial relations theory. *Journal of Industrial Relations*. [Online] 61 (3), 457–474. [online]. Available from: https://doi.org/10.1177/0022185619834047.

Ianni, J. M. (2024) Macroeconomic policy regimes and demand and growth regimes in emerging market

economies: the case of Argentina*. *European Journal of Economics and Economic Policies*. [Online] 21 (1), 90–112. [online]. Available from: https://doi.org/10.4337/ejeep.2023.0113.

Johnston, A. & Regan, A. (2017) Global finance, labor politics, and the political economy of housing prices. *Politics & Society*. [Online] 45 (3), 327–358. [online]. Available from: https://doi.org/10.1177/0032329217702102.

Jungmann, B. (2023) Growth drivers in emerging capitalist economies: building blocks for a post-Keynesian analysis and an empirical exploration of the years before and after the Global Financial Crisis. *Review of Evolutionary Political Economy*. [Online] 4 (2), 349–386. [online]. Available from: https://doi.org/10.1007/s43253-023-00101-1.

Kaczmarczyk, P. (2020) Growth models and the footprint of transnational capital. Maxpo Discus sion Paper, No 20/2, Paris: Max Planck Sciences Po Center on Coping with Instability in Market Societies.

Kaltenbrunner, A. (2015) A post Keynesian framework of exchange rate determination: a Minskyan approach. *Journal of Post Keynesian Economics*. [Online] 38 (3), 426–448. [online]. Available from: https://doi.org/10.1080/01603477.2015.1065678.

Kamyshnykova, E. (2024) Calibrating Ukraine's growth model: How can Ukraine emulate Poland's growth? *Comparative Economic Research Central and Eastern Europe*. [Online] 27 (3), 191–216. [online]. Available from: https://doi.org/10.18778/1508-2008.27.27.

Kohl, S. & Spielau, A. (2022) Centring construction in the political economy of housing: variegated growth regimes after the Keynesian construction state. *Cambridge Journal of Economics*. [Online] 46 (3), 465–490. [online]. Available from: https://doi.org/10.1093/cje/beac015.

Kohler, K. & Stockhammer, E. (2022) Growing differently? Financial cycles, austerity, and competitiveness in growth models since the Global Financial Crisis. *Review of International Political Economy*. [Online] 29 (4), 1314–1341. [online]. Available from: https://doi.org/10.1080/09692290.2021.1899035.

Kohler, K. et al. (2023) House price cycles, housing systems, and growth models. *European Journal of Economics and Economic Policies*. [Online] 20 (3), 461–490. [online]. Available from: https://doi.org/10.4337/ejeep.2023.0121.

Kühnast, J. (2024) Growth regimes of populist governments: a comparative study on Hungary and Poland. *European Journal of Economics and Economic Policies*. [Online] 21 (1), 133–150. [online]. Available from: https://doi.org/10.4337/ejeep.2023.0104.

Labat-Moles, H. & Summa, R. (2024) A supermultiplier demand-led growth accounting analysis applied to the Spanish economy (1998–2019). *European Journal of Economics and Economic Policies Intervention*. [Online] 21 (1), 42–72. [online]. Available from: https://doi.org/10.4337/ejeep.2023.0115.

Lavoie, M. & Stockhammer, E. (2013) “Wage-led growth: concept, theories and policies,” in *Palgrave Macmillan UK eBooks*. [Online]. pp. 13–39. [online]. Available from: https://doi.org/10.1057/9781137357939_2.

Lewis, W. A. (1954) Economic Development with Unlimited Supplies of Labour. *Manchester School*. [Online] 22 (2), 139–191. [online]. Available from: https://doi.org/10.1111/j.1467-9957.1954.tb00021.x.

May, C. et al. (2024) Growth models and social blocs: Taking Gramsci seriously. *Competition & Change*. [Online] [online]. Available from: https://doi.org/10.1177/10245294241231992.

Mertens, D., et al. (2022) Moving the center: adapting the toolbox of growth model research to emerging capitalist economies. Working Paper, No. 188/2022, Hochschule für Wirtschaft und Recht Berlin, Institute for International Political Economy (IPE), Berlin.

Minsky, H. (2016) *Can it happen again?: Essays on Instability and Finance*. Routledge.

Moreno, C. et al. (2014) Commodity price cycles and financial stability. *SSRN Electronic Journal*. [Online] [online]. Available from: https://doi.org/10.2139/ssrn.2594266.

Morlin, G. S. et al. (2022) Growth Theory and the Growth Model Perspective: Insights from the Supermultiplier. *Review of Political Economy*. [Online] 1–26. [online]. Available from: https://doi.org/10.1080/09538259.2022.2092998.

Nikiforos, M. (2018) Some comments on the Sraffian Supermultiplier approach to growth and distribution. *Journal of Post Keynesian Economics*. [Online] 41 (4), 659–675. [online]. Available from: https://doi.org/10.1080/01603477.2018.1486211.

Nikolaidi, M. & Stockhammer, E. (2017) Minsky Models: a Structured Survey. *Journal of Economic Surveys*. [Online] 31 (5), 1304–1331. [online]. Available from: https://doi.org/10.1111/joes.12222.

Ocampo, J. A. et al. (2009) *Growth and policy in developing countries: A Structuralist Approach*. Columbia University Press.

Passos, N. & Morlin, G. S. (2022) Growth models and comparative political economy in Latin America. *Revue De La RéGulation*. [Online] (33 | 2nd semestre), . [online]. Available from: https://doi.org/10.4000/regulation.21444.

Porcile, G. (2022) “Latin American structuralism and neo-structuralism,” in *Oxford University Press eBooks*. [Online]. pp. 50–71. [online]. Available from: https://doi.org/10.1093/oso/9780198850113.003.0003.

Prebisch, R. (1949) *Growth, Disequilibrium and Disparities: Interpretation of the Process of Economic Development*.

Regan, A. & Brazys, S. (2017) Celtic Phoenix or Leprechaun Economics? The politics of an FDI-led growth model in Europe. *New Political Economy*. [Online] 23 (2), 223–238. [online]. Available from:

https://doi.org/10.1080/13563467.2017.1370447.

Reisenbichler, A. & Wiedemann, A. (2022) “Credit-Driven and Consumption-Led growth models in the United States and United Kingdom,” in *Oxford University Press eBooks*. [Online]. pp. 213-237. [online]. Available from: https://doi.org/10.1093/oso/9780197607855.003.0009.

Sanchez-Robles, B. (1998). Infrastructure investment and growth: Some empirical evidence. *Contemporary economic policy*. [Online] 16(1), 98-108.

Sasaki, H. (2021) Thirlwall’s law, uneven development, and income distribution. *Metroeconomica*. [Online] 72(3), 592-611. [online].

Schedelik, M. & Nölke, A. (Forthcoming) Peripheral growth models and the global economy: A second image IPE perspective.

Schedelik, M. et al. (2023) Dependency revisited: commodities, commodity-related capital flows and growth models in emerging economies. *European Journal of Economics and Economic Policies Intervention*. [Online] 20 (3), 515–538. [online]. Available from: https://doi.org/10.4337/ejeep.2023.0107.

Schwartz, H. M. & Tranøy, B. S. (2019) Thinking about Thinking about Comparative Political Economy: From Macro to Micro and Back. *Politics & Society*. [Online] 47 (1), 23–54. [online]. Available from: https://doi.org/10.1177/0032329218796197.

Schwartz, H.M. & Blyth, M. (2022) ‘Four galtons and a Minsky: Growth models from an IPE perspective’, in *Diminishing Returns: The New Politics of Growth and Stagnation*. Oxford: Oxford University Press, pp. 98–114.

Serrano, F. (1995a) Long Period Effective Demand and The Sraffian Supermultiplier. *Contributions to Political Economy*. [Online] 14 (1), 67–90. [online]. Available from: https://doi.org/10.1093/oxfordjournals.cpe.a035642.

Serrano, F. (1995b) ‘The Sraffian Supermultiplier.’ Unpublished PhD Thesis, University of Cambridge, UK.

Shi, Y. et al. (2017) The role of infrastructure in China’s regional economic growth. *Journal of Asian Economics*. [Online] 4926–41. [online]. Available from: https://doi.org/10.1016/j.asieco.2017.02.004.

Shonfield, A. (1965) *Modern capitalism the changing balance of public and private power Andrew Shonfield*. London: Oxford University Press.

Silva, M. V. & Lopes, J. C. (2021) Varieties of capitalism, growth regimes, and structural change in eurozone core and peripheral countries: Germany as a role model for Portugal? *International Journal of Political Economy*. [Online] 50 (4), 272–291. [online]. Available from: https://doi.org/10.1080/08911916.2021.2001249.

Singer, H. (1950) The Distribution of Gains between Investing and Borrowing Countries. *American Economic Review*, Papers and Proceedings. 40, 473-485.

Skott, P. (2019) Autonomous demand, Harrodian instability and the supply side. *Metroeconomica*. [Online] 70 (2), 233–246. [online]. Available from: https://doi.org/10.1111/meca.12181.

Spinola, D. (2020) Uneven development and the balance of payments constrained model: Terms of trade, economic cycles, and productivity catching-up. *Structural Change and Economic Dynamics*. [Online] 54220–232. [online]. Available from: https://doi.org/10.1016/j.strueco.2020.05.007.

Stallings, B. (2024) Changing international hegemony and dependency in peripheral countries: A case study of Latin America. *Competition & Change*. [Online] [online]. Available from: https://doi.org/10.1177/10245294241235686.

Stockhammer, E. & Kohler, K. (2023) "Learning from distant cousins? Post-Keynesian Economics, Comparative Political Economy, and the Growth Models approach," in *Edward Elgar Publishing eBooks*. [Online]. pp. 56–75. [online]. Available from: https://doi.org/10.4337/9781035312757.00006.

Stockhammer, E. & Otero, A. N. (2023) A tale of housing cycles and fiscal policy, not competitiveness. Growth drivers in Southern Europe. *New Political Economy*. [Online] 28 (3), 483–505. [online]. Available from: https://doi.org/10.1080/13563467.2022.2141702.

Stockhammer, E. & Otero, A.N. (Forthcoming) Growth episodes: putting the 'growth' back into growth models.

Stockhammer, E. (2017) Determinants of the Wage Share: A panel analysis of advanced and developing economies. *British Journal of Industrial Relations*. [Online] 55 (1), 3–33. [online]. Available from: https://doi.org/10.1111/bjir.12165.

Stockhammer, E. (2021) Post-Keynesian Macroeconomic Foundations for Comparative Political Economy. *Politics & Society*. [Online] 50 (1), 156–187. [online]. Available from: https://doi.org/10.1177/00323292211006562.

Stockhammer, E. (2023) Macroeconomic ingredients for a growth model analysis for peripheral economies: a post-Keynesian-structuralist approach. *New Political Economy*. [Online] 28 (4), 628–645. [online]. Available from: https://doi.org/10.1080/13563467.2022.2149723.

Storm, S. & Naastepad, C. W. M. (2016) Myths, mix-ups, and mishandlings: Understanding the eurozone crisis. *International Journal of Political Economy*. [Online] 45 (1), 46–71. [online]. Available from: https://doi.org/10.1080/08911916.2016.1159084.

Summers, L. H. (2014) U.S. Economic Prospects: Secular Stagnation, Hysteresis, and the Zero Lower Bound. *Business Economics*. [Online] 49 (2), 65–73. [online]. Available from:

https://doi.org/10.1057/be.2014.13.

Thirlwall, A.P. (1979) The Balance of Payments Constraint as an Explanation of International Growth Rate Differences. *BNL Quarterly Review*. *Banca Nazionale del Lavoro*, [Online] 32(128), 45-53. [online].

UNCTAD. (2021) *State of Commodity Dependence 2021*. Geneva: United Nations Conference on Trade and Development.

Vukov, V. (2023) Growth models in Europe's Eastern and Southern peripheries: between national and EU politics. *New Political Economy*. [Online] 28 (5), 832–848. [online]. Available from: https://doi.org/10.1080/13563467.2023.2189695.

Wood, J. D. G. & Stockhammer, E. (2023) Bringing household finance back in: House prices and the missing macroeconomics of comparative political economy. *Politics & Society*. [Online] [online]. Available from: https://doi.org/10.1177/00323292231201480.

Woodgate, R. et al. (2023) Components of autonomous demand growth and Financial feedbacks: Implications for growth drivers and growth regime analysis. *Review of Political Economy*. [Online] 36 (5), 1876–1893. [online]. Available from: https://doi.org/10.1080/09538259.2023.2269369.