

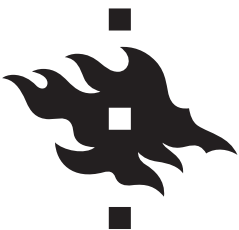
**HELSINKI GLOBAL
POLITICAL ECONOMY
WORKING PAPERS**

10/2026

REVISITING FRIEDRICH LIST IN A TIME OF CRISIS:

**FIVE LESSONS FOR EUROPEAN
ECONOMIC AND INDUSTRIAL POLICY**

TAMÁS TIBOR CSONTOS & HELENA DRDLOVÁ



UNIVERSITY OF HELSINKI

How to cite the paper: Csontos, Tamás Tibor & Drdlová, Helena (2026). Revisiting Friedrich List in a time of crisis: Five lessons for European economic and industrial policy. Helsinki Centre for Global Political Economy Working Paper, 10/2026. Helsinki: University of Helsinki, available at <https://www.helsinki.fi/en/networks/global-political-economy/working-paper-102026>

Helsinki global political economy working papers
ISSN 2670-3300 (print)

Helsinki global political economy working papers
ISSN 2670-3319 (online)

Helsinki Centre for Global Political Economy “Working Paper”

aims to present new ideas and preliminary research results on the Global Political Economy. Many papers are in the process of becoming peer-reviewed publications. All comments and feedback are welcome and should be directed to the authors. We encourage scholars working on global political economy to offer their papers for publication as well as to inform us about potential papers on the field. All published papers are advertised on Helsinki-GPE social media accounts.

Submission guidelines

Papers should be submitted to a Steering Group member; the Group reviews their eligibility for the series. The copyright remains with the author(s). It is up to the author to ensure that pre-publishing their research as a working paper will not jeopardize their chances of publishing in peer-reviewed journals. For more details, see <https://www.helsinki.fi/en/networks/global-political-economy/working-papers>.

HELSINKI CENTRE FOR GLOBAL POLITICAL ECONOMY

University of Helsinki
Helsinki, Finland
Telephone: +358-(0)40-5184854
Email: gpe@helsinki.fi
helsinki.fi/gpe



TAMÁS TIBOR CSONTOS

ELTE Centre for Economic and Regional Studies

Tóth Kálmán utca 4, 1097 Budapest, Hungary

csontos.tamas@krtk.elte.hu

Orcid ID: 0000-0002-5366-8309

HELENA DRDLOVÁ

University of Helsinki, Faculty of Social Sciences

P.O. Box 54 (Unioninkatu 37)

00014 University of Helsinki

Finland

helena.drdlova@helsinki.fi

Orcid ID: 0009-0005-3876-3825

BIBLIOGRAPHICAL NOTE:

Tamás Csontos, Junior Research Fellow at ELTE, works on the political economy of Central and Eastern Europe, comparative political economy and the middle-income trap. He is currently completing his doctoral dissertation at the Corvinus University of Budapest.

Helena Drdlová, a Doctoral Researcher in World Politics at the University of Helsinki, works on the political economy of Central and Eastern Europe with specific focus on the region's industrial policy.

ACKNOWLEDGEMENTS:

We are grateful to László Trautmann, Heikki Patomäki and Matti Ylönen for their helpful comments and insights.

REVISITING FRIEDRICH LIST IN A TIME OF CRISIS: FIVE LESSONS FOR EUROPEAN ECONOMIC AND INDUSTRIAL POLICY

Abstract: In recent years, Europe has faced a rising number of geopolitical challenges, among which one of the most significant is its technological lag behind the US and China. This concern is reflected in the EU policy debates and calls for the closing of the technological gap. We frame this trend as part of a peripheralization process that Europe finds itself in the midst of. Specifically, we explore the growing technological dependency as a symptom of an external peripheralization (i.e. Europe's drift towards economic and geopolitical marginalisation), and connect it with the problem of internal peripheralization that exists on Europe's North-South and West-East axes. We ask what has led to Europe's technological lag and to the mutually reinforcing dynamics of external-internal peripheralization.

We turn for answers to the writings of the 19th century German economist Friedrich List. His work, centred around themes of economic development, dependency, and catching-up strategies, offers key lessons for Europe's new economic and industrial policy that might address the problem of technological dependency while also alleviating the pressures of internal peripheralization. Specifically, we argue based on List that the extractive nature of European economic integration has to change; that the exaggerated focus on short-term market competitiveness should be replaced by a long-term nurturing of production powers; that Europe needs more active and comprehensive industrial policy; that technological progress should be reframed as a process of never-ending reinvention that requires strong public guidance; and that public interest should take a more prominent role in the development process. We believe that Listian reading of Europe's technological and economic dependency might offer a new pathway towards addressing these issues, mitigating the process of external-internal peripheralisation, and ultimately strengthening European integration and Europe's position in the increasingly volatile international environment.

INTRODUCTION

In recent years, Europe has faced a rising number of geopolitical challenges, among which one of the most significant is its technological lag behind the US and China. Over the past decades, Europe has been unable to keep pace with the technological development trajectory set by these two global powers. The continent is highly dependent on US digital technology companies and, to a lesser extent, also on Chinese ones. These dependencies have reached a point where Europe's digital sovereignty is increasingly at risk or has already been compromised, carrying concerning geopolitical implications. This has become particularly evident as the US has begun to use its technology policy more explicitly as a geopolitical instrument. As a result, technological lag is gradually becoming a strategic challenge that threatens the political autonomy of the EU and the future of Europe as a whole. Moreover, technological dependencies contribute to widening economic gaps, contributing to clear welfare challenges across the continent.

This concern is reflected in the EU policy debates, most notably the Draghi report, which calls for the closing of the technological gap between Europe and the US and China, and warns against dependencies that negatively affect “European freedom” (European Commission 2025). In this article, we argue that this trend is part of a peripheralization process that Europe finds itself in the midst of¹. Specifically, the growing technological dependency should be understood as a symptom of an external peripheralization—the gradual weakening of Europe's position in the global economy, including a growing technological lag, and the resulting drift toward geopolitical marginalization. As we argue throughout this article, the fear of external peripheralization has increasingly moved to the forefront of discussions about Europe's future—not only economically, but also politically.

However, we argue that the process of peripheralization takes place on two intertwined levels. Alongside the emergence of external technology and economic divides, Europe is also shaped by internal peripheralization, which greatly contributes to its political, economic, and societal crisis. Internal peripheralization has long been embedded in the political and economic structure of the continent along both the North–South and the West–East axes. However, these dynamics have intensified over the past decade and a half, marginalizing regions on Europe's periphery and increasingly contributing to inner turmoil that weakens the EU and the continent as a whole. Moreover, they go largely unnoticed on the level of EU policy, including the absence of discussion on regional production capabilities in the wider debate on EU industrial policy. The Draghi report, in recent years the most important EU strategic document, has been criticized

¹ The various aspects of European peripheralization and its connections to the rise of illiberalism are explored by Kalmar (forthcoming), where our use of the concept originates.

for its attempts to model the European development model overtly on the US example while lacking a robust federal budget, operating on a limited (neoliberal) model of industrial policy, neglecting the need for green and social investment, and contributing to the increase of securitization, authoritarianism and weaponisation of interdependence (EuroMemo Group 2025). Our article aims to show that any debate on the future of the European economy, especially if centred on the aim to become more internationally (i.e. “externally”) competitive, must take into account the production capabilities and development of Europe’s peripheral regions.

In this article, we ask what has led to Europe’s technological lag and to the mutually reinforcing dynamics of external-internal peripheralization. We argue that the dominant European development model of the past decades has been grounded in neoliberal principles, which deepened internal peripheralization, weakened the European economy and the continent’s political unity, and ultimately contributed to the widening of technological gaps as symptoms of Europe’s external peripheralization. In the form of a thought experiment, we present an alternative framework of a new development model that would address the problem of technological dependency while also alleviating the pressures of internal peripheralization. The inspiration for our proposal comes from the writings of the German economist Friedrich List, whose work centred around the themes of economic development, dependency, and catching-up strategies. The generalisation and deliberate omission of List’s ideas from the mainstream economics discussion, rooted in a superficial reading of his work, contributes to the underdevelopment of these themes. In this article, we present a Listian interpretation of the challenges faced by the contemporary European economy and identify five key lessons that can be drawn from his work.

We argue that Europe will only be able to overcome its technological lag if it learns from these lessons and strengthens its technological and political autonomy. This requires, on the one hand, the strengthening of shared European production capacities and implementation of a more active and comprehensive industrial policy. On the other hand, it also demands renewed efforts at the level of individual member states, as the strengthening of national capabilities is essential for preventing further internal peripheralization. A strong, resilient Europe can only be built upon prospering European nations—and vice versa, strong nations can also only exist within a Europe endowed with a stable, inclusive, bright-looking future.

WHAT TROUBLES EUROPE² IN 2026: ON THE EXTERNAL AND INTERNAL PERIPHERALIZATION

Over the past decades, Europe's technological dependencies have intensified significantly. These are particularly visible in the fields of cloud-based services and digital infrastructures, which are dominated by major American corporations such as Amazon, Microsoft, and Google (Synergy Research Group 2025). Concerns have also risen around European dependency on American defence technologies, e.g. in the realm of space defence (Süß 2026). More recently, similar asymmetries have begun to emerge in the artificial intelligence revolution, where large-scale AI development is largely concentrated in the US and China, while the EU occupies, at best, a follower position. Such dependencies open the risk of technological dependencies being weaponized, turning them into instruments of political pressure and potentially undermining Europe's sovereignty. These technological gaps and dependencies form part of a broader pattern of Europe's relative economic decline, which we described as a process of external peripheralization. In other words, in the domain of leading digital technologies, the EU appears to be gradually shifting from a core position toward a more peripheral role in the global economy and struggling to keep pace with economies at the technological frontier.

While many are sounding alarm bells when it comes to Europe's international lagging behind, few analyses make an explicit connection with the bloc's inner developments. We argue that the problem of the internal peripheralization concerns primarily the regions on Europe's southern and eastern flanks. Europe's core countries, consisting loosely of the "old" EU members, are tied to both peripheries through a network of dependencies, including trade and investment relations, Eurozone fiscal constraints, and conditionalities attached to the debt crisis bailout packages. The export-led model of the core has been interconnected with those of the Southern and Eastern peripheries in a mutually dependent, but hierarchically unequal fashion since the pre-2008 era. As Stockhammer et al. (2016) argue, this relationship of dependency ultimately contributed to the outbreak of the Eurozone crisis, when the debt-driven, financially dependent development model of the Southern periphery collapsed. The Eastern periphery retained its function as a manufacturing hinterland, providing low-cost labour for

² In the article we refer at different times to both the EU and Europe; the former referring to the EU as a political unit, its institutions and member states, the latter to the broader conception of Europe, which comprises not only of the EU, but also other regions adjacent to it, such as the Balkans and non-EU Eastern Europe, and indirectly even more remote regions such as the Caucasus, parts of the Middle East and North Africa. We do not use the two terms as interchangeable, since simplifying "Europe" to mean solely the EU would obscure the complex realities experienced by the non-EU European regions. At the same time, we want to stress the interdependence of the two, organized to a large degree within the core-periphery structure, and call for a broad, inclusive conception of Europe that actively tackles the problem of (internal) peripheralization both inside and outside the EU borders.

the production capacities of exporting core economies, while profits were repatriated to the core; however, the slowdown of foreign investment coming from the core countries, combined with their weakening demand, ultimately disrupted the Eastern periphery's model as well (e.g. Galgóczi et al. 2015).

The nature of the internal peripheralization remains complex, and its examination is not the core focus of this article, as this would require us to open a substantial new discussion. The most robust collection of research on the European periphery exists within the Comparative Political Economy (CPE) literature. It analyses the Southern European countries debt-driven growth model in the years before the Eurozone crisis (e.g. Bacarro and Pontusson 2016; Hall 2018; Burroni et al. 2021), as well as their (in)ability to integrate in the European economy under the new austere, export-driven growth regime (Johnston and Regan 2018; Bürgisser and Di Carlo 2023); meanwhile CPE research on the post-socialist Central and Eastern European countries evolved into a substantial criticism of the FDI- and export-driven growth of the Eastern periphery, summarized under the “dependent market economy” argument (e.g. Nölke and Vliegenthart 2009; Bohle and Greskovits 2012; Gál and Lux 2022). What the CPE literature describes (although seldom explicitly) is a dual nature of the peripheral regions' relationship with the core. This is both extractive in the way formulated by the dependency theory, i.e. the metropolis expropriating economic surplus from its satellites and appropriating it for its own development (e.g. Frank 2009); and restrictive in a Listian way, i.e. limiting (through direct ownership ties and the broader structure of the European economy) the type of activities the peripheral economies can participate in. Within this framework, the nature of the internal peripheralization can be understood as:

- **Slow and uneven economic convergence with the core.** The existing research tends to confirm the persisting core-periphery structure of the European economy: for instance, Kersan-Škabić (2020) conducts a cluster analysis using several macroeconomic indicators (GDP per capita, GDP growth, migration flows etc.) and concludes that core-periphery relations are present despite the convergence process, and that the European periphery includes both the Southern European and post-socialist countries. While other studies confirm convergence for countries on the Eastern periphery, they emphasize the role of the catching-up effect (Török 2025), which is largely based on external inputs. While data on wage convergence are scarce, national (e.g. ČMKOS 2019) and sectoral evidence (e.g. Pavlínek et al. 2017, 28; Pavlínek 2023, 215) suggests that the gap between the core and peripheries remains significant. Furthermore, the pattern of convergence is highly uneven: while economic convergence of the most peripheral countries (e.g. Greece) is essentially non-existent

(e.g. Theodoropoulou 2022) and even on the Eastern periphery we find significant differences (Poznańska and Poznański 2015), the most notable outliers tend to be countries that have been active in expanding their (Listian) productive capabilities (e.g. Spain, Poland, Estonia).

- **Investment and ownership ties are extending from the core to the peripheries, with significant profit flows going in the other direction.** The dominance of foreign ownership over domestic (export-oriented) manufacturing, as well as other sectors (e.g. banking, retail), accompanied by profit outflows and limited levels of reinvestment, represents the extractive side of the core-periphery dynamic. This relationship is examined by the CPE literature (e.g. Nölke and Vliegthart 2009; Gál and Lux 2022), as well as by sectoral studies also including countries on the Southern periphery (Pavlínek et al. 2017), and national studies of the profit outflows (Chmelař et al. 2016).
- **The peripheral regions are generally not sources of innovation-driven growth.** As is shown e.g. by the European Innovation Scoreboard, the peripheral countries have only limited innovation capabilities in comparison with the core (e.g. European Commission 2024), illustrating the restrictive side of the core-periphery dynamics. Research shows that countries on the Eastern periphery should still be viewed mostly as “factory economies” within the European value chains (Kordalska et al. 2022), while the most peripheral countries (especially on the Southern periphery) suffer from being excluded from manufacturing production altogether and relegated to specializations such as tourism (Bürgisser and Di Carlo 2023).

What we do aim to make a central focus of the article is the examination of the impacts of internal peripheralization on Europe’s marginalization in the international context, including its growing technology dependency. The thought experiment nature of the article allows us to explore alternative scenarios in which the production capacities of the peripheral regions are supported, not constrained by the European economic structure, which allows them to contribute more substantially to the overall European development. We may imagine that in these alternative scenarios, Greek economy centres around shipbuilding instead of mass tourism, providing both “good” manufacturing jobs to the local population and to Europe an access to a strategically important industry (in reality, Greek shipbuilding remains marginal, and the port of Piraeus, one of the largest in Europe, is under a Chinese lease); the Visegrad Four countries have contributed their skilled engineers to the development of Europe’s very own electric ve-

hicles over the course of the 2010s, which allowed the European automotive industry to gain a head start on the green transition (meanwhile in reality, the industry profoundly underestimated the need for early investment in technological development and relied on combustion engine production even at the cost of fraud, as is illustrated by the Dieselgate affair); and a burgeoning Baltic ICT and defence tech sector provides a first line of defence against Russian hybrid warfare (while ICT and defence industry do in fact exist in the Baltic region, their emergence is still relatively limited and takes place in economies otherwise struck with low productivity; see e.g. Raudvere and ETAG 2023).

What these alternative scenarios show is that the underdevelopment of countries on the periphery is not only a national or regional problem. On the contrary: the limitations to the abilities, skills, and potential of people in the peripheral economies prevent them from contributing to the development of Europe as a whole. We argue that more has to be done to bring forth these alternative scenarios, and that alleviating the pressures of internal peripheralization would open up new capacities for Europe's development at the technological frontier, including helping to close the technological dependency gap.

We argue that the problem of mutually reinforcing external-internal peripheralization must be addressed in Europe's new development model, which should adopt more principles from the developmentalist economic tradition, while taking a more critical stance towards the practice of closely tying economic policy-making to standard textbook economics (argument made e.g. by Reinert 2006, 3). There are several fundamental building blocks in the neoliberal structure of the European economy that need to be rethought in order to address the peripheralization(s) problem:

1. **The extractive integration:** The integration of both the Southern and Eastern periphery took place within an extractive framework that largely overlooked other possibilities for these regions' developmental trajectories. Rather than integration among equal partners, the process took place as a hierarchical process of subordination, with the core countries not perceiving the peripheries as equal partners in development. Instead, a dependency based on peripheral export-driven growth (in the case of the Eastern periphery) or debt ties (in the case of the South) was established, often with the support of local elites. While EU cohesion policies provide some degree of mitigation to these imbalances, most peripheral regions have persistently remained lagging behind.
2. **The exaggerated focus on short-term market competitiveness:** The mechanism of extractive integration was part of a larger historical process in which, following the neoliberal turn of the 1980s, European countries' devel-

opment model was dominated by the imperative of market competitiveness. As a result, short-term gains in the global market became the sole measure of development. European nations competed in the global markets by cutting costs, a process compounded by the extractive integration of the Eastern periphery. This focus on cost competition overshadowed the importance of competing in technological development, which contributed to Europe falling behind in this area. European economies subordinated their industrial structures to the market mechanism, which has undermined their production and technological capacities in the long term and culminated in the external peripheralization.

3. **The lack of (more active and comprehensive) industrial policy:** The neoliberal framework led to a silent acceptance of deindustrialization, a process with significant social, political, and cultural impacts. That is true not only for the peripheral EU member countries, but also for other European economic and political peripheries (e.g. the Balkans or Eastern European countries) and for peripheral regions in countries of the “core.” Prolonged deindustrialization leads to a loss of complex production capabilities, tacit knowledge, and market shares, as well as to a growing support for anti-systemic political parties, all rendering the EU and European countries poorly positioned to navigate the turbulent global environment. The dominance of competition policy overshadowed the need to develop efficient industrial policy, which consequently became an obstacle to technological development.
4. **Mishandled approach to technological development.** Subsequently, due to an excessive focus on cost competitiveness and a lack of active and comprehensive industrial policy, European countries ignored the fact that it is not enough to follow the markets in order to achieve technological development, but that the markets must be led, which requires a more public guidance of the process (Susskind 2024). Its lack leads to Europe lagging behind in the process of constant technological reinvention. While the Draghi report acknowledges that the European economy is overly focused on mature industries and suffers from technological gap to the US and China, it remains silent on the role of the periphery in this situation, i.e. on the fact that the (inter)dependency that characterizes Europe’s economic structure leads to a limited space for technological innovation in the peripheral region and limits incentives for innovation in the core regions.

- 5. The dominance of private over public interests:** These mistakes can all be traced back to the private interest's role in economic development within the neoliberal paradigm, i.e. the assumption that, in order to develop, we must remove anything that stands in the way of private interests while pushing public interests into the background. According to the neoliberal argumentation, this is because private interests should be considered supreme on the principle of individual freedom. However, as Stiglitz (2024) points out, this instead leads to a false ideal of freedom—the freedom to exploit.

Europe's current crisis is therefore not only political, stemming from these five elements of the neoliberal paradigm that have dominated the EU's development model in recent decades. It is to some degree also a crisis of the underlying theoretical assumptions about economic development. We argue that answers to the problems cannot be found within the very framework that created them in the first place. To outline a new framework that takes into consideration these problems as symptoms of the external-internal peripheralization, we look to the past and revisit the overlooked tradition of developmentalist economics: specifically, the writings of Friedrich List, which can cast valuable new light on these five central problems.

FRIEDRICH LIST AND THE DEVELOPMENTALIST TRADITION

Since its inception, the economics discipline has been defined by the co-existence of different (and often competing) theoretical traditions. Tabb (1999) calls these type A and B economics: the former based on the conception of the economy as a mechanical system, focusing on the importance of market equilibrium, and drawing parallels from abstract natural sciences such as physics; the latter understanding the economy as a system of social relations, constantly evolving instead of prone to equilibrium, and drawing from less abstracting scientific disciplines such as biology. A specific division between two theoretical camps (roughly corresponding to the line between A and B economics) also exists when it comes to questions of economic policy and development. Labelled by Reinert and Kattel (2024) as the “standard” canon and “the other canon”, it identifies a division between those who argue for free trade as a primary source of development and those who emphasize production, specialization in dynamic knowledge-intensive economic activities, and stress the existence of the international division of labour (with its geopolitical implications).

What we broadly label here as the “developmentalist” tradition is situated within “the other canon”, encompassing works spanning from the cameralists and the German historical school to Schumpeterian economics with its focus on innovation as the core of

the development process, scholars of development economics (e.g. Albert O. Hirschman or Erik Reinert), the post-war students of the East Asian developmental state (such as Chalmers Johnson and Alice Amsden), and the contemporary theoreticians of the new industrial policy (Dani Rodrik, Ha-Joon Chang, Mariana Mazzucato and others). While far from a unified school of thought, we argue that these scholars share an interest in development as a process driven by technological progress that can be studied and improved by different forms of public intervention. Since the 1980s, the contrasting neo-liberal idea of development as a natural process that flourishes the most when undisturbed has relegated the heterogenous developmentalist tradition to the background of both the European and, to some degree, global discourse. We call for its bolstering in both the academic and policy debate as an important instrument in tackling today's societal, economic, and ecological crises. In order to do so, we turn to the works of the German economist Friedrich List (1789-1846), who was among the founding fathers of the developmentalist tradition.

Born in 1789 in the city of Reutlingen in what is today western Germany, Friedrich List made a living first in the administration of his native Württemberg. A central subject of List's work has been the ongoing process of German unification, especially its economic foundations. This earned him not only praise and recognition but also numerous personal attacks and, in his early years, even imprisonment and exile. While List's primary focus has been on the German-speaking world, he also spent time in France, Switzerland, and the US (between 1825 and 1833). The years spent in the US had a decisive influence on List's work, giving him access to the American economic debate at the time and exposing him to the economic argumentation of other developmentalist thinkers, such as Alexander Hamilton, the spiritual father of American industrial policy. List was widely read outside Germany, from France and Britain to the US, as well as in Central Europe.

List's most famous book, *The National System of Political Economy*, was published in 1841, i.e. relatively shortly preceding events of the revolutionary year 1848 and the first unsuccessful attempt at German unification. The book presented an economic justification for the unification of German lands and sought to outline a new theoretical framework for economic development that would contrast with the popular "cosmopolitical" school of political economy, traced back to Adam Smith, which forms the foundations of the "standard" canon of theories on economic development. List identified *nationality* as a distinguishing characteristic of his system of political economy. According to his argumentation, nationality was a missing link between the *individual* and global levels of analysis (List 1909, 25), central to the cosmopolitical school. From it, List sought to devise a theory of the powers of production focused on explaining the developmental impacts of manufacturing and exploring the principle of division of labour extended to

an international level, concepts he argued were missing from the cosmopolitical theory of values (List 1909, 24).

In the contemporary mainstream discourse, List is a peripheral and rather controversial figure, often presented as an advocate of trade protectionism, mercantilism, and, in the most critical takes, as an intellectual predecessor of the 20th-century German expansionism. However, we argue that this is a generalisation of List's ideas, rooted in a superficial reading of his work, which contributes to his deliberate omission from more mainstream discussions that still view the developmentalist tradition with suspicion. As we show in this article, List never advocated for trade protectionism as an end in itself, and did not support protectionist policies, economic nationalism, and industrial policy practices out of narrow nationalist motives. Instead, List saw the role of freedom in economic development as indispensable, and from this perspective attacked the cosmopolitical theory (and especially its more vulgar interpretations), arguing that commercial freedom has a tendency to jeopardize individual freedoms, pushes poorer nations into servitude, and denies them the opportunity to develop. In his opinion, the cosmopolitical approach underestimated or outright ignored this tendency. List's approach was neither chauvinistic nor mercantilist; rather, he viewed protectionism as an indispensable instrument in the development process that contributes to the progress of the whole of humanity.

In our search for a new framework for understanding and improving European economic and technological development in the 21st century, we argue that revisiting List's work is essential. As one of the founding voices of the developmentalist tradition, List presents a fresh perspective on the role of production powers and industrial policy; his views on the problems of development, approached inherently from the perspective of an outsider striving to catch up, are highly instructive for the problem of the European periphery and its role in the international division of labour; and finally, his focus on the political economy of German unification remains relevant for the process of European integration. Drawing from List's magnum opus, we present five important lessons that are relevant to the problems of contemporary Europe and can contribute to the emergence of a new development framework.

Lesson one: Inclusive integration as a path towards the global rule of law

The project of European integration is founded on the desire of its members to form an ever-closer union of the integrating nations, stripped of obstacles to economic and social progress, including differences between more and less developed regions, in order to “preserve and strengthen peace and liberty” of the European people (as defined by the Treaty of Rome). While the challenge of integrating regions at different levels of development was less pressing in the beginning of the European integration project

(as all parties were at roughly comparable economic levels), the expansion to Southern Europe, as well as later enlargement to the post-socialist Central and Eastern European region, made these questions more relevant. As we argue above, the Southern and Eastern periphery is characterized by persisting underdevelopment in comparison with the European core, including investment and technological dependencies, heightened risk of deindustrialization, persistent wage gap, and overall lower living standards. We argue that Listian reading of the process of European integration, especially its recent decades, exposes structural inequalities at the heart of the project, and explains why the various development gaps persist. These inequalities are a foundation for the existence of the internal periphery. Below, we examine List's view on the ultimate objective of economic, technological and social development, explain the logic behind his justification for protectionism as a part of a nation's development strategy, and apply his framework to the project of European integration.

For List, the ultimate goal of rational politics is *“the uniting of all nations under a common law of right”* (List 1909, 277). Translating the idea into a modern conceptual framework, we may interpret it as the establishment of global governance based on a common legal order that stands above all nations and in which all nations can participate on an equal footing, thereby eliminating core–periphery power hierarchies. We will refer to List's ultimate objective as the “global rule of law”. Such a system, in List's view, would ensure a harmonious and conflict-free development of the world economy. Its realization is made possible through technological and civilisational progress. As List argues, *“we need only hint at the progress made in sciences, arts, and discoveries, in industry and social order. It may be already foreseen with certainty, that after a lapse of a few decades the civilised nations of the earth will, by the perfection of the means of conveyance, be united as respects both material and mental interchange in as close a manner as (or even closer than) that in which a century ago the various counties of England were connected”* (List 1909, 100). For List, civilizational progress from the primitive state of the human race towards the global rule of law is achieved through a continuous process of unification: of families, then towns, countries, and finally unions of several states under the same government (List 1909, 100).

This state of humankind's development is something List shares with the cosmopolitical school of Adam Smith, and he makes it clear that the science of economics must be evaluated in light of achieving this ultimate objective: progress and unity on the level of whole humankind, achieved for the benefit of all individuals. The fundamental flaw of the cosmopolitical theory, according to List, is that it confuses reality with the desired final state: *“The popular school has assumed as being actually in existence a state of things which has yet to come into existence”* (List 1909, 101). In other words, the cosmopolitical theory already assumes the global rule of law to be in place, instead of a state

of things to strive towards. The cosmopolitical economists of the classical era downplay or outright ignore the role of the national in development towards the ultimate objective: Quesnay imagines that “the merchants of all nations form one commercial republic” (List 1909, 97), Smith advocates for the “absolute freedom of the commerce of the whole world” (List 1909, 97), and Say may recognize the existence of national (political) economy, but only treat the cosmopolitical economy as truly important (List 1909, 98).

If we assume that the global rule of law has already been established, List explains, a call for global free trade and removal of barriers to individual entrepreneurial efforts is perfectly reasonable: “*The less every individual is restrained in pursuing his own individual prosperity, the greater the number and wealth of those with whom he has free intercourse, the greater the area over which his individual activity can exercise itself, the easier it will be for him to utilise for the increase of his prosperity the properties given him by nature, the knowledge and talents which he has acquired, and the forces of nature placed at his disposal*” (List 1909, 99). This is a logic clearly recognizable from the mainstream economics’ justification for free trade. However, if we accept List’s argument that such a state of things is far from already achieved, this assumption leads to misguided conclusions about the development strategies a nation should adopt.

In contrast to the cosmopolitical school, List argues that the gap between the valid normative assumption of the existence of the global rule of law and the actual historical conditions must be bridged by a political economy situated at the level of nations. This national political economy, he writes, “*teaches how every separate nation can be raised to that stage of industrial development in which union with other nations equally well developed, and consequently freedom of trade, can become possible and useful to it*” (List 1909, 102). This can be seen as an early formulation of the “developmentalist” tradition. As different nations are at different developmental stages, “*the result of general free trade would not be a universal republic, but, on the contrary, a universal subjection of the less advanced nations to the supremacy of the predominant manufacturing, commercial, and naval power*” (List 1909, 101). A global rule of law cannot be established in a situation where the wealth and productive powers of some nations greatly exceed those of others, since the result would instead be absorption of the weaker by the more powerful. It is the task of the national political economy “*to accomplish the economical development of the nation, and to prepare it for admission into the universal society of the future*” (List 1909, 132).

The problem of integration between economically unequal regions is where List’s argumentation in favour of protectionism comes into play. As unification is generally beneficial, but integration between unequally strong partners leads to submission of one party to the other, List argues for trade protectionism as a way of ensuring that the process takes place only between actors that can both benefit from it. As he argues, the

correct strategy for a nation is “*in the first stage [of development] adopting free trade with more advanced nations as a means of raising themselves from a state of barbarism, and of making advances in agriculture; in the second stage, promoting the growth of manufactures, fisheries, navigation, and foreign trade by means of commercial restrictions; and in the last stage, after reaching the highest degree of wealth and power, by gradually reverting to the principle of free trade and of unrestricted competition in the home as well as in foreign markets*” (List 1909, 96). Protectionism is therefore only justified if it promotes a nation’s industrial and cultural development in order to participate in the global integration process, if it serves as a tool that equalizes nations and helps them to overcome servility; while List remains highly critical of harmful or misguided protectionist policies that do not serve such a purpose.

In List’s view, a global rule of law cannot be achieved by the economic expansion of the hegemon – in List’s time Britain – over the rest of the world, and the denationalisation of the subjugated countries. Instead, every nation should adopt strategies that will help it to nurture and develop its key manufacturing industries and enter the cosmopolitan stage as an equal partner to the other industrialized nations. In other words, instead of the economic hegemon uniting all less developed nations under its control, countries should each become a “little Britain” in its own right. As List explains, “*the culture and civilisation of the human race can only be brought about by placing many nations in similar positions of civilisation, wealth, and power; that just as England herself has raised herself from a condition of barbarism to her present high position, so the same path lies open for other nations to follow: and that at this time more than one nation is qualified to strive to attain the highest degree of civilisation, wealth, and power*” (List 1909, 250–51).

With the argument that “the art of becoming a little Britain” lies at the heart of a successful integration of nations into one political entity, let us turn back to the process of modern European integration. Since the EU consists of member states with unequal levels of development, we argue that a Listian reading of the situation is highly relevant: the European integration process may take the form of a constructive “admission” of a less developed country into the European community after it has sufficiently developed its domestic economy; however, it may also resemble more of a subordination to the economic and political hegemon. We illustrate on the example of integration of the post-socialist Central and Eastern European countries that a neoliberal integration of less developed economies into a common market is riddled with contradictions and does not guarantee progress towards List’s ultimate goal of uniting all nations under a shared rule of law.

The dynamics of the relation between the European core and its Eastern periphery show the risk of the integration process becoming increasingly extractive. The Central

and Eastern European region, which has traditionally been less developed than Western Europe, emerged from decades-long stagnation of the central planning era and a deep transformation crisis in the early 1990s, struggling with deindustrialization, collapse of living standards, brain drain, and inability to achieve (product) competitiveness on global markets (Myant and Drahekoupil 2011). Its integration into the European economic structures (opening of borders to trade, investment, and labour (e)migration) has taken place within a relatively short span of time and under conditions that incentivized economic openness and limited focus on the development of domestic production capabilities (e.g. Vukov 2020; Kuc-Czarnecka et al. 2021). The general assumption was that the Eastern periphery would be lifted by integrating into the dominant German economic sphere and that the region would become part of the manufacturing backbone of German industry.

While the FDI- and export-driven growth delivered a short “golden era” in the 2000s, the assumption was mistaken in the long run. Without being given the chance to develop endogenous manufacturing capacities and to become a “little Germany” in its own right, the post-socialist region has been largely relegated to the position of an assembly periphery, dependent on technology transfers and investment coming from the European core, but unable to nurture and develop its own production powers on a large-enough scale (e.g. Gál and Lux 2022). As the core itself faces mounting pressures and ceases to be able to provide investment, technology transfers, and demand for the Eastern periphery’s goods, the hollowness of the post-socialist development model is increasingly evident, and the region finds itself in an ever more precarious and politically subordinate position.

The Listian reading identifies the problem of internal peripheralization (which is to a large degree the result of integration between unequal economic partners) as a core dysfunction of the European economy, which has numerous negative impacts on European citizens, the political unity of the EU, and Europe’s global technological and geopolitical standing. The Listian logic necessitates a change in the core of the European economic structure, which would elevate the peripheral regions to a position of equal partners. As we argue, such change would require the regions to abandon the (to some degree comfortable) position of suppliers and to begin nurturing their own domestic production capacities.

Lesson two: The powers of producing wealth are central to the development process

One of the main concerns of the Draghi report and the general mainstream discourse is the deterioration of European production capabilities. While this line of thought has been present in European development thinking at least since the early 2010s, we ar-

gue that when perceived through the Listian lens, there are two serious problems with it. First, the EU's industrial policy does not fully commit to reorienting the paradigm towards developing Europe's production powers in a way that would be comparable with the US and China. Second, the special role of the peripheries with their limited production and innovation capacities remains blatantly omitted. As a result, European companies' position on global markets keeps deteriorating, which leads to economic stagnation and deepening deindustrialization.

The central focus of List's inquiry into the systems of national political economy is the study of powers of producing wealth (in opposition to the study of wealth itself) and the distinction between productive powers and the values of production. In List's words, "*the forces of production are the tree on which wealth grows*" and "*the tree which bears the fruit is of greater value than the fruit itself*" (List 1909, 53–54). Just as someone who wins the lottery may quickly squander their fortune if they lack the knowledge to manage it wisely, a nation that lacks the productive capacities to regenerate its wealth will inevitably decline. As List aptly summarises: "*The causes of wealth are something totally different from wealth itself. A person may possess wealth, i.e. exchangeable value; if, however, he does not possess the power of producing objects of more value than he consumes, he will become poorer. A person may be poor; if he, however, possesses the power of producing a larger amount of valuable articles than he consumes, he becomes rich*" (List 1909, 106). Here lies the paradigm shift: nations that want to achieve sustained development should focus not merely on the market value of current production, but on the productive powers—the knowledge, institutions, education, industrial and technological capacities—that enable the continuous creation of such value.

List further argues that productive powers should be developed even at the expense of temporary scarcity (e.g. List 1909, 112–13). He illustrates this principle with a story of two landowning families of equal fortune, of which one puts out its savings at interest and keeps its children in common (manual) labour, while the other invests parts of the savings in giving the children an education. In the short-term, this results in a loss of access to the part of fortune that has been used to pay for the children's education; in the long run, however, the benefits outweigh the sacrifices. While in the former family, upon the death of the older generation the estate is divided equally among the children who can only continue to work on it using their manual labour, in the latter some children will be able to secure means of subsistence independent of the estate (i.e. the original fortune will be divided into fewer pieces) and they will apply the education they obtained into improving the functioning of the estate. As List writes: "*A mass of different mental forces and talents is awakened and cultivated, which will increase from generation to generation, every succeeding generation possessing more power of obtaining materi-*

al wealth than the preceding one” (List 1909, 109). A nation’s true wealth, List argues, does not lie in its current stock of goods or monetary value, but in the accumulation of knowledge, skills, and institutional strength that enable such wealth to be reproduced over time.

List criticizes the cosmopolitical school’s excessive focus on the existing wealth (especially material) and on the value of exchange as “the sole object of its investigations” (List 1909, 111). The cosmopolitical school’s view is static, as it focuses primarily on the sum of wealth currently possessed; meanwhile List’s theory of the productive powers is implicitly dynamic: for him, the prosperity of a nation lies not “*in the proportion in which it has amassed more wealth (i.e. values of exchange), but in the proportion in which it has more developed its powers of production*” (List 1909, 112). These capacities are predominantly mental, i.e. specialized skills and knowledge, rather than physical labour. As List observes: “*Certainly those who fatten pigs or prepare pills are productive, but the instructors of youths and of adults, virtuosos, musicians, physicians, judges, and administrators, are productive in a much higher degree. The former produce values of exchange, and the latter productive powers*” (List 1909, 112).

By distinguishing between the (static) production of values of exchange and the (dynamic) productive powers, List overcomes one of the key divisions of classical political economy: the separation of labour as productive or unproductive. Cosmopolitical economists considered only those forms of labour that produced marketable goods to be productive, while other kinds of activities were labelled as unproductive. This false dichotomy contributes to the tendency to think about development as a short-term process, centring the market as a sole measure and source of value, and assuming that true economic value is created only through market exchange. Such a notion hinders long-term planning and the development of capacities for future production. Moreover, by emphasizing the importance of developing skills-based production powers, List expands upon Ricardo’s theory of comparative advantage, a concept that had been widely accepted by the cosmopolitical school as the primary justification for free trade. List’s views support the idea that as nations advance in their productive powers, they can assume new positions within the international division of labour, beyond those determined by their initial endowments³. Protectionism and the development of productive powers (achieved through industrial policy) are crucial precisely because they strengthen the productive powers that shape a nation’s comparative advantage within the global economy.

List’s theory of productive powers shows that, when it comes to understanding national development, focusing solely on the (static) current amount of wealth is not

³ In this sense, List anticipated Béla Balassa’s later theory of dynamic comparative advantage (see Balassa 1979).

enough. What matters more are the underlying forces that enable the generation of income in the first place. These include social and political institutions created and cultivated by the state; public infrastructure; the knowledge and skills of the population; institutions for production and advancement of knowledge; natural resources; and the moral and cooperative abilities of individuals. In contemporary terms, List's theory implies that a country's true level of development lies not in its current state of development, but in its capacity to reproduce and enhance that development over time. In this sense, productive powers can be understood as a society's *developmental capabilities*, nurtured and facilitated by an efficient industrial policy.

Several important lessons follow from this Listian observation. First, it goes contrary to the cosmopolitical school's approach, which denied the value-creating role of the state, claimed that "*political economy is almost synonymous with the economy of individuals*" and that "*politics are no essential ingredient of political economy*" (List 1909, 125). List argued that an effective institutional framework, maintained by the state, is essential for the development and the success of private enterprise. He wrote: "*Mere private industry does not suffice to maintain the commerce, industry, and wealth of entire states and nations, if the public circumstances under which it is carried on are unfavourable to it; and further, that the greater part of the productive powers of individuals are derived from the political constitution of the government and from the power of the nation*" (List 1909, 46). List stresses the importance of the nation as a connecting link between an individual and the whole of humankind, as a crucial vessel for developing productive powers.

The second key lesson is the central role of knowledge in productive powers. List refers to this as 'mental capital', thereby transcending classical political economy's labour theory of value, which held that value derives solely from labour. In contrast, List places knowledge and the institutions of knowledge production at the core of national productive powers. As he explains: "*The present state of the nations is the result of the accumulation of all discoveries, inventions, improvements, perfections, and exertions of all generations which have lived before us; they form the mental capital of the present human race, and every separate nation is productive only in the proportion in which it has known how to appropriate these attainments of former generations and to increase them by its own acquirements*" (List 1909, 110). This illustrates that List's theory of the powers of production is fundamentally dynamic, founded in the notion of continuous technological development and emphasizing that economic superiority is closely associated with the capability of leading it. The third lesson lies in List's view of human morality as a fundamental productive force, emphasising that economics cannot remain indifferent to ethical issues. Moral values, trust, civic virtue, and social cohesion are invisible yet essential forces that sustain long-term development.

A discussion of production forces, their relevance to and separation from the creation of market value, is relevant for the Europe of today. Over the past three decades, the European economic model has focused strongly on the short-term maximization of market value, while the strategic importance of nurturing and developing productive forces has been pushed to the background. The neoliberal development model was based on the assumption that Europe could keep pace with the US only if it kept its costs low, thereby increasing its short-term market competitiveness—what Aiginger (2019) calls the logic of a “low-road” strategy of development. This approach was reflected in reforms such as the retrenchment of the welfare state, the weakening of trade unions, the flexibilization of labour markets, and the removal of barriers that had previously limited the outsourcing of production (Stockhammer et al. 2016). These measures were seen as necessary to maintain Europe’s export competitiveness in global markets. The Eastern Enlargement also contributed to this strategy and further reinforced it, as the countries of the Eastern periphery offered a low-cost assembly base for European industry (which, as we argue later, limited the core’s incentives to innovate). The Eurozone crisis deepened this trend even further with the deliberate restraint of real wage growth and the policy of so-called internal devaluation aimed at further cost reductions (Johnston and Regan 2018; Wigger 2019).

However, while the competitiveness strategy of cost minimization contributed to the generation of market value in the short term, in the longer run, it undermined the development of production forces. Signs of this can be observed in numerous areas, from the erosion of effective state institutions to insufficient investment in public infrastructure and underfunded education and scientific research. These all have contributed to Europe’s persistent technological disadvantage. Furthermore, interpreting innovation and technological development as primarily market-driven processes⁴ in which the role of the state is limited to rule-setting poses a significant constraint to the emergence of any meaningful industrial policy. Innovation strategy was therefore effectively left to market mechanisms, while state-coordinated development of technological and productive capacities remained underdeveloped. As a consequence, the persistence of this model significantly contributed to Europe’s current struggle to compete with regions that have consistently devoted substantial resources to the development of their productive forces and technological capabilities.

Overall, the obsession with cost competitiveness obscured the importance of product competitiveness (or what Aiginger calls the “high-road” approach) in which institutional setting and knowledge are key sources of (innovation-driven) development. Moreover,

⁴ A good example is the Bangemann Report of 1994, which addressed the European implications of the information and communication revolution and identified the necessary responses primarily in market deregulation and liberalization (Schmitz and Seidl 2023).

in striving for price competitiveness, Europe has neglected moral and ethical aspects of development, as well as the fact that the EU should be a community based not only on economic integration, but also on a set of shared values. While Europe's focus on the powers of production has been strengthened with the resurgence of active industrial policy in the 2020s, whose goal is to improve the continent's production capabilities and especially to support its digital sector, we argue that this shift has not been nearly enough to prevent the continuing trend of Europe's (external) peripheralization. First, while the scale and scope of the EU industrial policy is unprecedented, it is still hardly comparable with those of other major global players, primarily the US and China. Based on recent events, including the addendum to the Draghi report and the battle over the EU's next budget that is just starting, there are only limited hopes that a decisive, unified European industrial policy strategy would be on the horizon.

Second, we argue that any focus on the development of production powers is severely limited in the peripheral regions. Producers in the peripheral countries (in the Eastern and Southern peripheries, as well as in the regions outside the EU) are in a subordinate position to those in the European core, facing challenges both in maintaining their existing market position and venturing into new areas of operation. The higher is the complexity of an industry (and the barriers to entry to such an industry, including know-how and initial investments), the lower is the probability that producers from peripheral regions will be able to take part. Furthermore, since the most innovative sectors in peripheral European regions are often controlled by investors from the core countries, an attempt to venture into more technologically complex production activities can be directly forestalled by the corporate headquarters, as acquisitions in the peripheral countries are often designated to serve for less technologically complex production⁵. The inability to venture into production activities that are more knowledge-demanding also has negative impacts on the population, its production culture, and the national skills base, which might deteriorate as the periphery faces deindustrialization, emigration of its most skilled workers, and atrophying of skills and knowledge as the whole production is centred around relatively menial manual tasks.

Lesson three: A more active and comprehensive industrial policy is needed

Europe's economic peripheralization, both internal and external, has direct impacts on the material well-being of the European people. One such example is deindustrialization, which is a threat not only to Europe's international competitiveness but also to its people and domestic politics. The danger is especially imminent in the case of complex

⁵ The divisive effects of innovation-driven growth on European regions are discussed e.g. by Wigger (2022).

industries, which can be argued to have beneficial effects on society and its culture, and whose loss due to deindustrialization tends to be especially damaging. As complex industries rely on tacit knowledge, advanced technology, and specific organization of production in industries with high barriers to entry, they are vulnerable to disturbances, and even temporary disruptions can lead to their deterioration and to subsequent deindustrialization, making an economic recovery very challenging.

As we explained above, List heavily emphasizes the importance of mental capital in the process of producing national wealth. In other words, he implies that every production task requires (among other inputs) a set of tacit knowledge, skills, and processes carried out by the individual workers; the more complex these are, the most important source of production powers the economic activity represents. While List illustrated this argument mainly on the distinction between agriculture and manufacturing (with the latter requiring more skills and thus being preferable), it can however also be applied to manufacturing tasks lower or higher in the value chain. As a set of production powers requires only a limited amount of tacit knowledge to be carried out, the situation becomes much more complicated the more specific and sophisticated the production tasks become. There are two implications that List draws from the fact that industries differ in their complexity and requirement of (tacit) knowledge: first, the more complex certain economic activity is, the more fragile it also becomes; and second, complex industries have cultivating effects not only on the skills of the workers and their mental capital, but also on the society, its culture and political culture more generally.

First, List explains that the amount of tacit knowledge and general diffusion of skills, organisational complexity of the operation, as well as the actual physical capital (i.e. buildings, tools, machinery etc.) required to carry out more complex production activities also renders them more fragile and vulnerable to disruptions. Specifically, as List warns the reader: *“A complex combination of productive powers and of property”* which *“had been created only by the exertions and endeavours of several generations”* can be disrupted very easily and such disruption, even a very short one, often has destructive, crippling effects, as the (tacit knowledge) contained in the individuals and production processes quickly vanishes (List 1909, 210). Furthermore, the failure of one sector often leads to the weakening of others, as the level of interdependence between different branches of manufacturing tends to be high (List 1909, 210–11).

For List, the gravest danger for the disruption of manufacturing production is war; however, even under “normal” circumstances, it is in the interest of private enterprises to disrupt the production of their competitors: *“By free competition it is often hoped to oblige the competitor to discontinue work which has compelled the manufacturer or merchant to sell his products under their legitimate price and often at an actual loss. The object is not merely to prevent the interruption of our own industry, but also to*

force others to discontinue theirs in the hope later on of being able by better prices to recoup the losses which have been suffered" (List 1909, 211). From the perspective of national development, an especially severe market competition (e.g. dumping) can be a reason enough for states to pursue industrial and trade protection policies to aid domestic enterprises even if these appear unprofitable in the short term. This is because for List, the real loss from industrial decline lies in the destruction of accumulated productive powers. In modern times, such consideration extends to the effects of deindustrialization induced by globalization and trade liberalization.

The second point that List makes with regard to the importance of complex industries is that industrialisation has an impact not only on a nation's wealth, but also cultivates its culture of freedom and knowledge. He argues that: *"In a country devoted to mere raw agriculture, dullness of mind, awkwardness of body, obstinate adherence to old notions, customs, methods, and processes, want of culture, of prosperity, and of liberty, prevail. The spirit of striving for a steady increase in mental and bodily acquirements, of emulation, and of liberty, characterise, on the contrary, a State devoted to manufactures and commerce"* (List 1909, 147). Elsewhere, List points out that the right type of economic specialization has the power to liberate individuals: *"The more industry and agriculture flourish, the less can the human mind be held in chains, and the more are we compelled to give way to the spirit of toleration, and to put real morality and religious influence in the place of compulsion of conscience. Everywhere has industry given birth to tolerance; everywhere has it converted the priests into teachers of the people and into learned men"* (List 1909, 154).

In other words, List observes that there is a direct connection between the occupation to which a majority of individuals in the nation is dedicated and the overall cultural development of the nation. In manufacturing occupations, one is required to *"develop and bring into action an incomparably greater variety and higher type of mental qualities and abilities"* than in other forms of occupation, such as agriculture (List 1909, 148). List also argues against the cosmopolitical school's notion that such cultural effects can be achieved through solely foreign trade rather than through domestic production (e.g. p. 111): *"...it is ten times more important to cultivate and secure the home market, than to seek for wealth abroad, and that only in those nations which have developed their internal industry to a high degree can foreign commerce attain importance"* (List 1909, 139). In modern times, this argument can be interpreted as an implicit critique of overly export-oriented growth strategies and focus on short-term competitiveness, which diminish and underestimate the role of domestic industry and the development of the domestic market as key sources of cultural development. Overall, for List, complex industries are not only the driving force behind economic modernisation, but also the basis for intellectual progress, social emancipation, and moral development, i.e. a

facilitator of cultural change and progress.

List's arguments about the fragility of complex industries and their cultural impact are interconnected, and both are highly relevant for the European economy of today. List's argument is in accordance with the criticism (widely acknowledged in the contemporary policy debate) that some effects of globalization can be harmful to a country and its society, including the outsourcing of manufacturing industries to cheaper regions, or the premature liquidation or privatisation of large industrial firms. Europe's peripheries have a long experience with the disruption of production powers caused by deindustrialization, be it the deindustrialization in the post-socialist countries in the 1990s, or in the wake of the Eurozone debt crisis in Southern Europe. In such cases, it is not merely the firm itself that disappears, but also the web of knowledge, organisational routines, and industrial networks that constitute its productive power. This may undermine the nation's future capacity to generate market value. The neoliberal framework in Europe failed to recognize this crucial contribution and allowed for the deindustrialization of a considerable number of European regions, leading to the deterioration of Europe's production powers, as well as to the rise of domestic political tensions.

Overall, we must acknowledge that, in recent years, Europe has recognised this problem and begun to strengthen its industrial policy. However, a key realisation is still missing as industrial policy remains to be thought of mostly as a matter of competitiveness, with its sole purpose being the improvement of firms' performance in global markets. However, from List's theory of productive powers, it is evident that industrial policy is never merely an economic issue. Rather, it represents a comprehensive approach aimed at developing productive powers, transforming the economic structure, and ultimately fostering cultural development. We must develop companies and industries that are culturally progressive for the economy of the Member State concerned. Following this approach, if industrial policy supports certain industries, we must also take into account its cultural impact.

Lesson four: Staying at the forefront of technological progress is a process of never-ending reinvention

Europe's neoliberal paradigm allowed for only a limited state guidance in the process of technological development, leaving it instead to the market and adopting a dominantly price competitiveness-based strategy when technological gaps began to occur. The Draghi report brings back an emphasis on innovation- and product-based competitiveness when it calls for the closing of the technological gap to the US and China. This would require Europe to move to the forefront of global technological development in order to halt what we call the external peripheralization. However, an implicit assumption of the Draghi report is that only the most developed economies of the European

core can participate in the new technological race, while no attention is paid to the role of Europe's peripheries, and to the (inter)dependency that characterizes Europe's economic structure. We argue that the core-periphery relationship greatly contributes not only to the limiting of space for technological innovation in the peripheral regions, but also limits the incentives for innovation in the core regions.

List devotes considerable portion of his book to the reflection of a nation's standing towards others countries with superior or inferior producing powers, to the assessments of the ways through which a more favourable position can be obtained (such as the support of domestic manufacturing and trade with equal partners) or how a nation's standing can be damaged (e.g. by opening its markets to more developed commercial partners). The idea behind these reflections is one of an unequal global economic system, in which the hierarchy of nations is to a considerable extent determined by their production powers and their long-term ability to guard these. List presents the development ladder as a set of stages, each characterized by a set of typical economic activities, as well as recommended trade and industrial policy: *"In the first stage, adopting free trade with more advanced nations as a means of raising themselves from a state of barbarism, and of making advances in agriculture; in the second stage, promoting the growth of manufactures, fisheries, navigation, and foreign trade by means of commercial restrictions; and in the last stage, after reaching the highest degree of wealth and power, by gradually reverting to the principle of free trade and of unrestricted competition in the home as well as in foreign markets"* (List 1909, 96).

List's conception of the economy is also dynamic, with technological progress keeping the whole system in motion and in a state of constant transformation. List clearly values some economic activities more than others, due to their beneficial impact on the prosperity of the economy, the people, culture, and society, as well as their importance for the security of a country. This means that at any given time, there is a set of activities (at or close to the technological frontier) that is desirable to possess not only for their beneficial economic and societal impacts, but also for the strategic reason of having the upper hand, as at any time, only a small set of nations is in their possession. The quotation above continues with List identifying countries that are in his time in each of the mentioned stages: Spain, Portugal and the Kingdom of Naples should make advances in agriculture and adopt free trade as a strategy of development, Germany and the US should promote the growth of manufacturing and adopt a degree of trade restrictions, while only Great Britain finds itself fully in the third stage in which its technological dominance allows it to revert back to the principle of free trade. List's further argumentation makes it clear that each stage in the development process comes with a set of geopolitical implications.

Since the development process is not only hierarchical but also dynamic, staying at

the top of the technological and production pyramid is not a process that can be done once and then automatically maintained in perpetuity. On the contrary, List implies that it is a process of constant reinvention, especially as industries at the top become more and more complex due to the general technological progress. This is in stark contrast to the conception presented by the cosmopolitan economists, who, according to List, assume that development comes naturally. As he writes, the cosmopolitical school “*fails to perceive that under a system of perfectly free competition with more advanced manufacturing nations, a nation which is less advanced than those, although well fitted for manufacturing, can never attain to a perfectly developed manufacturing power of its own, nor to perfect national independence, without protective duties*” (List 1909, 222). On the contrary, to List the development process is one of constant effort and reinvention, both for the developing nations and (implicitly) for those at the technological frontier.

In the European context, the global hierarchy of production is clearly understood by documents such as the Draghi report, just as are the social and geopolitical risks associated with slipping to a lower position in said hierarchy. The EU strategists also intuitively understand that at the core of Europe’s economic struggles lies the fact that the continent failed in the process of technological reinvention, or at least fell behind the other, more aggressive global actors, such as the US and China. The call for reform is a call for speeding up the reinvention process and moving Europe closer to the top of the production hierarchy. In other words, the geopolitical implications of the external peripheralization are perceived as risky enough to provide ground for significant reforms of the European economy.

However, we argue that the process of reinvention is at its core stifled by the existence of the internal periphery. Without acknowledging and addressing the problem of internal peripheralization, the EU has to rely only on partial and considerably less efficient solutions, and the external peripheralization continues and deepens, possibly taking on more risky forms and further endangering European political and societal stability. We argue that the internal peripheralization stifles European development in two major ways: first, it imposes considerable limitations on the space for innovation and technological reinvention in the European peripheral regions; second, it leads to diminished incentives for innovation in the core regions, which for a long time (most notably after the Eastern Enlargement) benefitted from additional (cost) competitiveness by relocating parts of their production to the post-socialist periphery (as well as capturing markets in these countries, in Southern Europe and in the non-EU peripheries).

Regarding the first barrier to technological reinvention, i.e. the limits to innovation in the peripheral regions, the core of our argument has been presented above: the technological, capital, and organizational dependence of the peripheral economies and

enterprises on those in the European core renders them less able to participate in the process of technological reinvention. We argue that these limitations on the peripheral countries' production capabilities have devastating effects on the European economy as a whole, as they represent an immense waste of potential, talent, and labour in peripheral countries that constitute a significant part of the EU. While the EU is ringing alarm bells about the loss of European productivity and devises strategies to fight this trend, it is, figuratively speaking, attempting to fight with one hand tied behind its back. The atrophying of skills, knowledge, and production capabilities in the peripheral regions, long overlooked in the strategies of European development, contribute majorly to the continent's problem of falling behind. As long as the peripheries are not given an opportunity to participate in the European economy in a more meaningful, sovereign way, the continent as a whole can hardly ever reach its full potential.

The other aspect of the barrier to technological reinvention caused by the existence of the internal periphery stems from limited incentives for innovation in the European core. We again argue that the Eastern Enlargement and its aftermath are a good illustrative example of such dynamics. The integration of the post-socialist countries with a skilled labour force but considerably lower production costs resulted in a boost for companies in the core. This happened as the newly acquired markets in Central and Eastern Europe, where foreign investors rapidly dominated sectors such as banking and retail, became valuable new sources of revenue, while simultaneously allowing companies from the core to escape from highly competitive Western European and other international markets (Vliegenthart 2010). Meanwhile, relocation of production to the peripheral countries with much lower wages and overall production costs also alleviated some of the pressure experienced by core European producers on other markets and boosted their cost competitiveness. However, the result is a weakening of incentives for investing in research and innovation, i.e. product competitiveness⁶.

The existence of the internal periphery, which serves as a source of easily obtainable revenue and production cost savings, has, for a long time, provided some degree of leeway to companies in the core countries and limited the pressure on innovation that they experienced. It is only recently, as the value extracted from the peripheries diminishes and (product) competition on global markets increases, that the dependence of the European core on the periphery is more clearly exposed. Just as with the limits to innovation experienced by the periphery itself, the core's reliance on extractive integration with the less developed regions greatly limits Europe's overall production

⁶ While we argue that there is a connection between the core countries' access to the cheap labour and unsaturated markets of the peripheries (especially the Eastern) and their lax approach to innovation investment in the 2010s, the issue remains to pose a considerable research gap. It is at least briefly discussed e.g. by Nölke (2021, 2025).

and innovation capacities. Overall, the existence of the internal periphery greatly limits Europe's ability of technological reinvention and significantly contributes to its deepening external peripheralization. The kind of decisions increasingly adopted by the EU in order to reverse this trend, including internal devaluation and loosening of regulations that protect European citizens and the environment, should be alarming.

Lesson five: Public interest should take a more prominent role in the development process

The success of the project of European integration is fundamentally dependent on its ability to serve the people of Europe (in the broadest sense, which also means surpassing the borders of the EU as such) and improve their lives in tangible, material ways. However, the EU's pursuit of export-driven growth based on internal devaluation rather than scientific and technological prowess increasingly puts at stake the interests of the European people, together with the acclaimed "European values". The real public interest needs to return to the centre of European economic and industrial policy. Based on List's theory, we argue that economic development is fundamentally a collaborative effort that should benefit the whole of society and that cannot be based on a paradigm rooted in neoliberal individualism. For Europe, this means not only solving the problem of its internal periphery, but also, more generally, starting to put emphasis back on the actual interests of the European people.

We have already explained that the nation is a key actor in List's conception of the development process, acting as a link between the individual and the global. Besides serving as the focal point around which development efforts are structured (which we have discussed at length above), List's emphasis on the importance of the nation suggests another important perspective that contradicts the teachings of the cosmopolitical school. That is the understanding of the nation as a society, a community, and of the development process as a process of collaboration of all members of the group that is a nation. For List, the "essential character of the natural law" that according to the cosmopolitical school animates economic activity and development, is: *"Not merely a division of labour, but a division of different commercial operations between several individuals, and at the same time a confederation or union of various energies, intelligences, and powers on behalf of a common production. The cause of the productiveness of these operations is not merely that division, but essentially this union"* (List 1909, 116). Elsewhere, regarding the development successes of various nations, List tells us: *"History everywhere shows us a powerful process of reciprocal action between the social and the individual powers and conditions"* (List 1909, 91). For the powers of production to emerge and be sustained, cooperation and coordination between numerous members of the community is necessary.

To explain his point further, List alters Adam Smith's famous story of the division of labour in the pin factory. It is not enough, List argues, that each worker in the factory is specialized in a particular task necessary for the production of the pin. What is equally important is the fact that their efforts are coordinated: *"The labour operations of all must be in the proper proportion to one another, the workmen must live as near to one another as possible, and their co-operation must be insured"* (List 1909, 117). If we imagine the opposite, for example, that each of the workers lives in a different country or speaks mutually unintelligible languages, the production of the pin as a result of the workers' cooperation ceases to be possible, or would be carried out only at a very high cost. Alongside Smith's principle of division of labour, List therefore introduces the equally important principle of union of labour, both being indispensable for any at least somewhat complex production task.

List continues by extending the principle over the whole economy of a nation: *"As the pin manufactory only prospers by the confederation of the productive force of the individuals, so does every kind of manufacture prosper only by the confederation of its productive forces with those of all other kinds of manufacture. For the success of a machine manufactory, for instance, it is necessary that the mines and metal works should furnish it with the necessary materials, and that all the hundred different sorts of manufactories which require machines, should buy their products from it (...) In like manner the entire manufacturing industry of a State in connection with its agricultural interest, and the latter in connection with the former, will prosper the nearer they are placed to one another, and the less they are interrupted in their mutual exchanges with one another"* (List 1909, 117). In other words, successful development requires coordination between industries, workers of different trades and skills, and the institutional power of the state.

On the other hand, List is highly critical of the individualism of the cosmopolitical school and the implications it draws for the development process (e.g. List 1909, 132). An individualistic view, argues List, cannot explain the prosperity of nations that was based on coordinated efforts: *"Nowhere do the advocates of that [cosmopolitical] system care to point out by what means those nations which are now prosperous have raised themselves to that stage of power and prosperity which we see them maintain, and from what causes others have lost that degree of prosperity and power which they formerly maintained. We can only learn from it how in private industry, natural ability, labour and capital, are combined in order to bring into exchange valuable products, and in what manner these latter are distributed among the human race and consumed by it"* (List 1909, 129).

Furthermore, List criticizes the cosmopolitical economy's insistence that an individual's pursuit of their own interest also naturally leads to the furthering of the national

interests, in other words that private vices do turn to public virtues: *“Robbers, thieves, smugglers, and cheats know their own local and personal circumstances and conditions extremely well, and pay the most active attention to their business; but it by no means follows therefrom, that society is in the best condition where such individuals are least restrained in the exercise of their private industry”* (List 1909, 126). While the exaggeration is intentional to articulate the point, List does warn against unrestricted leeway given to individuals pursuing their private interests, especially if it is through activities such as commerce, and against the expectation that such endeavours will unconditionally bring national prosperity. The merchant, List argues, acts in ways that might, but by no means have to correspond to the interests of the nation: *“Whether he by his importations and smugglings brings occupation and sustenance to hundreds of thousands, or whether they are thereby reduced to beggary, does not signify to him as a man of business, if only his own balance is increased thereby. Then if those who have been reduced to want bread seek to escape the misery in their fatherland by emigrating, he can still obtain profit by the business of arranging their emigration. In the time of war, he provides the enemy with arms and ammunition. He would, if it were possible, sell fields and meadows to foreign countries, and when he had sold the last bit of land would place himself on board his ship and export himself”* (List 1909, 186).

The strategy guiding the development of the European economy stands, as we argue, in a stark contrast to List’s insistence on cooperation and his warning against the unrestricted pursuit of individual interests. The inability to pursue a decisive, united industrial policy, combined with the willingness of European leaders to deepen the extractive internal peripheralization in order to accommodate the interests of ever-smaller groups at the top of social, political, and regional hierarchy, suggests that what still remains as the ruling principle is the Thatcherian motto that “there is no such thing as a society”. The process of Europe’s external peripheralization impacts not only the continents’ geopolitical standing, but crucially also the well-being and prosperity of its people – be it in or outside the EU borders. The consequences of the energy crisis in the wake of Russian aggression against Ukraine, the deepening economic stagnation of the continent as its cost-competitive export-driven growth strategy nears exhaustion, and the insistence on fiscal conservatism all contribute to the plummeting of living standards of the European people. For many in the peripheral countries, as well as in peripheral regions of the European core, this only adds another layer of struggle on top of years of battling deindustrialization, downward wage pressures, brain drain, and other consequences of peripheralization. And concerningly, it does not seem clear that Europe’s development and industrial policy strategy will be able to address these challenges.

The success of the European project depends on its ability to bring the continent political stability and economic prosperity. This imperative united the founding member

states in the post-war years and successfully drove the deepening and enlargement of the union; it brought in countries of the former Eastern bloc and ensured their membership in the Western world; and it still represents the ultimate political objective of the numerous countries outside the EU borders. However, as the ability of the European project to serve the people of Europe weakens, so do the aspirations that come with it, as Euroscepticism grows in member countries both old and new, and those countries that have waited for their accession process for years increasingly start to turn for support elsewhere, often to the EU's geopolitical foes. As long as the European development strategy and industrial policy remain based on the individualistic neoliberal paradigm, the threat to European integration will remain real and growing.

CONCLUSION

Over the past decades, Europe has been shaped by economic thinking based on neoliberal principles. This paradigm views economic development primarily from a short-term individualistic perspective, leading to an overt focus on exchange value achieved on the market as the dominant metric of economic success. This contributed to cost reduction becoming a central concern of Europe's development strategies, as product competitiveness was becoming ever harder to achieve, and over time to the gradual dismantling of the welfare state, the flexibilization of labour markets, underinvestment in infrastructure, the weakening of the trade union movement, the strengthening of migration from the European periphery to the core to supply cheaper labour, and to the suppression of wages. This mindset also dominated the Eastern Enlargement of 2004, which set up a framework of increasingly extractive integration and asymmetrical integration of the Eastern periphery, and the post-Eurozone crisis integration of the less industrialized Southern periphery.

Within this framework, the idea that the state should behave like a private household, "tightening its belt" and cutting expenditures, became the basic justification for internal devaluation policies. However, such a perspective completely overlooked the importance of productive powers in driving economic development. As a result, the development and destruction of productive powers was neglected both in the European core and especially in the peripheral countries. The responsibility for this development does not lie solely with the "old" EU member states, as the political elites on the periphery often adopt the neoliberal worldview and willingly submit to the logic of extractive integration. In any case, the consequences of the neoliberal-driven development are currently felt in Europe in the form of its external and internal peripheralization. The neoliberal paradigm regarded the market as the primary source of value. Therefore, the development of productive powers was also entrusted to the market, with the underly-

ing assumption that the self-regulating market mechanism would be capable of steering it towards technological progress and innovation-driven growth. This also allowed for the legitimacy of industrial policy to be called into question, and decision-makers accepted deindustrialization (especially in Europe's peripheral countries) as an inevitable cost that must be accepted in a market environment.

However, in the long term, this contributed to the loss of valuable productive capacity, as well as to the generation of considerable economic, political, and social turmoil, which eventually fuelled the rise of Eurosceptic parties. Entrusting technological development to the market led Europe to fall behind the US and China in technological progress, culminating in the deepening of its technological and digital dependencies. Meanwhile, internal peripheralization enforced Europe's lagging behind, as the peripheral regions were shut out from innovation-driven growth paths, and access to their cheap labour and unsaturated markets limited the core's incentives for innovation investment and technological upgrading. For a short time, the EU economy achieved significant market revenues, with especially Germany accumulating large export surpluses. However, as it becomes clearer as the 2020s progress, this model also contributed to the erosion of Europe's productive capacities and deepened its technological dependency on countries such as the US and China. The short-term market successes have obscured the fact that a dual process of external and internal peripheralization has been unfolding: one that could ultimately endanger technological sovereignty, economic prosperity, and political autonomy of the whole continent.

In recent years, EU policymakers have begun to more openly recognize and address this problem. This is reflected most notably in the Draghi report, which was supposed to serve as Europe's major warning signal, setting the EU on a path of change and opening space for a more assertive industrial policy. However, the paradigm shift remains acutely incomplete, as the underlying theoretical framework still preserves many remnants of the old paradigm. We join other voices critical of the EU's current economic policy (e.g. Patomäki 2021; Theodoropoulou 2022; Wigger 2022; EuroMemo Group 2025) and of the direction it seems to be heading, as the continuing unwillingness to address structural concerns, as well as issues of inequality, social security, environmental protection and many others pose grave risks to Europe's unity and prosperity.

In this essay, we warn in particular against the misleading and limited interpretation of "competitiveness", which remains a central focus of the EU's economic policy. In our view, it was precisely the excessive focus on cost competitiveness that contributed to Europe's current struggles in the first place. Unless it is clearly emphasized that we are now dealing with a new definition of competitiveness, one which is not only innovation-driven, but also inclusive to all European countries, there is a real danger that we will witness merely the repeated application of the same old recipe that already once failed us.

We refuse the argument that in order to enhance Europe's competitiveness, further cost reductions must be pursued by loosening regulations, including environmental ones, or by dismantling elements of the welfare state. These are, in fact, pseudo-solutions that may provide short-term relief for European companies, but in the long run perpetuate the very dynamics that erode productive and technological capacities and do not provide real corrections.

Consequently, it is a question whether the concept of competitiveness is the most appropriate one to capture the problem Europe is currently facing, and how far we can progress when relying on the old theoretical foundations. We argue that in order to address Europe's challenges, the neoliberal framework must be replaced in its entirety. In order to find a genuinely new path forward, we need to revive the developmentalist tradition of economic thought, of which one of the most indispensable figures is Friedrich List. In this essay, we have identified five key lessons that must be learned from List in order to move beyond the neoliberal paradigm—lessons that the new European economic and industrial policy should embrace:

- First, public interest must be brought to the forefront of European economic and industrial policy, including in its social, regional, and environmental aspects. This will contribute to viewing economic development as a complex process aimed at improving the prospects of the whole society rather than merely an individual market-based enrichment.
- Second, we must recognize the distinction between market value and productive powers, and understand that seeking greater market value through cost reduction is misguided if it ultimately leads to the destruction of productive and technological capacities. The new industrial policy should focus on the development of productive powers, particularly on the quality of state institutions, the scope and quality of mental capital, the creation of livable cities, environmental protection, and the strengthening of societal values and morality.
- Third, the new economic and industrial policy must take into account that development is not merely an economic issue, but also a cultural mission aimed at fostering societal development and progress. As a result, supporting specific industries should not be treated solely as a matter of market-directed competitiveness, but also with regard to their cultural significance and broader societal contributions.

- Fourth, technological development must not be left entirely to the market and guiding it should be a core task of industrial policy. One of the main reasons for our technological lag is the failure to recognize the leading role of industrial policy in technology and digital development, a role that is much more prominent in China and to some degree in the US, on which Europe is increasingly dependent. It must also be recognized that internal peripheralization discourages innovation-driven growth, both in the core and in the peripheral regions.
- Fifth, the new European industrial policy must transcend the logic of extractive integration that sought to integrate the peripheral regions merely based on free market principles. Instead, what is needed is an inclusive model of integration that treats less developed countries as genuine partners and actively supports the development of their productive powers.

We argue that the new European economic and industrial policy should be built upon these Listian foundations, which will limit the risk of repeating past mistakes and help alleviate the pressures of external-internal peripheralization. Nevertheless, we also argue that the crises that have intensified in Europe in recent years should not be seen merely as challenges, but also as opportunities to become more equal, just, and unified, and eventually a stronger, more constructive actor on the international scene. A crucial turning point in this process is the ongoing transformation of the world economy, driven by the increasing geopolitical turbulences. Within this evolving landscape, Europe has a key role to play: in the emerging international order, it should not speak merely as the junior partner of the US, but with its own voice that more strongly represents its values. It is essential for the EU to assert its normative power, its rule-of-law principles, and its value system, ensuring that the emerging transformation leads us closer to the establishment of a genuine global rule of law, rather than merely ushering in another cycle of hegemonic change. This transformation requires Europe to decisively shed the legacy of the neoliberal paradigm without abandoning the idea of freedom. In this process, the revival and 21st-century adaptation of Friedrich List's ideas and the broader developmentalist tradition of economic thought will be of central importance.

REFERENCES

- Aiginger, Karl. 2019. 'Harnessing Competitiveness for Social and Ecological Goals'. In *Competitiveness and Solidarity in the European Union: Interdisciplinary Perspectives*, First edition, edited by Paolo Chiocchetti and Frédéric Allemand. Routledge/UACES Contemporary European Studies. Routledge, Taylor & Francis Group. <https://doi.org/10.4324/9781351001809>.
- Baccaro, Lucio, and Jonas Pontusson. 2016. 'Rethinking Comparative Political Economy: The Growth Model Perspective'. *Politics & Society* 44 (2): 175–207. <https://doi.org/10.1177/0032329216638053>.
- Balassa, Bela. 1979. 'A "Stages Approach" to Comparative Advantage'. In *Economic Growth and Resources*, edited by Irma Adelman. Palgrave Macmillan UK. https://doi.org/10.1007/978-1-349-16229-1_11.
- Bohle, Dorothee, and Béla Greskovits. 2012. *Capitalist Diversity on Europe's Periphery*. Cornell Studies in Political Economy. Cornell University Press.
- Bürgisser, Reto, and Donato Di Carlo. 2023. 'Blessing or Curse? The Rise of Tourism-Led Growth in Europe's Southern Periphery'. *JCMS: Journal of Common Market Studies* 61 (1): 236–58. <https://doi.org/10.1111/jcms.13368>.
- Burroni, Luigi, Emmanuele Pavolini, and Marino Regini, eds. 2021. *Mediterranean Capitalism Revisited: One Model, Different Trajectories*. Cornell Studies in Political Economy. Cornell University Press.
- Chmelař, Aleš, Michal Pícl, Jan Bittner, Stanislav Volčík, and Aleš Nechuta. 2016. *Analýza odlivu zisků: důsledky pro českou ekonomiku a návrhy opatření: příspěvek k debatě o udržitelnosti českého hospodářského modelu*. Úřad vlády České republiky.
- ČMKOS. 2019. 'When Will Czech Wages Be Comparable to the Developed EU?' https://ipodpora.odborny.info/dms/soubory/index?file=summary-en_20191104153232.pdf.
- EuroMemo Group. 2025. 'EUROPE AND THE WORLD BEYOND THE POLYCRISIS: POSSIBLE FUTURES'. <https://euromemo.eu/wp-content/uploads/2025/04/EuroMemorandum-2025.pdf>.
- European Commission. 2024. 'European Innovation Scoreboard 2024'. <https://projects.research-and-innovation.ec.europa.eu/en/statistics/performance-indicators/european-innovation-scoreboard/eis-2024>.
- European Commission, ed. 2025. *The Future of European Competitiveness: Part A: A Competitiveness Strategy for Europe*. Publications Office. <https://doi.org/10.2872/1823372>.

- Frank, André Gunder. 2009. *Capitalism and Underdevelopment in Latin America: Historical Studies of Chile and Brazil*. Monthly Review Press.
- Gál, Zoltán, and Gábor Lux. 2022. 'FDI-Based Regional Development in Central and Eastern Europe: A Review and an Agenda'. *Tér És Társadalom* 36 (3): 68–98. <https://doi.org/10.17649/TET.36.3.3439>.
- Galgóczy, Béla, Jan Drahekoupil, Magdalena Bernaciak, and European Trade Union Institute, eds. 2015. *Foreign Investment in Eastern and Southern Europe after 2008: Still a Lever of Growth?* European Trade Union Institute (ETUI).
- Hall, Peter A. 2018. 'Varieties of Capitalism in Light of the Euro Crisis'. *Journal of European Public Policy* 25 (1): 7–30. <https://doi.org/10.1080/13501763.2017.1310278>.
- Johnston, Alison, and Aidan Regan. 2018. 'Introduction: Is the European Union Capable of Integrating Diverse Models of Capitalism?' *New Political Economy* 23 (2): 145–59. <https://doi.org/10.1080/13563467.2017.1370442>.
- Kersan-Škabić, Ines. 2020. "Core-Periphery" in the European Union – An Economic Perspective'. *Periodica Polytechnica Social and Management Sciences* 28 (2): 146–54. <https://doi.org/10.3311/PPso.13979>.
- Kordalska, Aleksandra, Magdalena Olczyk, Roman Stöllinger, and Zuzana Zavorska. 2022. *Functional Specialisation in EU Value Chains: Methods for Identifying EU Countries' Roles in International Production Networks*. Wiiw Research Report No. 461. The Vienna Institute for International Economic Studies (wiiw). <https://hdl.handle.net/10419/278172>.
- Kuc-Czarnecka, Marta, Andrea Saltelli, Magdalena Olczyk, and Erik Reinert. 2021. 'The Opening of Central and Eastern European Countries to Free Trade: A Critical Assessment'. *Structural Change and Economic Dynamics* 58 (September): 23–34. <https://doi.org/10.1016/j.strueco.2021.04.005>.
- List, Friedrich. 1909. *The National System of Political Economy*. Translated by Sampson S. Lloyd. Longmans, Green and Co.
- Myant, M. R., and Jan Drahekoupil. 2011. *Transition Economies: Political Economy in Russia, Eastern Europe, and Central Asia*. Wiley.
- Nölke, Andreas. 2021. *Germany's Dangerous Export Fetish*. April 2. <https://www.ips-journal.eu/topics/economy-and-ecology/germanys-dangerous-export-fetish-5091/>.
- Nölke, Andreas. 2025. 'Being The Center Makes You Lazy: The Demise of German Exportism'. Paper presented at 18th Pan-European Conference on International Relations.

- Nölke, Andreas, and Arjan Vliegenthart. 2009. 'Enlarging the Varieties of Capitalism: The Emergence of Dependent Market Economies in East Central Europe'. *World Politics* 61 (4): 670–702. <https://doi.org/10.1017/S0043887109990098>.
- Patomäki, Heikki. 2021. 'Beyond the Current EU Conception: Alternative Approaches to Structural Reform'. <https://helda.helsinki.fi/handle/10138/329038>.
- Pavlínek, Petr. 2023. 'The Transition to the Production of Electric Vehicles in Czechia and Slovakia'. In *On the Way to Electromobility - a Green(Er) but More Unequal Future?*, edited by Béla Galgóczi. ETUI.
- Pavlínek, Petr, Ricardo Aláez-Aller, Carlos Gil-Canaleta, and Miren Ullibarri-Arce. 2017. 'Foreign Direct Investment and the Development of the Automotive Industry in Eastern and Southern Europe'. ETUI. <https://www.etui.org/publications/working-papers/foreign-direct-investment-and-the-development-of-the-automotive-industry-in-eastern-and-southern-europe>.
- Poznańska, Joanna, and Kazimierz Poznański. 2015. 'Comparison Of Patterns Of Convergence Among "Emerging Markets" Of Central Europe, Eastern Europe And Central Asia'. *Comparative Economic Research. Central and Eastern Europe* 18 (1): 5–23. <https://doi.org/10.1515/cer-2015-0001>.
- Raudvere, Kadri, and ETAG. 2023. *Overview of the Estonian ICT Sector*. Estonian Research Council (ETAG). https://etag.ee/wp-content/uploads/2022/07/Overview-of-the-Estonian-ICT-sector-_2023.pdf.
- Reinert, Erik, and Rainer Kattel, eds. 2024. *The Other Canon of Economics: Essays in the Theory and History of Uneven Economic Development*. Anthem Press. Cambridge Core. <https://www.cambridge.org/core/product/983139422B-33C86474E917BE9CED9959>.
- Reinert, Erik S. 2006. 'European Integration, Innovations and Uneven Economic Growth: Challenges and Problems of EU 2005'. *The Other Canon Foundation and Tallinn University of Technology Working Papers in Technology Governance and Economic Dynamics*, The Other Canon Foundation and Tallinn University of Technology Working Papers in Technology Governance and Economic Dynamics, February, 05. <https://ideas.repec.org/p/tth/wpaper/05.html>.
- Schmitz, Luuk, and Timo Seidl. 2023. 'As Open as Possible, as Autonomous as Necessary: Understanding the Rise of Open Strategic Autonomy in EU Trade Policy'. *JCMS: Journal of Common Market Studies* 61 (3): 834–52. <https://doi.org/10.1111/jcms.13428>.

- Stiglitz, Joseph E. 2024. *The Road to Freedom: Economics and the Good Society*. First edition. W. W. Norton & Company.
- Stockhammer, Engelbert, Cédric Durand, and Ludwig List. 2016. 'European Growth Models and Working Class Restructuring: An International Post-Keynesian Political Economy Perspective'. *Environment and Planning A: Economy and Space* 48 (9): 1804–28. <https://doi.org/10.1177/0308518X16646373>.
- Süß, Juliana. 2026. 'European Autonomy in Space: Space Systems as a Pillar of European Defence'. In *SWP Comment 2/2026*, version 1. Stiftung Wissenschaft und Politik, German Institute for International and Security Affairs. <https://doi.org/10.18449/2026C02>.
- Susskind, Daniel. 2024. *Growth: A History and a Reckoning*. The Belknap Press of Harvard University Press.
- Synergy Research Group. 2025. *Cloud Market Share Trends - Big Three Together Hold 63% While Oracle and the Neoclouds Inch Higher*. <https://www.srgresearch.com/articles/cloud-market-share-trends-big-three-together-hold-63-while-oracle-and-the-neoclouds-inch-higher>.
- Tabb, William K. 1999. *Reconstructing Political Economy: The Great Divide in Economic Thought*. 1. publ. Contemporary Political Economy Series. Routledge.
- Theodoropoulou, Sotiria. 2022. 'Recovery, Resilience and Growth Regimes under Overlapping EU Conditionalities: The Case of Greece'. *Comparative European Politics* 20 (2): 201–19. <https://doi.org/10.1057/s41295-022-00280-x>.
- Török, László. 2025. 'Economic Convergence of Central and Eastern European Countries in the European Union'. *Political Research Exchange* 7 (1): 2507633. <https://doi.org/10.1080/2474736X.2025.2507633>.
- Vliegthart, Arjan. 2010. 'Bringing Dependency Back In: The Economic Crisis in Post-Socialist Europe and the Continued Relevance of Dependent Development'. *Historical Social Research* 35 (2): Volumes per year: 1</p>. <https://doi.org/10.12759/HSR.35.2010.2.242-265>.
- Vukov, Visnja. 2020. 'More Catholic than the Pope? Europeanisation, Industrial Policy and Transnationalised Capitalism in Eastern Europe'. *Journal of European Public Policy* 27 (10): 1546–64. <https://doi.org/10.1080/13501763.2019.1684976>.
- Wigger, Angela. 2019. 'The New EU Industrial Policy: Authoritarian Neoliberal Structural Adjustment and the Case for Alternatives'. *Globalizations* 16 (3): 353–69. <https://doi.org/10.1080/14747731.2018.1502496>.
- Wigger, Angela. 2022. 'The New EU Industrial Policy and Deepening Structural Asymmetries: Smart Specialisation Not So Smart'. *JCMS: Journal of Common Market Studies* 61 (1): 20–37. <https://doi.org/10.1111/jcms.13366>.



UNIVERSITY OF HELSINKI