



Premature deindustrialization and climate change: Global North and South perspectives

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Abstract:

The present article is an introduction to the special issue of the PSL Quarterly Review organized by José Luis Oreiro (University of Brasília) and Giulio Guarini (Tuscia University) with a selection of the best articles presented in the IV International Workshop of the Structuralist Development Macroeconomics Research Group (SDMRG), held at University of Brasília (Brazil) from 12 to 14 of June 2024. The articles presented in this special issue are about the relations between premature deindustrialization and climate change which are common challenges both for Europe and Latin America countries. This special issue cooperates for a better understanding of the nature of problems that both regions face.

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Europe and Latin America have common historical and cultural linkages, albeit with huge differences in per-capita income and standard of living, but they also must face similar challenges for years to come. The first challenge, which is common to the entire planet, is that of climate change, which demands a profound reshaping of economic activities to reduce greenhouse gas (GHG) emissions in an amount sufficient to prevent an excessive increase in global temperatures comparative to pre-industrial levels. The second challenge is the deindustrialization that both regions have been experiencing in the last 20 to 30 years, which is not only reducing the economic and political relevance of both regions in the world but is also an important cause of the stagnant wages, increasing income inequality, and political instability that occurred during these years.

These challenges are not independent from each other, neither in their common causes nor in the policies that can be adopted to deal with them. For instance, the premature deindustrialization of Latin American economies, mainly Brazil, is closely tied with the so-called Dutch disease, which is defined as the chronic overvaluation of the real exchange rate that results from the exploitation of natural resources for the export of primary goods (Oreiro et al., 2020b). The abundance of natural resources generated an *unbalanced productive structure* (Oreiro, 2023), which makes the



domestic manufacturing industry incapable of being competitive in both domestic and international markets at the level of exchange rate for which primary goods can be profitably exported (Guarini and Oreiro, 2023). The forgotten side of the Dutch disease is that the production of primary goods for export is a land-intensive activity that is usually associated with a change in the use of land – from forests to agriculture, mining, and grazing – causing deforestation and hence reducing an important source of carbon sink (Grazini et al., 2024). For European countries, deindustrialization seems to be linked not with the Dutch disease and GHG emissions but with the macroeconomic policies adopted in the aftermath of the 2008 financial crisis, as J. Ferreiro and C. Gomez (2025) show in their contribution to the current issue of the *PSL Quarterly Review*. A transition to a low carbon economy, however, can be an important stimulus for reindustrialization of European countries, since the so-called green activities can be a new driver of industrialization by fostering technological change (Guarini and Oreiro, 2023). Thus, a successful reindustrialization of both European and Latin American countries can contribute to addressing the climate change challenge that both regions face.

It is important to notice, however, that the perspectives for dealing with these problems are different. For Latin American economies, deforestation is much more important as a source of GHG emissions compared to fossil fuels than in Europe. This means that policies for reducing GHG emissions in Latin America must focus on deforestation and hence on the Dutch disease. For European economies, fossil fuels are the main source of GHG emissions, so policies must focus on ecological structural change and ecological technical progress that are capable of increasing the environmental efficiency of the economic system; that means reducing the GHG emissions per unit of output produced (Guarini and Oreiro, 2022, 2023).

This special issue of the *PSL Quarterly Review*, titled “Premature deindustrialization and climate change: Global North and South perspectives”, seeks to address these issues. The contributors collected here first presented at the IV International Workshop of the Structuralist Development Macroeconomics Research Group (SDMRG) held at the University of Brasília from 12 to 14 of June 2024 (4th SDMRG International Workshop).¹ The workshop was funded by the Ministry of Science and Technology of Brazil through the National Council for Scientific and Technological Development (CNPq). It also had the financial and technical support of the Regional Councils of Economics of the Federal District and the State of Goiás, as well as the Federal Council of Economics.

Structural Development Macroeconomics can be understood as an approach to the deep determinants of economic development in which the macroeconomic policy regime has a crucial role in explaining international growth rate differences, notably among middle-income countries (Oreiro et al., 2020a). Therefore, it strongly relies on a multidisciplinary but rigorous subject assessment. The SDMRG was founded in 2010, after the Great Financial Crisis, and currently has more than 30 members, from academic and policy circles in Latin America, Europe, and the United States. It is officially registered with CNPq and is certified by the University of Brasília.

This special issue comprises papers covering the abovementioned topics, bringing together senior and young scholars.

J.L. Oreiro, D.M. Teixeira, H.L. Filho, J.P. Machado, and L. da Silva (2025) investigate the relationship between economic complexity and the productive structure of the State of Goiás in Brazil, particularly in the context of environmental issues within international trade agreements. The collection of statistical data and the calculation of indicators concerning concentration of exports (by partners and products) reveal that Goiás’ production structure is concentrated in

¹ More information about the Research Group can be found at www.sdmrg.com.br

primary products and mining as well as in a few trade partners, notably China and Europe. This fact exacerbates its vulnerability to evolving environmental challenges and international trade regulations.

C. Grazini and G. Guarini (2025) focus on the impact of environmental policies on green export competitiveness through the moderating effect of economic complexity, by considering the ecological structural change as an ecological sophistication of technological, social, and cultural factors that can address environmental and socio-economic challenges, particularly in developing countries. The econometric estimations for OECD countries (from 1990 to 2016) suggest that stringent environmental policies and economic sophistication are complementary for integrating economic development, sustainable production, and international green competitiveness.

F.J. Missio (2025) studies the relationship between income elasticities of import and export demand and the real exchange rate, within a balance-of-payments-constrained growth framework. He theoretically identifies transmission mechanisms through which the real exchange rate influences these elasticities, and he explores the resulting implications. A key mechanism he highlights is the ability of the real exchange rate to induce structural changes towards more complex and technology-intensive sectors. Moreover, a formal multisectoral model is constructed to study how the real exchange rate can relieve external constraints.

J. Ferreira and C. Gomez (2025) analyze the performance of the manufacturing sector in Europe with reference to employment dynamic, economic growth, and catching-up processes. The findings of this study suggest that the evolution of the manufacturing sector is not a universal phenomenon as countries progress along their developmental trajectories. Furthermore, it is evident that the Global Financial Crisis played a pivotal role in elucidating the decline in manufacturing output and employment, as well as the deindustrialisation processes observed in select countries.

A.A. Marquetti, A. Miebach, H. Morrone, and S.V. Leite (2025) examine how fluctuations in exchange rates and changes in terms of trade impact profit rates by introducing a decomposition of the profit rate (Weisskopf, 1979) that incorporates these variables with reference to the Brazilian economy from 1980 to 2023. Their results reveal a nonlinear, U-shaped relationship between exchange rates and profit rates. Moreover, they show that improvements in terms of trade can elevate profit share, potential capital productivity, and capacity utilization, leading to higher profitability. However, the impact of terms of trade on profit rates is complex, as they also influence exchange rates.

J.E. Alatorre, G. Porcile, F. Sossdorf, and M. Torres (2025) illustrate that, in a center-periphery international system, the challenges to advancing on a sustainable development path are especially daunting and are reflected in differences in three rates of growth: the maximum rate of growth compatible with external equilibrium, the minimum rate of growth necessary for social inclusion, and the maximum rate of growth compatible with a target level of emissions. Analyzing the differences between these three growth rates defines a three-gap model in which the conditions necessary for those rates to converge can be discussed and quantified, using Latin American data.

Finally, L.F. de Paula and J.L. Oreiro (2025) describe the key drivers of Brazil's economic stagnation, with a statistical analysis of structural and cyclical factors, and they propose a strategy for sustained development, using a Keynesian-structuralist framework, specifically through a New Developmentalist agenda. This agenda requires the construction of a manufacturing industry that is able to meet domestic demand, conquer a larger and increasing share of world manufacturing exports, and achieve the sustainability goals concerning decarbonization and accelerated change in the environment.

Taken together, these contributions to this special issue show the theoretical soundness and empirical relevance of *structuralist development macroeconomics* for understanding and solving the challenges facing both Europe and Latin America. It is also important to stress that the contributors to this special issue, senior and young scholars of both Europe and Latin America, experienced during the 2024 workshop the importance of the exchange of knowledge between the global North and South.

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