



“According to recent estimates, trade in Global Value Chains (GVCs) accounts today for up to 70% of total trade. The emergence of GVCs has boosted growth across the globe but they also had non-negligible social and environmental costs. The post-pandemic recovery should be an opportunity to accelerate the transformation towards more transparent and sustainable GVCs.”

-Victor STOLZENBURG, Daria TAGLIONI, Deborah WINKLER

Image Source: Car manufacturing industries are among the most integrated supply chains in the world. They have been disrupted by the Covid-19 pandemic as many electronic components produced remotely are not available in assembling plants. The conversion to electric mobility following CO2 reduction targets is another illustration of profound changes. However, such transformations have not yet prevented the number of vehicles in circulation across the globe to continue rising steeply. Image by Nicolas J.A. Buchoud, all rights reserved ©.



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Sustainable and inclusive global value chains as an opportunity for developed and developing countries

The growth of global value chains (GVCs) in the 1990s and 2000s has been one of the central developments in international trade. As coordination and trade costs fell, it became

increasingly attractive for lead firms to offshore certain stages of their production and form regional and global production networks. According to recent estimates, trade in GVCs accounts today for up to 70% of total trade (OECD, 2021).

The emergence of GVCs has significantly boosted growth across the globe. Countries at all levels of development experienced income gains as they deepened engagement in GVCs. Developing countries that became integral to GVCs – Bangladesh, China, Costa Rica, and Vietnam among others – experienced the steepest declines in poverty. The increased degree of specialization in GVCs enhanced efficiency and durable firm-to-firm relationships promoted the diffusion of technology and access to capital and inputs (World Bank, 2019).

GVCs also delivered better jobs by offering more formal, productive and capital-intensive activities. Greater productivity led to an expansion in firm output and thus to increases in employment. Indeed, cross-country evidence and case studies show that GVC participation can on average be growth-enhancing and lead to economic and social upgrading (World Bank, 2019).

But participation in GVCs has also had non-negligible social and environmental costs. The environmental costs of GVCs are directly related to its growth effects: more economic growth led to more consumption and hence en-

environmental degradation (Sommer and Taglioni, 2022), and more distant trade in intermediate goods has also brought greater maritime pollution, more CO2 emissions, and excess waste.

The initial rise of GVCs occurred in a time when few firms had explicit environmental or social governance (ESG) goals. Rather, efficiency gains and labor cost differentials have been the driving force behind sourcing decisions up to the 2013 Rana Plaza disaster in Bangladesh, a turning point in GVCs. Since then, most lead firms developed serious ESG frameworks. But public and private strategies to counter the opacity of global value chains are still work in progress. This was apparent during the COVID-19 pandemic, which has also demonstrated that untransparent and unsustainable practices along the whole chain lower the resilience of GVCs during crises (WTO, 2021).

The post-pandemic recovery offers an opportunity to accelerate the transformation towards more transparent and sustainable GVCs. This holds especially because the momentum of the pandemic coincides with both a greater adoption of digital tools – necessary to enhance transparency in GVCs – and a growing political impetus to address climate change, as was most recently felt during COP26. Bringing transparency and – in some cases – reconfiguring GVCs plays a vital role in both recovery efforts and in the energy transition.

However, some countries are reluctant to embark on a green transition. This is partly due to the discordant views over the polluter pays principle versus the beneficiary pays principle. They reasonably argue that the countries responsible for the majority of emissions today and over the past decades should carry the primary burden of greening the world economy (Massenberg, 2021). But it is also driven by the concern that investments in greener production standards could hamper the competitiveness of developing economies by eroding their cost advantages.

In recent research, we show that these concerns might be misguided (Stolzenburg, Taglioni and Winkler, 2019). Using empirical tools, we show that countries benefit more from GVC integration if they adhere to social and environmental standards. We show, for instance, that higher levels of air pollution in production reduce GDP gains related to GVCs. In contrast, a higher number of environmental ISO standards increases GDP gains. We obtain similar findings for social and labor indicators such as stronger adherence to ILO conventions or lower wage inequality.

Our research also highlights that the positive role of environmental and social sustainability is stronger when providing inputs rather than buying inputs from abroad. This is consistent with the view that as final consumers have become more sensitive to unsustainable production, implementing fairer and greener production processes may not only be desirable but also beneficial. Instead of eroding

cost competitiveness in developing countries, suppliers complying with sustainable production standards become increasingly attractive to lead firms that wish or are under pressure to fulfill sustainability targets.

Sustainability and competitiveness in GVCs are by no means mutually exclusive, as highlighted by our research. Instead, these two factors can reinforce each other. This should alleviate concerns that a transition to a net-zero emissions economy widens the inequality between developed and developing countries. If lead firms and final consumers are willing to share the burden of greening the economy, suppliers in GVCs may be more likely to consider this transition as a chance to enter new markets with higher profit margins, which in turn will also help accelerate development.

References:

Johnson, R.C. & Noguera, G. 2017. A Portrait of Trade in Value-Added over Four Decades. *The Review of Economics and Statistics* 99 (5): 896–911.

Massenberg, J.R. 2021. Global Climate Change—Who Ought to Pay the Bill? *Sustainability* 13(23): 1-14.

OECD (Organisation for Economic Cooperation and Development). 2021. *Global Value Chains and Trade*. Paris. <https://www.oecd.org/trade/topics/global-value-chains-and-trade/>

Sommer, K. and Taglioni, D. (2022). Circular Economy in a globalized world – Leakage and Linear Production Havens.

Stolzenburg, V., Taglioni, D., & Winkler, D. 2019. Economic upgrading through global value chain participation: which policies increase the value-added gains?. In: Ponte, S., Gereffi, G., & Raj-Reichert, G. (eds.). *Handbook on Global Value Chains*. Cheltenham, UK: Edward Elgar Publishing.

World Bank. 2019. *World Development Report 2020: Trading for Development in the Age of Global Value Chains*. Washington D.C.

World Trade Organization (WTO). 2021. *World Trade Report 2021: Economic Resilience and Trade*. Geneva: WTO.