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SUSTAINABLE GROWTH IN THE WESTERN BALKANS? 
THE NEED FOR A NEW INDUSTRIAL POLICY

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IKE every other region on the planet, the Western Balkans—our frame of reference here is Bosnia and Herzegovina, North Macedonia, Montenegro, and Serbia—have suffered greatly during the COVID-19 pandemic. As policymakers begin to shift their focus on the day after, so to speak, they would be well-served to bear in mind the assessment that the region has a great potential to embark on the course of sustainable economic growth by transiting to renewable energy production and improving energy efficiency of its industries.

The exploitation of this potential, however, is hindered by a number of issues that go well beyond renewable energy policy perspectives: they require the pursuit of economically viable and environmentally sustainable policy initiatives to successfully transform the region’s manufacturing industries. The latter process is, however, tapped by the phenomena of what we can call “early-deindustrialization.” The problem of systemic market failures and persistent structural weaknesses of the economy pose a major threat to the successful green transformation of the economies of the Western Balkans countries.

Persistent low levels of technology penetration, as well as labor- and resource-intensive patterns of the region’s industrial competitiveness point to the growing wedge between the European Union and the countries of the Western Balkans. This wedge is technological and will not be reduced, much less reversed, unless strong policy initiatives are undertaken in this regard. The Western Balkans’ manufacturing sector is still in a stage of infancy in terms of technology content and the value added of its products, in addition to having a remarkably slow pace of productivity growth.

In light of these circumstances and in view of the growing empirical evidence pointing to the fact that the region has become a “pollution haven” of Europe, an integrated policy approach is needed to foster both a dynamic and sustainable diversification of the industrial and export base of the region’s manufacturing sector. The process of technology upgrading and increased energy efficiency of industries is hindered by an underdeveloped market and industry structure along with a hands-off approach by Western Balkans governments to the region’s industry transformation.

The unresolved issues of technology backwardness and resource intensity of prevailing industries present a multifaceted policy challenge. The related problems of coordination failures and underinvestment in new technologies require policy actions and concentrated efforts not only to correct for these market failures, but to go beyond a market failure approach in terms of industrial upgrading. An integrated policy approach should focus on building comparative advantage in technologically more sophisticated and less energy intensive industries.

In view of this, the region’s transition to a green economy should be based on strategic policy frameworks that integrate manufacturing, environmental, and energy sectors’ transition goals. A regional sustainable industrial policy initiative for the countries of the Western Balkans may provide a useful conceptual framework to design and develop effective policy measures for the region. It may thus provide resources necessary for the successful implementation of various policy initiatives, including financial and technical capacity for technology adoption and industrial upgrading in line with the European Green Deal—a strategy aiming to transform the EU into a modern, resource-efficient and competitive economy with no net green-gases emissions by 2050; decouple economic growth from resource use; and “leave no person and no place behind.”

Currently, the region lacks such policy initiatives. On the top of this, its industrial and innovation policies seemingly fail to address important aspects of industrial restructuring, including those
limited funding and limited coordination among local, regional, and central level authorities have proven difficult. The collection of data also seems particularly worrying, in terms of monitoring progress and improving policy measures.

In the Western Balkans, the concept of sustainable development mostly focuses on environmental policy concerns. Significant policy efforts have been put in place to protect the environment and comply with EU environmental standards. National strategies and new laws have been enacted and new environmental institutions have been built or strengthened—with significant efforts invested in effectively implementing environmental policies and monitoring progress thereof. In addition, most of the countries of the Western Balkans have induced financial incentives to private enterprises to enhance enforcement.

Despite these policy efforts, production and consumption patterns are fairly unfavorable, and progressing negatively in recent years. Energy efficiency remains at remarkably low levels compared to the EU average. Many of the countries of the Western Balkans are struggling with the effective implementation of environmental policies.

Limited funding and limited coordination among local, regional, and central level authorities have proven difficult. The collection of data also seems particularly worrying, in terms of monitoring progress and improving policy measures.

Although there has been a slight increase in employment rates across the Western Balkans in recent years (at least, in pre-pandemic times), structural and youth unemployment remain persistently high. Aspirations for emigration, including youth and labor emigration, clearly demonstrate that economic weaknesses are persistent and structural in nature. These trends will continue unless strong policy measures are taken to reverse them. So far, few policymakers understand the importance of the holistic approach to development that is inherent to the SDGs.

Sustainable growth agendas in the region, such as they are, reflect a sectoral rather than an integrated approach. Aside from a focus on environmental protection, efforts have been made to take steps towards the energy transition. Thus, the transition to green growth is predominantly perceived as a transition to green energy.

Policy efforts are concentrated on diversifying the energy production mix, and compliance with EU environmental regulation is made with no or limited
reference to the needs or priorities of the manufacturing industry. The region's regulatory reforms are, however, in line with the EU integration processes of the various countries and seemingly present the sole dimension encompassing green industry initiatives. Particularly worrying in this respect are the recent political commitments made by the countries of the Western Balkans to reduce CO2 emissions and increase CO2 taxes by 2030. This was done as part of efforts to comply with EU sustainability initiatives.

However, the imposition of stricter regulations, including rigid environmental standards, is passive in nature. Policy planning is not accompanied with an assessment of industries' needs and possibilities. Support measures for the successful green transition of industries have been mostly left out, including missing regional initiatives to support clean technology transfer and industrial restructuring. This fact is highly relevant, since such a misconceptualization of sustainable development policies may result in the further erosion of the manufacturing sector as well as hampering growth.

The focus of the policy agenda on decarbonization and the reduction of fossil fuel dependence is of utmost importance. However, a hands-off approach to manufacturing industries’ transition and sustainability issues may deprive the region of opportunities to successfully catch-up by means of technology upgrading and diversification. Such a misconceptualization of sustainable development policies may result in the further erosion of the manufacturing sector as well as hampering growth.

Imposing stricter environmental regulations without assessing the impact of these policy changes on industries' competitiveness could lead to hopeless policy outcomes. This proposition seems of no particular importance relevance to the region's policymakers. But it presents a major concern for the region's manufacturing enterprises, especially given the dominance of resource- and energy-intensive industries, in terms of both output and exports.

This concern is further supported by empirical evidence highlighting the adverse effect of environmental taxes on the competitiveness of manufacturing industries in transition economies like those of the Western Balkans. The results of a panel analysis applied to a sample of dirty industries reveal that CO2 taxes adversely affect the export performance of each industry group. The same results further suggest major shifts in production as well as changing patterns of specialization in line with differences in environmental compliance amongst the countries of the region.

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Imposing new rules of the game without plausible predictability to what these new rules will bring about seems highly irresponsible, both from the perspective of sustainable development and good governance. Discouraging or ruling out dirty industries by imposing higher CO2 taxes and integrating other (full) costs of environmental degradation into policy frameworks seems highly desirable. However, it may lead to enormously high economic and social costs in the specific context of the countries of the Western Balkans. These costs need be carefully considered and weighted against possible policy odds. Breaking away from this one-dimensional approach to sustainable growth is of utmost importance. In line with this, we will discuss both the rationale and possible policy options to ensure broad-based and holistic approach to sustainability in the Western Balkans.

Changing production patterns and increasing the energy efficiency of industries in the Western Balkans requires a strong and integrated approach. This in turn requires the close cooperation of industry and environment sectors in developing and implementing effective policy measures that would enable the green transformation of industry. These policy efforts have been less in evidence across the region.

**REFORM AND CATCHING UP**

Over the last two decades, the countries of the Western Balkans have made significant progress in terms of transition reforms, including macro-economic reforms and trade liberalization. However, the convergence of these economies has taken place at a very slow pace. The steady growth rates in the early years of transition were mainly driven by trade openness and a surge in FDI following the liberalization of the financial sector and massive privatization programs. The growth process has been characterized by very limited private sector growth and slow convergence in terms of total factor productivity growth. This has left the countries of the Western Balkans vulnerable to exogenous shocks. The economic recovery following the 2009 financial crisis started only in 2016, indicating that the economies of the Western Balkans are heavily dependent
on external market forces and foreign capital inflows. It thus comes as no surprise that the region has been hard hit by the COVID-19 crisis, which leaves the prospects for growth recovery bleak.

The region’s catching-up process has been predominantly hampered by limited progress in terms of industrial restructuring and growth. Trade liberalization and privatization policies have seemingly not been effective in utilizing capacities and the effective allocation of resources. While FDI has been found to significantly contribute to economic and productivity growth of the region’s economies, FDI inflows remained at very low levels in the aftermath of the 2009 crisis. The limited progress made by the countries of the region in catching up to the EU average (a recent World Bank study indicates that, at this slow pace of economic growth, Western Balkan countries need about 25 years on average to converge to average EU standards.), coupled with weak growth recovery patterns, seem to point to the structural weakness of the region’s economies.

This is associated not only with underdeveloped institutions, but foremost with underdeveloped markets reflected in a limited production and export base, disrupted supply-chains, underdeveloped forward and backward linkages, and market failures. These types of market imperfections lead to diseconomies of scale, low productivity rates, and persistent technological backwardness. On top of this, companies based in the region face severe problems related to both market and capital access; this hinders the further expansion of production and the diversification of product mix, which leads to underinvestment in (new) technology.

Market forces alone are not sufficient to spur reindustrialization and the dynamic catching-up of the Western Balkans. Industry level analyses on trade patterns and technological composition of industries based in the Western Balkans clearly reveal that these countries have a comparative advantage within a static economic framework in which labor costs and resource abundance play a key role. Trade specialization in low-technology and low value-added product groups of more capital- and technology-intensive industries seems persistent over the course of a given transition.

This wedge is both structural and technological in nature. Underdeveloped markets like those in the Western Balkans, lead to underutilization of capacities amid complexities, risks, and indivisibilities associated with the process of technological change. The cumulative and dynamic process of learning and acquiring technological capabilities is rife with imperfections and indivisibilities that demand systematic support through government policies.

There is no doubt that industrial policy has a key role to play in building and promoting competitiveness. What is important to understand, however, is that industrial policy design and policy mix need be understood in the right theoretical and regional- (and country-) specific context.

In view of this, in what follows, first, we briefly elaborate on the nature and character of industrial policy in the countries of the Western Balkans and point to policy failures. We also discuss the policy factors that pertain to non-utilized capacities and the limited growth performance of the region. Second, we develop arguments that support green industry initiatives in the Western Balkans. Such initiatives have not been initiated, leaving prospects for green growth and transformation of the manufacturing sector bleak. The policy initiatives favoring sustainable industries are then reviewed with a focus on EU policy practices and their relevance for the region.
These policy dimensions are important, but they are insufficient to promote technological upgrading within and across industries. Thus, policy measures are horizontal in nature and executed via competitive calls, which leads to limited policy effectiveness and impact. A 2018 analysis of the industrial and innovation policy mix of Bosnia and Herzegovina conducted by one of the authors of this essay concluded that policy measures are not well-matched with company needs and priorities: minimal support was extended for much-needed capital investments necessary for underpinning the scaling-up of production activities as well as for product and technology diversification.

Other relevant studies have revealed that critical sources of manufacturing sector growth have to do with enhancing imitative capabilities to foster technology acquisition and successful adoption existing technologies. This type of support measures tends to be fairly limited in size and scope in the region. Furthermore, the policy mix tends to focus on support for R&D, which is mostly irrelevant from the company perspective in view of limited research capabilities and innovation potential of local manufacturing enterprises. Moreover, the development and growth of technologically more sophisticated sectors is hampered by underdeveloped institutional infrastructure and the erosion of the national systems of innovation (NSI) across the Western Balkans over the course of the transitions of the region's countries.

The systematic withdrawal of the state was, in fact, a main characteristic of regional policy approaches to the transition. Recent efforts to rebuild NSI present in some countries of the Western Balkans, such as in Serbia and North Macedonia, including the setting up of innovation funds and scaling up support to innovation, have been encouraging although unfortunately insufficient.

Essentially, a horizontal type of industrial policy has been imposed on the Western Balkans through the conditionality principles embodied in the various Stabilisation and Association Agreements signed between the EU and each of the states under consideration. These policy measures are fairly incompatible with the nature of market failures and are ill-suited to correct for the type of market failures prevalent in the specific context of the region's industrial structure.

A strategic industrial policy would need to be broad-based; it should also exercise selectivity principles in the face of underdeveloped industrial structures and supply chains, with the aim of deliberately creating market distortions and fostering dynamic growth of particular sectors along the technology ladder. Furthermore, industrial policy should incorporate measures of direct government support, given the infant stage of many manufacturing industries, characterized by low productivity levels.

Moreover, ensuring resources for sustainable industrial transition is even more demanding amid necessary policy coordination among different sectors as well as knowledge and skills requirements. Recent sustainable industrial policy experiences indicate that both policy concepts and their scope play fundamental roles in steering this transition.

We know that contemporary EU industrial policies and practices place sustainability issues at their heart. We also know that, as a consequence, these have evolved from vertical to horizontal, and then from horizontal to broad-based, integrative industrial policies that focus on the convergence between economic efficiency and competitiveness, on the one hand, and environmental quality, on the other.
including incentive structures via rigid environmental regulation, may not be sufficient to spur fundamental innovations amid complexities, risks, and indivisibilities accompanying the process of technological change.

How knowledge and technology could be generated and transferred into productive sources of the green economy remains a challenge. Thus there are limitations to these concepts, and they need be addressed. As of now, fostering innovation collaboration and commercialization are at the center stage of this new policy initiative among the more developed EU member states. This is why less developed EU economies face different policy challenges that need to be further discussed.

Notwithstanding these matters, the principal concern of the economies of the Western Balkans countries is whether adherence to green industry initiatives imposes limitations to economic growth and hinders the successful restructuring of their respective industrial bases. In view of this, industrial policy concepts for Western Balkans economies should focus on and integrate policy measures relating to technological interdependencies and complementarities that require coordinated investments and joint company efforts. The results of a qualitative study conducted a University of Sarajevo graduate student, Aida Hadžić-Hurem, of 110 manufacturing enterprises from the dirty industries in Bosnia and Herzegovina depict problems and barriers faced by companies in terms of improving environmental management performance. These barriers range from access to capital and skilled workers, to unresolved technology acquisition issues associated with technological complementarities and interdependencies across firms and industries.

The principal concern of the economies of the Western Balkans countries is whether adherence to green industry initiatives imposes limitations to economic growth and hinders the successful restructuring of their respective industrial bases.

Designing, financing, and implementing support measures for technology transfer and the adoption of cleaner technologies is a complex and multifaceted process that goes beyond company-level capabilities. It is thus accompanied by number of issues external to a company, relating to technological interdependencies and complementarities that require coordinated investments and joint company efforts. The results of a qualitative study conducted a University of Sarajevo graduate student, Aida Hadžić-Hurem, of 110 manufacturing enterprises from the dirty industries in Bosnia and Herzegovina depict problems and barriers faced by companies in terms of improving environmental management performance. These barriers range from access to capital and skilled workers, to unresolved technology acquisition issues associated with technological complementarities and interdependencies across firms and industries.

Addressing these problems requires systematic government support. In light of this, and in view of well-documented difficulties accompanying the transfer and adoption of cleaner technology across various types of industries, we posit that the Western Balkans countries seemingly lack the requisite institutional capabilities and resources needed to develop and implement such knowledge and resource-intensive policy measures.

This important issue can be addressed only with the support of what is called the “international community” and particularly the European Union, and would need to include funding and technical assistance. Acquiring capabilities on the government side would of course be a prerequisite for effective policy adoption and implementation. And yet, regional policy initiatives and the international support to launch such initiatives has been lacking.

Instead, the focus of the EU in terms of green growth agenda for the region, has been primarily related to energy transition and requiring political commitment by Western Balkan governments to phase out CO2-based production, including energy.

Introducing higher CO2 taxes, irrespective of how these increases would impact companies’ and industries’ competitiveness, does not seem to be a viable policy option.

Increasing energy efficiency requires two things that have so far been lacking: a holistic policy framework and immense efforts to lessen energy intensity in the manufacturing sector. A plausible increase in energy efficiency needs to be based on increasing production value-added along the lines of cleaner technology adoption. Introducing higher CO2 taxes, irrespective of how these increases would impact companies’ and industries’ competitiveness, does not seem to be a viable policy option. Scholarly studies tend to show that environmental taxes undermine the competitiveness of firms in the specific context of less advanced emerging market economies, particularly those affecting trade and production patterns of dirty industries—which happen to be those in which the countries of the Western Balkans specialize. We posit that the process of technological upgrading of industries demands systematic government support to technology transfer and the adoption of cleaner technology. In the next section we discuss possible policy solutions.
Sustainable Policy Options

There are at least eight industrial policy levers that could be pulled so as to foster a more dynamic catching-up process for the countries of the Western Balkans. In particular, to help manufacturing industries transform their production processes by adopting cleaner technologies as well as by fostering more efficient use of resources, including energy efficiency. Each will be briefly addressed in turn.

First, mapping the potentials. Industrial mapping within (and across) the region is of outmost importance for developing effective policy measures to source potential competitive advantages. Comprehending technological complementarities and interdependencies within and across industries seems crucial for the dynamics and success of industrial restructuring and diversification.

Second, building inter-firm linkages and collaborative networks. Identifying existing and potential backwards and forwards linkages across companies and industries is crucial for developing effective policy measures targeting cooperation and collaboration among companies. In this respect, identifying technological and innovation collaboration potentials between manufacturing industries within (and across) the region may enhance synergies, economies of scale, and technological upgrading.

Third, fostering international collaboration. Collaboration with multinational corporations has been found to be an important determinant of productivity growth among transition economy enterprises. In view of this and growing empirical evidence suggesting that formal cooperation with foreign enterprises—e.g., OEM, subcontracting, licensing, strategic alliances—is an important source of technology transfer, knowledge spillovers, and synergies to encourage formal cooperation between Western Balkans-based companies and foreign enterprises. Policy measures should encompass strategic approach to cross-border collaboration, including diplomatic outreach, to attract the interest of multinationals in developing formal partnerships and linkages with companies from the region.

Fourth, technology acquisition and adoption. The manufacturing sector of the Western Balkans is dominated by “supplier-based industries,” to use a term pioneered by the late Keith Pavitt. Their technological upgrading rests on process rather than product innovation. Process related innovation requires, however, more complex and sophisticated forms of learning and technology transfer, such as reverse engineering, recruitment of experts and engineers from rival firms, and direct learning from superior technology firms. This is why policy measures need to be carefully designed and based on detailed case-studies to assess policy effects on technological upgrading and higher value-added of industrial development.

Fifth, the adequate provision of capital. A lack of sufficient access to capital presents an important barrier to business growth and technology acquisition across all industries in the region. Policy measures need be based on providing sufficient and subsidized financial resources in line with best practices. The scaling up of funds and improving procedures associated with capital provision throughout the region seems particularly important. At present, most capital provisions are implemented via credit lines executed by commercial banks. This, however, is an insufficient means to finance SME technology acquisition and undertake more risky investments. Considering alternative means of capital provision may therefore be necessary to ensure wider policy reach.

Sixth, support for innovation (imitation). Support for innovation needs to be based on a proper matching of demand and supply for new technology. The mix of standard policy instruments—e.g., R&D support schemes—that are prevalent in developed countries needs to be revised and adapted to match the needs of the region’s companies so that they may acquire imitative capabilities and adopt existing technologies, rather than innovation per se.

Seventh, rebuilding the region’s science and technology base. In view of the progressive erosion of NSI—as discussed earlier in this essay—the question of how to rebuild the region’s science and technology base need be carefully addressed. Building institutional infrastructure from scratch does not seem a viable policy option. Rather, the policy direction should give careful consideration to optimizing present science and knowledge resources in combination with thinking seriously about the potential for their revival along the lines of supporting industry-specific research centers and institutions, rather than broad-based science and knowledge infrastructure.

And eighth, integrating environmental concerns. As noted earlier, the sort
of policy framework under discussion should facilitate the green transformation of industries. This includes measures ranging from dealing with pollution (both air waste and land waste) to increasing energy and resource efficiency. It thus not only relates to traditional technology acquisition industrial policy measures but also encompasses a much wider array of policy instruments for clean technology transfer.

**Green Finance**

The financial sector will have to play a central supporting role in the green transformation to come. The financing of sustainable industry transformation and infrastructure projects requires new approaches for mobilizing and intermediating long-term finance in the region. As of now, these policy initiatives have been missing.

The need for greening the financial system and improving financial governance is evident. Ulrich Volz of the University of London’s School of Oriental and African Studies defines green finance as a comprehensive system comprising “all forms of investment or lending that consider environmental effect and enhance environmental sustainability.” Important aspects of green finance are sustainable investment and banking. Business investment and lending decisions are based on risk assessment and environmental screening in order to meet sustainability standards. In that process, many obstacles can be expected, and government support to promote and foster green projects is well substantiated.

For example, Western Balkans companies can expect to face both a lack of capabilities and experience in green lending in the process of seeking to secure a green loan. As a consequence, there is a short supply of green bankable projects as well as high transaction costs and long turnover period in the region. Having said that, it is important to underline that both green banking and sustainable investment is still a niche market in the Western Balkans. The provision of an adequate regulatory requirement is an inevitable precondition in the context of developing a financial market supportive of green investments. Another important consideration is that, by and large, insurance companies based in the Western Balkans do not offer services that cover non-life insurance risks, particularly those related to environmental and climate risks.

**Funds for those green investments will need to come from both private and public sectors, sourced both domestically and internationally. This will require the introduction of new concepts and new financial instruments, which should of course be adapted to local circumstances in order to be applied properly. EU support in this regard seems essential. Financial institutions and instruments such as green banks, green bonds, and climate risk insurance, including risk mitigation instruments, should have appropriate regulatory frameworks introduced in a coordinated manner. What is clear is that there needs to be a systematic approach to all this, which is not current the case in any Western Balkans country.**

**Worrying Implications**

In this essay we have reviewed recent policy initiatives with respect to the sustainable development and the green growth paths of the countries of the Western Balkans. We posited that the current sectoral approach to green growth prevalent in the region is not a viable policy option, since it predominantly focuses on green energy transition and environmental protection—with industrial development seemingly being shut-out from the policy agenda.

We argued that with such an approach, the economies of the region will continue to be held back from vertically integrating themselves into EU-based value-added chains of production of more technologically advanced sectors, and that this is likely to have an adverse effect on both costs and resource-based competitiveness following the EU-required compliance with more rigid environmental regulations across the region. The socio-economic impact of such regulatory and policy changes needs to be taken into account prior to its (passive) adoption.

We believe that the process of technological upgrading of industries demands systematic government support for both technology transfer and the adoption of cleaner technology. Industrial capacity has been diminished over the course of the transition and horizontal types of industrial policy have not been adequate to foster dynamic industrial restructuring and the technological upgrading of industries. The implications of the current one-dimensional approach to sustainability issues among the countries of the Western Balkans seem worrying—particularly in the face of EU member states’ high-technology growth agenda and the limited contribution of the Western Balkans countries to these sectors.